ACTION
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Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

December 7, 2010

MEMORANDUM

To: Members of the Board of Education

From: Jerry D. Weast, Superintendent of Schools

Subject: Elementary Integrated Curriculum Framework

Executive Summary

The purpose of this memorandum is to request final approval of the Montgomery County Public Schools (MCPS) Elementary Integrated Curriculum (EIC) Framework (Attachment A). Curriculum frameworks are submitted to the Board of Education (Board) as required by Policy IFA, *Curriculum,* and in support of Goal 1 and Goal 2 of *Our Call to Action: Pursuit of Excellence*, the MCPS strategic plan. Staff members have worked collaboratively since 2007 to develop the EIC. This process began with input and feedback from teachers, principals, and parents through focus groups and established committees and advisory meetings. This input and feedback, plus the current MCPS curriculum and the Common Core State Standards (CCSS) adopted by the Maryland State Department of Education (MSDE) on June 22, 2010, became the foundation of the EIC Framework. On September 27, 2010, the Board took tentative action on the EIC Framework.

Since that time, additional feedback has been collected from a variety of stakeholders through focus groups, the MCPS website, and regularly scheduled meetings. Although feedback was solicited on the EIC Framework—which is the structure that articulates what students are expected to know and be able to do by each grade level in each subject area—most of the feedback received focused on the implementation of the curriculum, or features of the EIC, such as assessments, the online professional learning community, professional training and development, and parent access to the EIC. Very few comments were received on the framework itself. The feedback on the implementation will be used by the EIC Development Team as it continues to develop this innovative curriculum.

Background

MCPS' curriculum frameworks in English/reading language arts, mathematics, science, and social studies were approved in 2001, setting the stage for systemwide curriculum reform. In 2006, frameworks were approved in art, health, music, and physical education, following state approval of standards in those areas. In 2007, work began to integrate the existing MCPS curriculum at the elementary level. MCPS responded to research and ongoing stakeholder feedback, including comments from parents, to design a new model for curriculum implementation that included the following:

- Creative and critical thinking, as well as academic success skills
- Integrated curriculum to maximize instructional time and to save teachers' planning time
- Small group instruction in reading and mathematics
- State curriculum requirements in all content areas
- An all-electronic platform for disseminating curriculum

The Integrated Kindergarten Curriculum was developed in 2008 and was piloted in 90 schools during the 2009–2010 school year. Feedback from teachers, parents, and administrators was incorporated in the EIC, which is being voluntarily implemented in kindergarten and Grade 1 in 112 elementary schools. The new integrated model provides teachers with instructional strategies and resources for all content areas including reading, writing, mathematics, science, social studies, art, music, physical education, health education, and information literacy. The content for all subjects in the EIC is sequenced and organized to maximize the natural connections among content areas. In addition, during each marking period, the work in the integrated curriculum is tied together through the study of a critical or creative thinking skill and an academic success skill.

Development of Curriculum Frameworks

The EIC Framework sets the expectations for student learning that will enable principals, teachers, students, and parents to understand what students are expected to know and be able to do in each discipline at each grade level or at the end of a course. The framework is based on the standards, objectives, and philosophy of the MCPS mathematics, reading/language arts, science, and social studies frameworks approved in 2001 and the art, health, music, and physical education frameworks approved in 2006. The updated framework also reflects changes to mathematics and reading/language arts standards necessary to meet state adoption of the CCSS and includes new information literacy standards developed by MSDE.

The CCSS are very similar to the MCPS curriculum in scope and expectations, but the standards in mathematics have a greater emphasis on mastery of number concepts in the elementary grades. In addition, the CCSS identify a number of concepts as on grade level that previously had been classified by MCPS as above grade level. In addition, some content has been accelerated by a grade and some overall content has been added or deleted. There is greater emphasis on writing in the English/language arts CCSS than in the 2001–2010 MCPS curricula.

To maximize instructional time and to enhance instruction on the Thinking and Academic Success Skills, MCPS rearranged the content standards and indicators within each grade level to take advantage of the natural connections among content areas. The result is a curriculum that helps teachers plan more effectively and develops the critical and creative thinking and academic success skills that will help students build the habits that mark the academic mind—interpret critical perspectives, analyze complex sets of data, solve problems collaboratively, and understand connections among complex ideas. The integration of thinking skills and integrated content allows teachers to create authentic, engaging, and productive learning experiences for students. These changes, along with the curriculum content realignment to take place with the implementation of the CCSS, also will allow MCPS to place a greater emphasis on the development of writing.

Stakeholder Involvement

Stakeholder involvement and input are critical to the curriculum development process, as they were during development of the 2001 curriculum frameworks previously approved by the Board of Education. Central services staff members, principals, teachers, parents, and representatives of higher education and/or businesses reviewed the development of the Integrated Kindergarten Curriculum from 2008 through June 2010. This input, along with the MCPS curriculum and the CCSS, adopted by MSDE on June 22, 2010, are the foundation for the EIC Framework.

From September 2010 through November 19, 2010, staff members in the Office of Curriculum and Instructional Programs collected and considered stakeholder feedback from a variety of focus groups and regularly scheduled meetings. In addition, feedback was obtained through the MCPS website from October 15, 2010, through November 19, 2010. Attachment B lists the groups that provided feedback from September through November 2010. Throughout the fall, additional comments were gathered at various venues, including systemwide meetings such as the monthly Elementary Principals' Curriculum Update and the Office of Curriculum and Instructional Programs (OCIP) Principal Advisory Committee meetings.

Feedback was requested on the Elementary Integrated Curriculum Framework. This feedback, along with the Maryland state curriculum, the recently adopted CCSS in English/language arts and mathematics, and MCPS expectations form the foundation for the EIC Framework. Only six comments of the more than 125 comments received focused specifically on the frameworks.
Throughout the 12 years of our reform efforts, we have experienced the challenges associated with systemic change. We have learned that frequent and two-way communication, ongoing opportunities for input and feedback from practitioners, and continuous improvement are required to effectively manage change. We are listening and learning from our stakeholders and incorporating feedback to create a stronger instructional program. Attachment C summarizes the positive feedback received on the EIC, while recommendations and considerations are listed in Attachment D. Comments gathered from other venues in addition to the focus groups and the MCPS website are reflected in Attachment E.

What Is Working Well: Elementary Integrated Curriculum

When providing feedback on the EIC, various stakeholders, including teachers, school-based administrators, school-based specialists, and parents focused primarily on the implementation of the curriculum and less on the framework itself. The majority of positive comments can be organized into the topics noted below.

Curriculum is Descriptive Not Prescriptive—Stakeholders responded favorably to the EIC being descriptive and not prescriptive. They said it tells teachers what to teach and not how to teach it, respecting teachers' professional judgment. They noted the variety of suggested strategies and appreciated the freedom the EIC provides for teachers to teach concepts in their own way while planning together as a team.

Integration of Content and the Thinking and Academic Success Skills—The majority of positive comments focused on the integration of all content areas and the Thinking and Academic Success Skills (TASS). Stakeholders appreciate the focus on science and social studies and see the integration as a way to engage students and to address the whole child. The EIC will help teachers to better understand their students, one commenter stated, while another said it will allow children to develop the ability to think of novel ways to approach situations and solve problems. The TASS are seen as important and well defined.

Online Professional Learning Community—The online professional learning community was cited as a positive feature, particularly the ability to post and rate activities and resources. Sharing resources and ideas across the county and being able to see what others are doing are additional positive aspects of the EIC. The various views of curriculum indicators across content areas and by quarters available on the *my*MCPS portal were recognized as fostering teaching and monitoring skills across content areas and across the school day. The EIC Development Team reports that between 400 and 600 individual staff users a day are logging on to the site.

Recommendations and Considerations: Elementary Integrated Curriculum

When soliciting feedback on the EIC Framework and the Thinking and Academic Success Skills, recommendations and considerations focused less on the framework and more on the implementation of the curriculum. Six comments were directly related to the EIC Framework. The comments and responses are detailed in the following chart.

EIC Framework
Recommendations and Considerations

	Comment	Response
1	Although elements of Universal Design for Learning (UDL) were mentioned in the superintendent's September 27, 2010, memorandum to the Board, on the EIC Framework, UDL was not specifically mentioned in the framework.	UDL is one of the foundational design principles of the EIC. An instructional specialist position on the team was purposefully hired to focus on UDL and all EIC writers and supervisors have been trained on UDL techniques in curriculum. Each model lesson adheres to the principles of UDL and provides teachers numerous examples of how to help students access and master curriculum goals. Though it was not specifically mentioned in the framework, a document consisting mainly of state required content skills and knowledge, reference to the foundational principals of UDL will be added to the framework.
2	When assessing goals and objective, uses broad terms that allow students to demonstrate their knowledge and skills using a variety of means, consistent with the principles of UDL. Do not use more limited terms—such as write, explain, describe, narrate, and dictate—which prevent students from showing what they can do if they have difficulty communicating in these ways because of a disability or limited English proficiency.	UDL will continue to be part of the curriculum when articulating how students access knowledge (instruction) and the ways in which they demonstrate their learning (assessment). Additionally, principles of UDL will continue to be part of professional development for teachers and other users of the EIC.
3 4	Include handwriting and keyboarding. Include handwriting, with the increased emphasis on writing.	Handwriting and keyboarding are part of the English/language arts and information literacy curricula, respectively. The CCSS increased emphasis on writing will help students refine handwriting and keyboarding skills.
5	Place more emphasis on science and scientific fact and basic American history.	The EIC Framework includes foundational knowledge and skill requirements in science and history, including American history.
6	The math curriculum seems weak. While providing more depth to number-focused areas, this math curriculum is not seen as challenging.	The math content standards in the EIC are based on the CCSS, which are widely regarded as a challenging math curriculum designed to be competitive with other nations, such as Singapore and Japan, that are experiencing success in math.

Recommendations and considerations received on the implementation of the EIC can be clustered into the following themes:

Curriculum and Instruction—Comments or questions were raised related to extending this sort of integration through Grade 12, giving students more time to think by slowing down the pace of instruction, and building concrete materials and guides for teachers. One commenter questioned if the EIC had a global perspective and how the EIC helped to prepare students to live in the 21st century, both culturally and technologically.

Professional Development—There were many recommendations on the need for professional development, not just on the technology related to the online environment, but also regarding teacher effectiveness. Using the sample lesson plans in professional development was cited as a recommendation. Online training has been offered to all teachers, including webinars that are archived for teachers to review at any time and short professional development pieces (usually a video or PowerPoint) that target essential skills in implementing the EIC. A series of voluntary face-to-face training in a computer lab setting for all teachers is being conducted. Additionally, upon request, the EIC Development Team conducts face-to-face training for school instructional leaders, including administrators, staff development teacher, math content coach, reading specialist, and art, music, and physical education teachers. Despite reductions in professional development resources caused by the current difficult financial situation, MCPS is planning additional training for the upcoming school year.

Parent Access to the EIC—Adding a portal for parents was seen as a way to enhance parent involvement. More communication with parents as to the rationale for and research behind the EIC was stated as a continuing need. Future design of the Instructional Center on *my*MCPS includes technical requirements for parent access. OCIP staff members will work with the Department of Family and Community Partnerships in developing content for the parent portal. In the meantime, parents can access updated information about the EIC by going to the MCPS website at http://www.montgomeryschoolsmd.org/curriculum/integrated/.

Special Populations—Another topic of interest was guidance for special populations, including students with disabilities, English language learners, and advanced learners. The curriculum was designed using UDL principles, ensuring a wide variety of ways for students to access curriculum as well as demonstrate their understanding. An instructional specialist position on the team was purposefully hired to focus on UDL and all EIC writers and supervisors have been trained on UDL techniques in curriculum. Differentiation continues to be delivered primarily through small-group instruction. The model lessons included in the EIC are designed to reach a variety of students, including English language learners, students with disabilities, and advanced students. Each lesson also will include suggestions on how to adjust instruction for students who already know the material or are struggling to master the objectives.

Accountability—Comments regarding accountability ranged from developing Look Fors for administrators and teachers to evaluating the curriculum. Look Fors are being developed and will be distributed to principals and teachers over the next few months. As part of the Investing in Innovation (i3) grant, an external evaluation—looking at implementation and outcomes—will be conducted on the EIC.

Access to Technology—Considerations also were expressed related to the availability of technology and high-speed Internet connection across the county. All elementary schools received technology updates during the summer of 2010, including Internet Explorer 8.0 and Silverlight, which are required to access the EIC. The current network in elementary schools is sufficient to handle the demand of the EIC. However, all schools are scheduled to be upgraded to the county's FiberNet, a high speed fiber optic network, before the end of calendar year 2013 through an *American Reinvestment and Recovery Act of 2009* grant.

Additional Comments: Elementary Integrated Curriculum

In addition to the feedback collected at focus group meetings and via the MCPS website, feedback also was received from principals, teachers, and parent representatives. Comments were gathered on the three topics listed below in addition to those already mentioned.

Availability of Assessments—All summative assessments remain the same with the exception of mathematics. The MCPS Assessment Program in Primary Reading will continue to be administered three times per year using the hand-helds. Based on the alignment with the CCSS, mathematics unit assessments will need to be replaced. Since many of the indicators in the EIC are the same as those in the previous curriculum, teachers can use the formative assessments previously developed. Additionally, each sample learning task in the EIC includes a formative check for understanding.

Alignment to Standards-based Grading and Reporting—With the adoption of the CCSS, standards-based grading and reporting requires realignment. The EIC provides a good way to align standards-based grading and reporting to the CCSS and incorporate feedback from the elementary Online Achievement and Reporting System schools to end up with a better overall result. Standards-based grading and reporting will be fully aligned to the EIC for implementation next year. It is anticipated that specifics will be shared with teachers and principals in the spring.

Availability of Materials and Resources—Sample learning tasks may reference a book, for example, "Use a book such as *Chicka Chicka Boom Boom*, or a similar book that develops concepts of print…" Books currently referenced in the EIC are available in most schools. In cases in which the EIC Development Team believes a title is essential to the curriculum and is not widely available, the book is purchased centrally to send to schools.

Next Steps

Final approval of the EIC Framework sets the stage for the continued development of the EIC and the alignment of our curriculum to the CCSS. Included in the development process are ongoing opportunities to listen and learn from our stakeholders. Input and feedback will be reviewed and incorporated, as appropriate.

The EIC will not include instructional guides that have been used in the past. Instead, the curriculum lives in a digital environment in the form of the online learning community that includes planning tools, professional development, sample learning tasks, and instructional resources for teachers.

We cannot underestimate the impact that change has on an organization. Although most of the indicators in the EIC are taken directly from the existing curriculum, the new format, added resources, alternate assessments, and new Look Fors create a learning curve for all users.

Future development of the online learning community will include a portal for parents to access resources. In the interim, parent resources for the EIC are located on the MCPS website at http://www.montgomeryschoolsmd.org/curriculum/integrated/.

The following resolution is presented for your consideration to conclude this stage of the curriculum development process.

WHEREAS, On February 13, 2001, the Montgomery County Board of Education approved a curriculum policy that guides the development, implementation, and monitoring of curricula throughout the school system; and

WHEREAS, The Montgomery County Board of Education approved the curriculum frameworks in English/language arts, mathematics, science, and social studies on July 2, 2001, and approved frameworks in visual arts, general music, health education, and physical education on April 20, 2006; and

WHEREAS, The Maryland State Board of Education adopted the Common Core State Standards in English/language arts and mathematics on June 22, 2010; and

WHEREAS, Montgomery County Public Schools has created the research-based Thinking and Academic Success Skills Framework; and

WHEREAS, Montgomery County Public Schools has woven the Thinking and Academic Success Skills into the existing curriculum frameworks along with the Common Core State Standards to form the innovative Elementary Integrated Curriculum; and

WHEREAS, Feedback and input from stakeholders have been used to develop and refine the Elementary Integrated Curriculum and Thinking and Academic Success Skills Framework; now therefore be it

Resolved, That the Montgomery County Board of Education grant final approval of the MCPS Elementary Integrated Curriculum Framework, which combines existing elementary curriculum, Common Core State Standards, and Thinking and Academic Success Skills as the foundation for the development of the Elementary Integrated Curriculum.

At the table for today's discussion are Mr. Erick J. Lang, associate superintendent, Office of Curriculum and Instructional Programs; Mr. Martin M. Creel, director, Department of Enriched and Innovative Programs; Ms. Theresa A. Cepaitis, director, Elementary Integrated Curriculum Team; and Mrs. Deann M. Collins, principal, Montgomery Knolls Elementary School.

JDW:jls

Attachments

Elementary Integrated Curriculum Framework

Montgomery County Public Schools

The Elementary Integrated Curriculum (EIC) Framework is the guiding curriculum document for the Elementary Integrated Curriculum and represents the elementary portion of the Montgomery County Public Schools (MCPS) Pre-K–12 Curriculum Frameworks. The EIC Framework contains the detailed indicators and objectives that describe what students should know and be able to do in Kindergarten through Grade 5 in Art, General Music, Health Education, Information Literacy, Mathematics, Physical Education, Reading Language Arts, Science and Engineering, and Social Studies.

The indicators and objectives in this framework for Art, General Music, Health Education, Physical Education, Science and Engineering, and Social Studies are from previously approved frameworks. The indicators and objectives for Reading Language Arts and Mathematics are from the Common Core State Standards. The indicators and objectives for Information Literacy are from a recent Maryland State Department of Education update to Information Literacy standards. The standards and indicators for the Thinking and Academic Success Skills were developed by MCPS based on research and impementation practice.

The EIC Framework is divided into three major sections: Philosphy and Rationale, Grade Level Overviews, and Detailed Content Objectives by Grade Level. The Philosphy and Rationale section contains the overarching Pre-K–12 Frameworks for the content areas and detailed framework for the Thinking and Academic Success Skills. The Grade Level Overviews are a single page synopsis of the Desired Outcomes for all contents by grade level. Desired Outcomes are a high level synthesis of the content area objectives and will form the basis of measurement topics for reporting purposes. The Detailed Content Objectives by Grade Level go down to the objective level for each content area at each grade, representing all that students should know and be able to do at that grade level.

The EIC Framework is the source of "what to teach" for the online Instruction Center, the primary tool teachers use to plan instruction. The Instruction Center contains resources and tools that guide "how to teach" and information for implementing the Elementary Integrated Curriculum. The resources and tools in the Instruction Center are designed using principles of instruction, including Universal Design for Learning, Baldrige tools, Understanding by Design, differentiated instruction, standards-based instruction, equitable practices, and working with diverse learners. Each of these instructional philosophies is intended to provide higher expectations and more access to the curriculum for each child. The principles of Universal Design for Learning, flexible presentation of instruction, flexible student engagement, and flexible student expression of understanding best summarize how greater access and high expectations are achieved for each child – even when national or state standards use language that may appear restrictive for some learners.

Montgomery County Public Schools
Elementary Integrated Curriculum Framework

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Thinking and Academic Success Skills Framework

Kindergarten – Grade 5

Montgomery County Public Schools

Purpose:

The Thinking and Academic Success Skills Framework provides the rationale, research base, and scope and sequence of Thinking and Academic Success Skills (TASS) standards and indicators that form the nucleus of integrated instruction. Content indicators from the Curriculum Frameworks are wrapped around the TASS indicators in this document to provide a rich instructional experience. The indicators in this document are not intended to be taught in isolation or separate from the content of the Curriculum Frameworks, consequently this document is designed as a map of TASS indicators for curriculum and assessment planners and is not a prominent feature of the EIC for daily instructional planning. The individual indicators from this document are the integrated focus of each week's instruction and are a prominent feature of the EIC. While not designed as an instructional planning tool, this document is an important part of professional development for users of the EIC.

MCPS Thinking and Academic Success Skills Framework Rationale and Research Base

The Montgomery County Public Schools (MCPS) Thinking and Academic Success Skills Framework identifies and defines critical and creative thinking skills as well as academic success skills that permeate instruction in all content areas of the MCPS Pre-K–5 Integrated Curriculum. This framework incorporates the research for the primary talent development model successfully implemented in MCPS elementary schools with the Program of Assessment, Diagnosis, and Instruction (PADI). Primary talent development nurtures, identifies, and documents the skills necessary for success in accelerated and enriched instruction. Developing critical and creative thinking skills reveals the strengths and talents of more students both in daily classroom instruction and during the system process for Student Instructional Program Planning and Implementation. Providing students with explicit instruction in critical and creative thinking skills and opportunities to develop academic success skills while learning content, helps students understand how they learn. Making students aware of how they learn prepares them for lifelong learning.

Critical thinking involves being objective and open-minded while thinking carefully about what to do or what to believe, based on evidence and reason. When thinking critically students apply accepted principles. Critical thinking is not a generic set of skills or processes to be developed independent of content and context. Rather if it is to take central place in the curriculum, critical thinking must be seen as a *way of teaching the curriculum.* (Case, R. 2005). Critical thinking consists of seeing both sides of an issue, being open to new evidence that disconfirms your ideas, making reasoned judgments, demanding claims be backed by evidence, deducting and inferring conclusions from available facts, and solving problems. (Willingham, D. 2007) Critical thinking involves examining possibilities carefully, fairly, and constructively—focusing thoughts and actions by analyzing, synthesizing, and evaluating possibilities, refining and developing the most promising possibilities, ranking or prioritizing options and choosing certain options. (Treffinger, D. 2008)

Creative thinking involves putting facts, concepts, and principles together and demonstrating a novel way of seeing or doing things. During creative thinking students may disregard accepted principles. Creativity involves fluency, flexibility, elaboration and originality of thought. Creative thinking is essential for success in a competitive global environment; contributes to meaning, integrity and satisfaction in career and life; helps people become effective, autonomous and competent in dealing with many people and situations; and, it increases the range of situations, goals and challenges with which people can deal successfully. (Treffinger, D. 2008) Critical thinking without creativity leads to mere skepticism and negativity, and creativity without critical thought leads to mere novelty. When students develop their rational, critical capacities, they develop their creative capacities and when students develop their creative capacities, they develop their critical capacities. (Paul, R. and Elder, L., 2006)

Research on academic success skills has shown that when students are able to defer short-term gratification for long-term gain, when they collaborate with others, and when they take responsibility for their learning, they are able to function at a higher level. In classrooms in which students have opportunities to develop academic success skills and learn how they learn, all students are able to achieve at higher levels. Academic success depends on student attitudes and behaviors that enable them to reach their full potential in academic settings. These attitudes and behaviors include collaboration, intellectual risk taking, effort/ motivation/persistence, and metacognition. In classrooms where opportunities to develop academic success skills exist, everyone is able to accomplish more. Academic success skills promote behaviors that lead to deeper learning and greater achievement. (Partnership for 21st Century Skills, 2007)

This framework identifies the specific critical and creative thinking skills as well as academic success skills that are at the core of instruction for the MCPS Pre-K–5 Integrated Curriculum. In the integrated curriculum, students learn critical and creative thinking skills and develop academic success skills while they are learning content skills and processes. The thinking skills and academic success skills are the threads that weave the content skills and processes together. Making connections among concepts increases the possibility that students will be able to recall those concepts and transfer them to new learning. When students are aware of how they are learning, they are better prepared to learn in any new situation. With the wealth of information that is becoming increasingly available in the 21st century, it is essential that all students not only learn academic content but have the opportunity to know how to keep learning.

MCPS Thinking and Academic Success Skills Glossary

Academic Success Skills:
Academic success involves possessing attitudes and behaviors that enable students to reach their full potential in academic settings. Some examples of academic success skills are:

- Collaboration— Working effectively and respectfully to reach a group goal.
- Effort/Motivation/Persistence—Working diligently and applying effective strategies to achieve a goal or solve a problem; continuing in the face of obstacles and competing pressures.
- Intellectual Risk Taking—Accepting uncertainty or challenging the norm to reach a goal.
- Metacognition—Knowing and being aware of one's own thinking and having the ability to monitor and evaluate one's own thinking.

Creative Thinking Skills:
Creative thinking involves putting facts, concepts, and principles together in new ways and demonstrating a novel way of seeing or doing things. During creative thinking students may disregard accepted principles. Some examples of creative thinking skills are:

- Elaboration—Adding details that expand, enrich, or embellish.
- Flexibility—Being open and responsive to new and diverse ideas and strategies and moving freely among them.
- Fluency—Generating multiple responses to a problem or an idea.
- Originality—Creating ideas and solutions that are novel or unique to the individual, group, or situation.

Critical Thinking Skills:
Critical thinking involves being objective and open-minded while thinking carefully about what to do or what to believe, based on evidence and reason. During critical thinking students deeply question and apply accepted principles. Some examples of critical thinking skills are:

- Analysis—Breaking down a whole into parts that may not be immediately obvious and examining the parts so that the structure of the whole is understood.
- Evaluation—Weighing evidence, examining claims, and questioning facts to make judgments based upon criteria.
- Synthesis—Putting parts together to build understanding of a whole concept or to form a new or unique whole.

MCPS Thinking and Academic Success Skills Indicators

Critical Thinking Skills	Creative Thinking Skills	Academic Success Skills
1.0 Analysis 1.1 Identify and describe attributes. 1.2 Compare by identifying similarities and differences. 1.3 Sort and classify into categories. 1.4 Identify and describe patterns and the relationships within patterns. 1.5 Identify relationships among parts of a whole. 1.6 Infer and explain meaning to make sense of parts.	**4.0 Elaboration** 4.1 Enhance thoughts, ideas, processes, or products by adding details. 4.2 Demonstrate thoughts, ideas, processes, or products by using different forms of communication. 4.3 Combine or add to thoughts, ideas, processes, or products.	**8.0 Collaboration** 8.1 Demonstrate active listening and empathy in communicating with group members. 8.2 Solicit and respect multiple and diverse perspectives to broaden and deepen understanding. 8.3 Demonstrate teamwork by working productively with others. 8.4 Define and identify steps to reach a group goal. 8.5 Identify and analyze options for sharing responsibility to reach a group goal. 8.6 Demonstrate the characteristics of both a group leader and a group member. 8.7 Support group decisions with criteria.
2.0 Evaluation 2.1 Rank options based on criteria. 2.2 Select and test possible alternatives. 2.3 Justify a choice or solution based on criteria using evidence and reason. 2.4 Question facts and claims. 2.5 Determine the credibility of information and claims. 2.6 Determine how to use conflicting information.	**5.0 Flexibility** 5.1 Maintain openness by considering new and diverse ideas and multiple perspectives. 5.2 Select and use multiple resources. 5.3 Move freely between new information and prior knowledge. 5.4 Adapt and use information and multiple strategies to seek clarity. 5.5 Demonstrate adaptability by changing ideas, questions, resources, or strategies when presented with evidence.	**9.0 Effort/Motivation/Persistence** 9.1 Demonstrate strategies to achieve a goal or solve a problem. 9.2 Self-assess effectiveness of strategies and redirect efforts to achieve a goal or obtain a solution to a problem. 9.3 Identify an achievable, yet challenging goal. 9.4 Identify and describe the outcome of a goal. 9.5 Identify the components of goal-setting. 9.6 Develop and demonstrate a sequenced program of action to achieve a goal or solve a problem.
3.0 Synthesis 3.1 Organize parts to form a new or unique whole. 3.2 Integrate ideas, information, and theories to invent or devise a solution. 3.3 Formulate generalizations by examining parts and putting them together.	**6.0 Fluency** 6.1 Generate many ideas. 6.2 Represent and describe ideas or solutions in a variety of ways. 6.3 Generate ideas using multiple strategies. 6.4 Ask questions in a variety of ways.	**10.0 Intellectual Risk Taking** 10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks. 10.3 Challenge self and others to advance skill level.
	7.0 Originality 7.1 Create a new idea, process, or product using multiple and varied formats. 7.2 Plan and formulate a new, unique, or alternative solution to a problem or situation. 7.3 Transform an idea, process, or product into a new form.	**11.0 Metacognition** 11.1 Examine one's own thoughts and ideas to identify background knowledge. 11.2 Explain thinking processes. 11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.

MCPS Thinking and Academic Success Skills Focus by Grade Level

		Kindergarten				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	MP	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Critical Thinking	Analysis	•				•					•			•											
	Synthesis			•				•					•					•					•		
	Evaluation														•					•					•
Creative Thinking	Fluency		•				•			•															
	Flexibility											•									•	•			
	Originality				•				•							•									
	Elaboration																•		•					•	
Academic Success	Collaboration	•				•				•				•				•				•			
	Effort/Motivation/ Persistence			•				•					•				•		•						•
	Intellectual Risk Taking		•				•					•				•					•			•	
	Metacognition				•				•		•				•					•			•		

• Focus area of skill integration for each marking period. All skills can be taught at any time during the school year.

MCPS Thinking and Academic Success Skills Scope and Sequence of Indicators

Students should be able to demonstrate the skills identified at each grade level as well as those identified at previous grade levels.

		Kindergarten	Grade 1	Grade 2
Critical Thinking	1.0 Analysis	1.1 Identify and describe attributes. 1.2 Compare by identifying similarities and differences. 1.3 Sort and classify into categories. 1.4 Identify and describe patterns and the relationships within patterns.	1.1 Identify and describe attributes. 1.2 Compare by identifying similarities and differences. 1.3 Sort and classify into categories. 1.4 Identify and describe patterns and the relationships within patterns. 1.5 Identify relationships among parts of a whole.	1.3 Sort and classify into categories. 1.4 Identify and describe patterns and the relationships within patterns. 1.5 Identify relationships among parts of a whole. 1.6 Infer and explain meaning to make sense of parts.
	2.0 Evaluation			
	3.0 Synthesis	3.1 Organize parts to form a new or unique whole.	3.1 Organize parts to form a new or unique whole. 3.2 Integrate ideas, information, and theories to invent or devise a solution.	3.1 Organize parts to form a new or unique whole. 3.2 Integrate ideas, information, and theories to invent or devise a solution.
Creative Thinking	4.0 Elaboration			
	5.0 Flexibility			5.1 Maintain openness by considering new and diverse ideas and multiple perspectives. 5.2 Select and use multiple resources. 5.3 Move freely between new information and prior knowledge.
	6.0 Fluency	6.1 Generate many ideas. 6.2 Represent and describe ideas or solutions in a variety of ways.	6.3 Generate ideas using multiple strategies. 6.4 Ask questions in a variety of ways.	6.3 Generate ideas using multiple strategies. 6.4 Ask questions in a variety of ways.
	7.0 Originality	7.1 Create a new idea, process, or product using multiple and varied formats. 7.2 Plan and formulate a new, unique, or alternative solution to a problem or situation. 7.3 Transform an idea, process, or product into a new form.	7.1 Create a new idea, process, or product using multiple and varied formats. 7.2 Plan and formulate a new, unique, or alternative solution to a problem or situation. 7.3 Transform an idea, process, or product into a new form.	

MCPS Thinking and Academic Success Skills Scope and Sequence of Indicators

		Kindergarten	Grade 1	Grade 2
Academic Success	8.0 Collaboration	8.1 Demonstrate active listening and empathy in communicating with group members. 8.2 Solicit and respect multiple and diverse perspectives to broaden and deepen understanding. 8.3 Demonstrate teamwork by working productively with others.	8.1 Demonstrate active listening and empathy in communicating with group members. 8.2 Solicit and respect multiple and diverse perspectives to broaden and deepen understanding. 8.3 Demonstrate teamwork by working productively with others.	8.3 Demonstrate teamwork by working productively with others. 8.4 Define and identify steps to reach a group goal. 8.5 Identify and analyze options for sharing responsibility to reach a group goal. 8.6 Demonstrate the characteristics of both a group leader and a group member.
	9.0 Effort/ Motivation/ Persistence	9.1 Demonstrate strategies to achieve a goal or solve a problem. 9.2 Self-assess effectiveness of strategies and redirect efforts to achieve a goal or obtain a solution to a problem.	9.1 Demonstrate strategies to achieve a goal or solve a problem. 9.2 Self-assess effectiveness of strategies and redirect efforts to achieve a goal or obtain a solution to a problem. 9.3 Identify an achievable, yet challenging goal. 9.4 Identify and describe the outcome of a goal.	9.1 Demonstrate strategies to achieve a goal or solve a problem. 9.2 Self-assess effectiveness of strategies and redirect efforts to achieve a goal or obtain a solution to a problem. 9.3 Identify an achievable, yet challenging goal. 9.4 Identify and describe the outcome of a goal.
	10.0 Intellectual Risk Taking	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks.	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks.	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks. 10.3 Challenge self and others to advance skill level.
	11.0 Metacognition	11.1 Examine one's own thoughts and ideas to identify background knowledge. 11.2 Explain thinking processes.	11.1 Examine one's own thoughts and ideas to identify background knowledge. 11.2 Explain thinking processes. 11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.	11.1 Examine one's own thoughts and ideas to identify background knowledge. 11.2 Explain thinking processes. 11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.

MCPS Thinking and Academic Success Skills Scope and Sequence of Indicators

Students should be able to demonstrate the skills identified at each grade level as well as those identified at previous grade levels.

		Grade 3	Grade 4	Grade 5
Critical Thinking	1.0 Analysis	1.4 Identify and describe patterns and the relationships within patterns. 1.5 Identify relationships among parts of a whole. 1.6 Infer and explain meaning to make sense of parts.		
	2.0 Evaluation	2.1 Rank options based on criteria. 2.2 Select and test possible alternatives. 2.3 Justify a choice or solution based on criteria using evidence and reason.	2.2 Select and test possible alternatives. 2.3 Justify a choice or solution based on criteria using evidence and reason. 2.4 Question facts and claims. 2.5 Determine the credibility of information and claims.	2.3 Justify a choice or solution based on criteria using evidence and reason. 2.4 Question facts and claims. 2.5 Determine the credibility of information and claims. 2.6 Determine how to use conflicting information.
	3.0 Synthesis		3.2 Integrate ideas, information, and theories to invent or devise a solution. 3.3 Formulate generalizations by examining parts and putting them together.	3.2 Integrate ideas, information, and theories to invent or devise a solution. 3.3 Formulate generalizations by examining parts and putting them together.
Creative Thinking	4.0 Elaboration	4.1 Enhance thoughts, ideas, processes, or products by adding details. 4.2 Demonstrate thoughts, ideas, processes, or products by using different forms of communication.	4.3 Combine or add to thoughts, ideas, processes, or products.	4.3 Combine or add to thoughts, ideas, processes, or products.
	5.0 Flexibility		5.2 Select and use multiple resources. 5.4 Adapt and use information and multiple strategies to seek clarity.	5.5 Demonstrate adaptability by changing ideas, questions, resources, or strategies when presented with evidence.
	6.0 Fluency			
	7.0 Originality	7.1 Create a new idea, process, or product using multiple and varied formats. 7.2 Plan and formulate a new, unique, or alternative solution to a problem or situation. 7.3 Transform an idea, process, or product into a new form.		

MCPS Thinking and Academic Success Skills Scope and Sequence of Indicators

		Grade 3	Grade 4	Grade 5
Academic Success	8.0 Collaboration	8.3 Demonstrate teamwork by working productively with others. 8.4 Define and identify steps to reach a group goal. 8.5 Identify and analyze options for sharing responsibility to reach a group goal. 8.6 Demonstrate the characteristics of both a group leader and a group member.	8.2 Solicit and respect multiple and diverse perspectives to broaden and deepen understanding. 8.5 Identify and analyze options for sharing responsibility to reach a group goal. 8.7 Support group decisions with criteria.	8.2 Solicit and respect multiple and diverse perspectives to broaden and deepen understanding. 8.5 Identify and analyze options for sharing responsibility to reach a group goal. 8.7 Support group decisions with criteria.
	9.0 Effort/ Motivation/Persistence	9.3 Identify an achievable, yet challenging goal. 9.4 Identify and describe the outcome of a goal. 9.5 Identify the components of goal-setting. 9.6 Develop and demonstrate a sequenced program of action to achieve a goal or solve a problem.	9.3 Identify an achievable, yet challenging goal. 9.4 Identify and describe the outcome of a goal. 9.5 Identify the components of goal-setting. 9.6 Develop and demonstrate a sequenced program of action to achieve a goal or solve a problem.	9.5 Identify the components of goal-setting. 9.6 Develop and demonstrate a sequenced program of action to achieve a goal or solve a problem.
	10.0 Intellectual Risk Taking	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks. 10.3 Challenge self and others to advance skill level.	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks. 10.3 Challenge self and others to advance skill level.	10.1 Adapt and make adjustments to meet challenges when seeking solutions. 10.2 Demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting novel tasks. 10.3 Challenge self and others to advance skill level.
	11.0 Metacognition	11.2 Explain thinking processes. 11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.	11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.	11.3 Self-monitor strategies to assess progress and apply new thinking. 11.4 Seek clarification and adapt strategies to attain learning task/outcome.

American Association of School Librarians. *Standards for the 21st-Century Learner in Action*. Chicago, 2009.

Case, R., Moving critical thinking to the main stage, *Education Canada,* 2005.

Partnership for 21st Century Skills, *The Intellectual and Policy Foundations of the 21st Century Skills Framework*, 2007.

Paul, R. and Elder, L., *Critical Thinking: The Nature of Critical and Creative Thought*, Journal of Developmental Education, Volume 30, Issue 2, Winter 2006.

Pink, D., *A Whole New Mind: Why Right-Brainers Will Rule the Future*, Penguin, New York, N.Y. 2006.

Saphier J., et. al., T*he Skillfull Teacher: Building Your Teaching Skills*, Research for Better Teaching, Inc., Acton, MA.

Seigler, R., *Children's thinking*, Englewood Cliffs, NJ: Prentice Hall, 1998.

Torrance, Paul, *Guiding Creative Talent, Rewarding Creative Behavior, The Search for Satori and Creativity, Gifted and Talented Children in the Regular Classroom, Multicultural Mentoring of the Gifted and Talented*.

Treffinger, D., Preparing creative and critical thinkers, *Educational Leadership*, Vol. 65, 2008.

Trilling, B and Fadel, C., 21st Century Skills—Learning for life in our times. Josse-Bass, San Francisco, CA, 2009.

Westwater, A. & Wolfe, P., *The brain-compatible curriculum*, Educational Leadership, 58, 3, 49-52, WilsonWeb, July 18, 2001.

Willingham, D., Critical thinking: Why is it so hard to teach? *American Educator,* 2007.

Pre-K–12 Visual Art Framework

(Original Approval: April 2006)

Goal

The goal of the Montgomery County Public Schools (MCPS) Pre-K–12 visual art program of studies is for students to develop the knowledge and skills essential to understanding that art

- is a powerful mode of communication, providing essential ways to discover, interpret, and make meaning of life experiences.
- plays a dynamic role in society by making connections to the past and to other cultures.
- is the investigation of materials and visual forms, the development of symbolic language, and the engagement with critical and aesthetic modes of thought and expression.
- is an integrated approach to creative expression and critical response that allows students to develop their own unique artistic thoughts and provides a solid grounding for making and appreciating art.

Enduring Understandings

Enduring Understandings are the thoughts and concepts that connect students and the world of art to larger ideas that affect all humankind. These are big ideas that transcend the boundaries of traditional disciplines and make connections between the student, art, and real life issues.

Students use the Enduring Understandings as a basis for exploration of their own thoughts, relationships, and imagination as they engage in self-expression, communication, and the creation of art.

Enduring Understandings for Pre-K–5 Visual Art

Environment

- **The environment affects the way people think, feel, behave, and live.**

Communication

- People communicate thoughts, feelings, and ideas using words, symbols, signs, and behaviors.

Communities

- **People live in communities that are identified by common personal, social, and organizational beliefs, values, or traditions.**

Human Issues

- **People use knowledge, skills, and creativity to fulfill needs and desires.**

Content

The MCPS visual art curriculum framework is aligned with the Maryland State Standards for Visual Art and the Maryland Voluntary State Curriculum (VSC). At each grade level, the framework defines what students must know about visual art, and what they must be able to

do with this knowledge to meet personal, academic goals. There are four content standards that are further defined by indicators and objectives. At the indicator and objective level, the content standard is narrowed to provide specific information about the learning that should occur at each grade level.

The four Content Standards identified by the state of Maryland are:

Standard I: Perceiving and Responding—Aesthetic Education

The student will demonstrate the ability to perceive, interpret, and respond to ideas, experiences, and the environment through visual art.

Standard II: Historical, Cultural, and Social Context

The student will demonstrate an understanding of visual art as a basic aspect of history and human experience.

Standard III: Creative Expression and Production

The student will demonstrate the ability to organize knowledge and ideas for expression in the production of art.

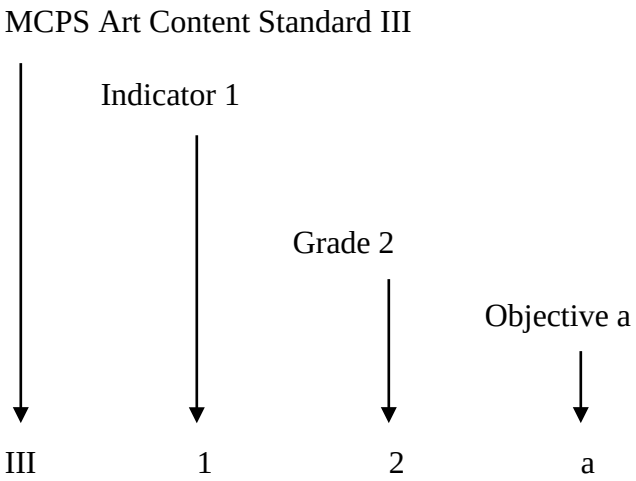
Standard IV: Aesthetics and Criticism

The student will demonstrate the ability to identify, analyze, and apply criteria for making visual aesthetic judgments.

For clarity and simplicity in referencing standards, items that appear in MCPS elementary school curriculum documents are numbered according to the following sequence:

Art Standard → Indicator → Grade Level → Objective

Example:



Instructional Approach

Instruction for visual art should engage the learner and reflect the complex nature of the discipline. This requires consistent, yet varied opportunities for students to be actively involved in the creative production and critical response in art. Art curriculum will promote instruction that

- values all learners and is differentiated for their strengths, interests, and learning styles.
- enables students to demonstrate appreciation and understanding of diverse individuals, groups, and cultures.
- is investigative and performance-based in nature.
- uses the elements of art and principles of design as the foundation for exploration of visual art concepts and processes.
- connects design concepts in the arts to mathematics, language arts, social studies, and science, and enriches the relationship between visual art and other curriculum areas.
- encourages creativity and expands aesthetic and intellectual awareness by using higher level thinking skills to identify problems, explore original solutions, and complete the problem-solving process.
- builds knowledge and understanding of art as an essential aspect of history and human experience communicates ideas, values, and beliefs of people in different times throughout history; and perpetuates the development of culturally literate students.
- challenges students to understand and express their own ideas, values, feelings, and beliefs through the production of art, using traditional media, processes, and new technology as vehicles for individual creative expression.

Pre-K–12 English Language Arts Framework

(Original Approval: July 2001)

Goal

The goal of the Pre-K–12 English Language Arts program is to create literate, thoughtful communicators, capable of controlling language effectively as they negotiate an increasingly complex and information-rich world. Students will refine specific skills and strategies in reading, writing, speaking, listening, and viewing and will use these skills and strategies widely as tools for learning and reflection. Exploring a variety of texts, students will understand and appreciate language and literature as catalysts for deep thought and emotion.

Enduring Understandings

- Language is a powerful tool for expressing ideas, beliefs, and feelings.
- Knowledge of language facilitates thought.
- Readers, listeners, and viewers continually develop and apply strategies to construct meaning from increasingly complex and challenging texts.
- Writers and speakers strategically use language to communicate for a variety of purposes.
- Individuals need advanced literacy skills to participate actively and successfully in today's demanding, information-based society.
- Literature reveals the complexities of the world and human experience.

Content

Guided by the Maryland English Language Arts Content Standards (2008) and the Common Core State Standards for English Language Arts (2010), the Pre-K–12 English Language Arts program focuses on the communication processes of reading, writing, speaking, listening, and viewing through the study of language and literature.

Each unit integrates the communication processes and contents. No one process (reading, writing, speaking, listening, and viewing) is taught in isolation; neither of the contents (literature and language) is taught in isolation. Rather, students learn the dynamic relationships among them as they study the significant role language plays in literature and in the craft of expressing oneself through the written and spoken word. Enduring Understandings and Essential Questions for each unit provide a larger purpose for learning targeted content. Specifically, each unit exposes students to the following aspects of the communication processes, literature, and language:

Reading and Listening—Effective readers and listeners use strategies before, during, and after reading or listening to construct and extend meaning according to the text and purpose. They access background knowledge, survey structure, predict, question, summarize, clarify, visualize, draw conclusions, validate perceptions, analyze, synthesize, and evaluate. In English Language Arts classes, students develop and apply these strategies to a variety of increasingly challenging and complex texts.

Viewing—Effective viewers approach visual texts in much the same way they approach written or spoken texts. In English Language Arts, students actively view visual texts by applying and refining strategies they use when reading and listening and learn new concepts specific to understanding visual media.

Writing and Speaking—Effective communicators are aware of the essential elements of powerful writing and speaking—ideas and development, organization, diction, syntax, voice, and language conventions. They use their knowledge of the nature, organization, and structure of language to improve as writers and speakers. Effective writers employ a recursive process that includes pre-writing, drafting, revising, editing, and publishing. In English Language Arts, students apply their understanding of language and the writing process to develop organized and coherent responses to literature, synthesize information, develop arguments for a variety of purposes, describe situations or events, and express their personal ideas.

Literature—Effective readers realize that universal human experiences often serve as sources of literary themes. Readers also understand that authors make conscious decisions to affect an audience. In English Language Arts, students read, listen to, and view traditional and contemporary works to examine how authors, speakers, and directors use language, literary elements, and genres to provide their audiences with new insights and perspectives.

Language—Effective communicators are aware of the rules that govern language, grammar, syntax, and organization, and they understand the power of word choice and semantics. In English Language Arts, students use their knowledge of language to improve as communicators and to analyze the textual decisions authors make to influence voice, tone, and meaning in literary works.

Instructional Approach

Designed to provide challenge for all learners, the Pre-K–12 English Language Arts curriculum offers a flexible program focused on developing strategies for active reading and clear writing. Instructional activities guide students to examine the techniques authors use to develop universal themes in various genres. Students build, refine, and apply skills in organization and clear use of language in recursive writing tasks throughout the year. The English Language Arts curriculum promotes instruction that

- integrates the communication processes and contents.
- is student centered and challenging for all learners.
- provides experiences for students to construct and produce their own meaning.
- encourages critical thinking and metacognition.
- places literature study in a social and personal context.
- includes ongoing assessment for the purpose of modifying instruction to ensure student success.
- promotes opportunities for teachers to provide frequent and immediate feedback to students.
- values all learners and is differentiated for their strengths, interests, and learning styles.
- nurtures appreciation and understanding of diverse individuals, groups, and cultures.
- offers students many opportunities to demonstrate and apply their learning in a variety of modes.
- includes a variety of instructional approaches and conceptual models, such as simulations, shared inquiry, seminars, research, and concept formation.

- uses flexible grouping practices and collaboration.
- provides frequent formal and informal writing opportunities, with attention to the writing process and portfolio assessment.
- incorporates grammar and vocabulary study in the context of writing and literature study.
- emphasizes and models critical thinking and problem solving.
- includes a wide variety of texts, both assigned and student selected, representing diverse cultures and a range of difficulty.
- provides opportunities to study speaking, listening, and viewing processes to enhance the study of text.
- offers frequent opportunities for close critical reading, analysis, and discussion.
- provides active and direct work with writing, using models, frequent feedback, and rubrics to give students opportunities to improve their work.
- incorporates and encourages the use of technology.
- develops strategic readers and writers.

Documents and Concepts Considered in this Framework

Armstong, Thomas. *The Multiple Intelligences of Reading and Writing: Making the Words Come Alive.* Alexandria, VA: Association for Supervision and Curriculum Development, 2003.

Beers, Kylene. *When Kids Can't Read, What Teachers Can Do: A Guide for Teachers, 6–12.* Portsmouth, NH: Heinemann, 2003.

Biancarosa, Gina, and Catherine E. Snow. *Reading Next—A Vision for Action and Research in Middle and High School Literacy: A Report from Carnegie Corporation of New York.* Washington, DC: Alliance for Excellent Education, 2004.

Committee on the Prevention of Reading Difficulties in Young Children. *Preventing Reading Difficulties in Young Children*. Eds. Catherine E. Snow, M. Susan Burns, and Peg Griffin. Washington, DC: National Academy Press, 1998.

Common Core State Standards for English Language Arts. Council of Chief State School Officers and the National Governor Association, 2010. http://www.corestandards.org/the-standards

Culham, Ruth. *6 +1 Traits of Writing: The Complete Guide Grades 3 and Up.* New York: Scholastic Inc, 2003.

Erickson, H. Lynn. *Stirring the Head, Heart, and Soul: Refining Curriculum and Instruction.* 2nd ed. Thousand Oaks, CA: Corwin Press, 2001.

Erickson, H. Lynn. *Concept-Based Curriculum and Instruction for the Thinking Classroom.* Thousand Oaks, CA: Corwin Press, 2007.

Fountas, Irene C., and Gay Su Pinnell. *Guided Reading: Good First Teaching for All Children.* Portsmouth, NH: Heinemann, 1996.

Fountas, Irene C., and Gay Su Pinnell. *Guided Readers and Writers Grades 3–6.* Portsmouth, NH: Heinemann, 2001.

Fountas, Irene C., and Gay Su Pinnell. *Matching Books to Readers Using Leveled Books in Guided Reading, K–3.* Portsmouth, NH: Heinemann, 1999.

Gallagher, Kelly. *Deeper Reading: Comprehending Challenging Texts, 4–12.* Portland, ME: Stenhouse Publishers, 2004.

Gallagher, Kelly. *Teaching Adolescent Writers.* Portland, ME: Stenhouse Publishers, 2006.

Graham, Steve, and Dolores Perin. *Writing Next—Effective Strategies to Improve Writing of Adolescents in Middle and High Schools: A Report to Carnegie Corporation of New York.* Washington, DC: Alliance for Excellent Education, 2007.

Harmon, William, and C. Hugh Holman. *A Handbook to Literature.* 8th ed. Upper Saddle River, NJ: Prentice Hall, 2000.

Maryland English Language Arts Content Standards. Baltimore, MD: Maryland State Department of Education, 2008. http://mdk12.org/instruction/curriculum/reading/index.html

Marzano, Robert J., Debra J. Pickering, and Jane E. Pollock. *Classroom Instruction that Works: Research-based Strategies for Increasing Student Achievement.* Alexandria, VA: Association for Supervision and Curriculum Development, 2001.

McCarrier, Andrea, Gay Su Pinnell, and Irene C. Fountas. *Interactive Writing: How Language and Literacy Come Together, K–2.* Portsmouth, NH: Heinemann, 1999.

National Commission on Writing for America's Families, Schools, and Colleges. *The Neglected "R": The Need for a Writing Revolution.* 2003.

National Commission on Writing for America's Families, Schools, and Colleges. *Writing and School Reform.* 2006.

National Academy of Education. Commission on Reading. *Becoming a Nation of Readers: The Report on the Commission on Reading.* Pittsburgh, PA: National Academy of Education, 1985.

National Reading Panel (U.S.). *Report of the National Reading Panel: Teaching Children to Read: An Evidence-based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction.* Washington, DC: National Institute of Child Health and Human Development, National Institutes of Health, 2000.

Noden, Harry R. *Image Grammar: Using Grammatical Structures to Teach Writing.* Portsmouth, NH: Heinemann, 1999.

Saphier, Jon, and Robert Gower. *The Skillful Teacher: Building Your Teaching Skills*. 5th ed. Acton, MA: Research for Better Teaching, Inc., 1997.

Spandel, Vicki. *Creating Writers Through 6–Trait Writing Assessment and Instruction.* 3rd ed. New York: Addison, Wesley, Longman, 2001.

Standards for the English Language Arts. Urbana, IL: National Council of Teachers of English; Newark, DE: International Reading Association, 1996.

Templeton, Shane. *Teaching the Integrated Language Arts.* 2nd ed. Boston: Houghton Mifflin, 1997.

Tomlinson, Carol Ann. *How to Differentiate Instruction in Mixed-Ability Classrooms.* 2nd ed. Alexandria, VA: Association for Supervision and Curriculum Development, 2001.

Tomlinson, Carol Ann, and Jay McTighe. *Integrating Differentiated Instruction + Understanding by Design: Connecting Content and Kids.* Alexandria, VA: Association for Supervision and Curriculum Development, 2006.

Van Tassel-Baska, Joyce, Dana T. Johnson, and Linda Neal Boyce, eds. *Developing Verbal Talent: Ideas and Strategies for Teachers of Elementary and Middle School Students*. Boston: Allyn and Bacon, 1996.

Weaver, Constance. *Teaching Grammar in Context.* Portsmouth, NH: Boynton/Cook Publishers, 1996.

Wiggins, Grant and Jay McTighe. *Understanding by Design.* Alexandria, VA: Association for Supervision and Curriculum Development, 1998.

Pre-K–12 General Music Framework

(Original Approval: April 2006)

Goal

The goal of the Montgomery County Public Schools (MCPS) pre-K–12 general music curriculum is for the student to develop the knowledge and skills essential to understanding that

- Creating, performing, and responding to music require specific knowledge and skills that may be acquired only through study and practice.
- Music, while a distinct art form, shares many principles and concepts with theatre, the visual arts, and dance.
- A thorough understanding of music requires knowledge drawn from numerous other disciplines ranging from anatomy to physics and computer science.
- Music is found in every culture, and musical ability is found in every individual.

Enduring Understandings

- Music is a unique form of communication in which sounds are organized to create unified and evocative compositions.
- Creating, performing, and responding to music require specific knowledge and skills that may be acquired only through study and practice.
- Music, while a distinct art form, shares many principles and concepts with theatre, the visual arts, and dance.
- A thorough understanding of music requires knowledge drawn from numerous other disciplines ranging from anatomy to physics and computer science.
- Music provides unique insights into the culture in which it originated.
- Music is found in every culture, and musical ability is found in every individual.

Content

The Grades 1 and 2 Instructional Guide is aligned with the knowledge and skills outlined in Maryland's Voluntary State Curriculum (VSC) for Music, Grades Pre-K-Grade 8 and the Montgomery County Public Schools Pre-K–8 Choral and General Music program. The General Music curriculum is a sequential, comprehensive curriculum based on knowledge and skills that all students may be expected to attain to prepare them for lives as participants in, as well as consumers of, musical culture.

Four outcomes and their respective expectancies and indicators represent a broad outline for K–12 music education in Maryland. Each outcome of the VSC for Music Grades K–8 embraces a different category of content and should be applied to all grade levels. They are:

Standard I: Perceiving, Performing and Responding: Aesthetic Education
The student will demonstrate the ability to perceive, perform, and respond to music.

Standard II: Historical, Cultural, and Social Context
The student will demonstrate an understanding of music as an essential aspect of history and human experience.

Standard III: Creative Expression and Production
The student will demonstrate the ability to organize musical ideas and sounds creatively.
Standard IV: Aesthetics and Criticism
The student will demonstrate the ability to make aesthetic judgments.

Content
The Grades 1 and 2 general music curriculum is organized into three instructional units aligned with the Voluntary State Curriculum outcomes: Music Literacy, Making Music and Music Connections.

Instructional Approach
The general music curriculum provides opportunities for both individual and group experiences in creating, performing and responding to music. These three processes constitute the key components of the instructional and assessment programs.

Creating music is the process of developing musical ideas through composition, arranging and improvising.

Performing skills include the use of the voice, instruments and other sound producing media.

Responding to music includes reading and writing music as well as listening to and describing expressive qualities of musical works, and understanding and using music vocabulary.

Pre-K–12 Health Education Curriculum Framework

(Original Approval: April 2006)

Goal

The goal of the Pre-k–12 comprehensive health education program is to provide students with accurate health information so that they can develop the skills necessary to make healthful decisions throughout their lives.

Enduring Understandings

- Health-behaviors are developed; accurate knowledge and sufficient motivation promote health-enhancing behaviors and skills.
- A health literate individual develops an understanding of and competence to use basic health information and services to improve or maintain personal health.
- Practical application of life skills such as communication, conflict resolution, decision-making, goal-setting, and stress management are key to the development of a healthful lifestyle.
- Identifying the risks and consequences associated with unsafe and unhealthy behaviors is essential to preventing injury and disease and promoting good health.
- Developing a healthful lifestyle includes the ability to access valid health information and health-promoting products and services in the home, school, and community.
- Taking personal responsibility for one's own health, while assisting others in addressing their health needs is a major step toward developing a healthy community.

Content

The health education curriculum framework is aligned with the Maryland State Department of Education Voluntary State Curriculum. The standards define what all students must know about health education and what they must be able to do with this knowledge to meet personal, academic, and societal needs.

The health education curriculum framework includes content in the following areas: mental health; tobacco, alcohol and other drugs; personal and consumer health; nutrition and fitness; safety, first aid and injury prevention; family life and human sexuality; and disease prevention and control. For health education to address student health needs effectively, teachers adjust instruction based on needs, interests, abilities, developmental levels, and cultural backgrounds of the students. The health education standards are:

Standard I: Mental and Emotional Health – Students will demonstrate the ability to use mental and emotional health knowledge, skills, and strategies to enhance one's self-concept and one's relationship with others.

Standard II: Alcohol, Tobacco, and Other Drugs – Students will demonstrate the ability to use drugs knowledge, decision-making skills, and health enhancing strategies to address, the non-use, use, and abuse of medications, alcohol, tobacco, and other drugs.

Standard III: Personal and Consumer Health – Students will demonstrate the ability to use consumer knowledge, skills, and strategies to develop sound personal health practices involving the use of health care products, services, and community resources.

Standard IV: family Life and Human Sexuality – Students will demonstrate the ability to use human development knowledge, social skills, and health enhancing strategies to promote positive relationships and health growth and development throughout the life cycle.

Standard V: Safety and Injury Prevention – Students will demonstrate the ability to apply prevention and intervention knowledge, skills, and processes to promote safe living in the home, school, and community.

Standard VI: Nutrition and Fitness – Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle.

Standard VII: Disease Prevention and Control – Students will demonstrate the ability to apply prevention and treatment knowledge, skills, and strategies to reduce susceptibility and manage disease.

Instructional Approach

Comprehensive health education encourages students to develop skills, attitudes, and behaviors that enable them to make responsible decisions and avoid health-related crises. This outcome is best accomplished through instruction that enables students to practice health-related skills and apply those skills to real life situations. Practical application of health knowledge is essential to help students prevent health problems and lead healthy lives.

Effective health education instruction engages students in the learning process. This requires consistent, yet varied opportunities for students to be actively involved in their learning. Students are expected to learn, practice, reflect upon, and adopt healthy behaviors as a result of classroom instruction. Health education emphasizes depth in understanding of knowledge, procedures, strategies, and concepts, rather than broad, superficial content coverage.

Health education is challenging and rigorous for all students, with an emphasis on developing critical thinking skills. Differentiated instruction recognizes student learning styles, strengths, and interest. A varied pace will make the curriculum accessible to all students. Flexible grouping allows all students the opportunity to work in homogeneous and heterogeneous groups and learn from multiple perspectives.

Assessment is an ongoing process that guides instruction, monitors student progress, and evaluates mastery of health education content and higher level thinking skills. Pre-, formative, and summative assessments provide opportunities for student, peer, and teacher evaluation and modification of instruction to ensure student success.

Documents and Concepts Considered in this Framework

Assessing Health Literacy: Assessment Framework. Soquel, CA: ToucanEd Publications, 1998.

Health Education A Maryland Curricular Framework. Baltimore, MD: Maryland State Department of Education, 1990.

Maryland Health Education Voluntary State Curriculum (Draft). Baltimore, MD: Maryland State Department of Education, 2004.

Maryland K–12 Health Education Learning Outcomes. Baltimore, MD: Maryland State Department of Education, 1997.

Marzano, Robert J., and Debra J. Pickering. *Dimensions of Learning*. 2nd ed. Alexandria, VA: Association for Supervision and Curriculum Development; Aurora, CO: Mid-continent Regional Educational Laboratory, 1997.

Montgomery County, MD Public Schools. Office of Instruction and Program Development. *Program of Studies: Health Education Elementary School, Grades pre-K–5*. Rockville, MD: Montgomery County Public Schools, 1994.

Montgomery County, MD Public Schools. Office of Instruction and Program Development. *Program of Studies: Health Education High School, Grades 9–12*. Rockville, MD: Montgomery County Public Schools, 1994.

Montgomery County, MD Public Schools. Office of Instruction and Program Development. *Program of Studies: Health Education Middle School, Grades 6–8*. Rockville, MD: Montgomery County Public Schools, 1994.

Montgomery County, MD Public Schools. Office of Instruction and Program Development. Department of Academic Programs. *State of the Art: Toward Ensuring Classroom Success for Every Student; A Handbook for Educators*. Rockville, MD: Montgomery County Public Schools, 1998.

National Health Education Standards: Achieving Health Literacy. Atlanta, GA: American Cancer Society, Inc., 1995.

Saphier, Jon, and Robert Gower. *The Skillful Teacher: Building Your Teaching Skills*. 5th ed. Acton, MA: Research for Better Teaching, 1997.

Wiggins, Grant, and Jay McTighe. *Understanding by Design.* Alexandria, VA: Association for Supervision and Curriculum Development, 1998.

Pre-K-12 InformationLiteracy Standards

(MSDE Adoption: 2010)

Goal
The goal of the Montgomery County Public Schools (MCPS) K-12 school library media instructional program is for students to become lifelong learners who are effective users of ideas and information (i.e., information literate). Mastering information literacy skills is essential for success both in school and throughout life. The pace of change in contemporary life requires an individual to recognize the need and accept responsibility for becoming a critical thinker and user of information.

Enduring Understanding:
Lifelong learning is built on a foundation of information literacy.

Essential Questions:
1. How does interacting with information lead to understanding and communicating ideas?
2. Why is access to and ethical use of information important in a democratic society?
3. How does literature reflect, examine, and influence human experience?

Content
The MCPS information literacy skills curriculum is aligned with the School Library Media State Curriculum Standards for School Library Media Programs. At each grade level, the curriculum identifies the information literacy skills students must know and be able to use as effective users of information and creators of new knowledge. There are six content standards that are further defined by performance indicators and objectives. The six Content Standards identified by the state of Maryland are:

Standard 1.0: Students will be able to follow an inquiry process to define a problem, formulate questions, and refine either or both to meet a personal and/or assigned information need.

Standard 2.0: Students will be able to follow an inquiry process to identify, locate, evaluate, and select resources and sources in a wide variety of formats to meet the information need in an ethical manner.

Standard 3.0: Students will be able to follow an inquiry process to find, generate, record, and organize data/information relevant to the information need in an ethical manner.

Standard 4.0: Students will be able to follow an inquiry process to interpret recorded data/information to create new understandings and knowledge related to the information need in an ethical manner.

Standard 5.0: Students will be able to follow an inquiry process to share findings/conclusions in an appropriate format to support written, oral, and multimedia information products and evaluate the product and the process in an ethical manner.

Standard 6.0: Students will be able to demonstrate an appreciation of literature and multimedia as a reflection of human experience and use the inquiry process for life-long learning.

Instructional Approach

Information literacy skills (i.e., locating, collecting, organizing, interpreting and sharing information) are most effectively learned in the context of subject area content. Effective collaboration between classroom teachers and school library media specialists to provide opportunities for information literacy skills instruction integrated into the content areas enhances the mastery of both information literacy skills and subject area by merging the development of information processing skills and strategies with the learning of subject area content. By integrating information literacy skills into the content areas, learning becomes more authentic and students become more engaged in the experience.

References:

American Association of School Librarians. (1998). Information power and information literacy standards. In *Information power: Building partnerships for learning* (p. vii) [Preface]. Chicago: American Library Association.

Association of Supervisors and Curriculum Developers. (2003). School libraries and their impact on student achievement. *ASCD Research Brief*, 1 (September 4), 18.

Harada, V. (2005). *Assessing learning: Librarians and teachers as partners*. Westport: Libraries Unlimited.

Kuhlthau, C. (2004). *Seeking meaning: A process approach to library and information services*. Westport: Libraries Unlimited.

Lance, K. C. (2004). Libraries and student achievement: The importance of school libraries for improving student test scores. *Threshold*, *1*(2), 8–9.

Montgomery County Public Schools (MCPS). (2004). *Information literacy: A shared responsibility*. Rockville, MD: Montgomery County Public Schools.

School Library Media Programs (Ed.). (2007). *The Information Literacy Guide: Making Every Connection Count PK-12*. Rockville: Montgomery County Public Schools.

Smith, Ester G. (2006). Student Learning through Wisconsin School Library Media Centers: Case Study Report. Madison, WI: Wisconsin Department of Public Instruction.

Pre-K–12 Mathematics Curriculum Framework

(Original Approval: July 2001)

Goal

The goal of the Montgomery County Public Schools Pre-K–12 mathematics program is for all students to achieve mathematical proficiency by developing both conceptual understanding and procedural fluency. The end result is the ability to think and reason mathematically and use mathematics to solve problems in authentic contexts.

Overarching Enduring Understandings

- Mathematics is the study of patterns and relationships.
- Mathematics is a language consisting of carefully defined terms and symbols.
- Mathematics is a tool used to solve problems in everyday life.
- Technology influences the mathematics that is taught and essential for our world.

The Content of Mathematics

Mathematics is a tool we use to understand and interpret our world. In our increasingly technological economy, those who can understand and apply mathematics have significantly enhanced opportunities to achieve success in continuing education and in life. The key to opening the door to these opportunities is a deep understanding of important mathematical concepts and procedures.

The integration of both mathematical concepts and processes is essential for meaningful understanding of mathematics. In the K–5 mathematics framework, the concepts of mathematics are organized under six strands: Counting and Cardinality, Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations—Fractions, Measurement and Data, and Geometry. These concepts are developed through eight mathematical practices:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

The mathematical content must be coherent and vertically articulated across the grades.

- In the elementary school years, students develop proficiency with number concepts and operations. For this to occur, students' experiences with the concept of number must be connected to mathematical concepts in geometry, algebraic

reasoning, and data analysis. At the same time, proficiency with mathematical facts and skills must be developed so that students are facile in their application of mathematics to solve problems.

- In the middle grades, students extend their mathematical proficiency through their work with rational numbers, proportional reasoning, measurement, and data analysis. They continue the development of a deep understanding of important algebraic and geometric concepts as well as mathematical ways of thinking. The expectation is for all students to be successful in the formal study of algebra and other academically challenging mathematics courses.
- In high school, all students pursue rigorous mathematics coursework that includes concepts such as functions, statistics, calculus, and discrete mathematics. Their understanding of mathematics enables students to see the connections among these mathematical concepts. Students must be able to visualize, represent, and analyze situations within the discipline as well as in other areas using mathematical terms.

Instructional Approach

Learning with understanding is essential for developing mathematical proficiency. According to the National Research Council's report *Adding It Up*, mathematical proficiency implies expertise in handling mathematical ideas. Students with mathematical proficiency understand basic concepts, are fluent in performing basic operations, reason clearly, formulate, represent, and solve mathematical problems, and maintain a positive outlook toward mathematics. (Kilpatrick, 2001) These components of mathematical proficiency are interwoven and interdependent. Instruction must help students develop increasingly efficient strategies for producing basic facts or single digit number combinations rapidly and accurately. This development leads to proficiency with basic facts. Students' proficiency with multi-digit numerical operations develops through understanding and reasoning, as well as meaningful practice. Students' understanding of operations serves as a foundation for reasoning about mathematics. The interdependence and connections among all mathematical strands fosters the development of mathematical proficiency. Students must be actively engaged in learning experiences that are designed to deepen, connect, and build on students' knowledge. Communication is an essential part of mathematics education. Instruction must provide students with opportunities for speaking, reading, writing, representing, and listening in mathematics classrooms so that they will learn to communicate mathematically. (Principles and Standards for School Mathematics, 2000) Technology is a tool for investigation and problem solving that enhances learning of mathematics. The use of technology should support the development of mathematical proficiency.

Mathematics teaching and learning must be challenging and rigorous with an emphasis on problem solving and reasoning. The curriculum makes a distinction between problem solving as a general process and the solution of specific word problems which demonstrate application of mathematical skills. A mathematical problem is something that you do not already know how to do. Problem solving is the process of transforming something that you do not know how to do into something familiar. (Steen, 1997) The mathematical problem solving situations that students encounter should include problems that require broader thinking than traditional word problems demand. (Burns, 1992) Word problems are a means for practicing computation. For example, a traditional word problem might ask: *How much change would you receive from a $10 bill if you spend $2.75?* The intent of this problem is to practice subtraction. Problem solving, on the other hand, should require students to develop a plan, execute the plan, and establish a purpose for learning to compute. For example, the previously cited word problem becomes a problem solving situation when it is restated as follows. *Your change from a $10 bill when you spend $2.75 is $7.25. The digits in your change are*

the same as the digits in what you spent. What other amounts could you spend so that your change has the same digits? (Burns, 1992) Problem solving must occur at every grade level and be the primary focus in mathematics instruction.

Differentiated instruction addresses student strengths, interests, and learning styles and should be paced to make the curriculum accessible to everyone. Flexible and varied grouping practices enhance the opportunity to receive expanded, intensive, enriched, and accelerated curriculum at all instructional levels as warranted by students' needs. A balance needs to be achieved so that all students have the opportunity to work in homogenous and heterogeneous groups. The curriculum is designed so that all students have the necessary skills and understanding for success in secondary mathematics courses.

Assessment is an ongoing process that guides instruction and monitors student progress to include mastery of mathematics content and higher level thinking skills. Pre-assessment, formative, and summative assessments provide for student, peer, and teacher evaluation. These types of assessment enable teachers to modify their instruction to support improved learning at each grade level for all students. Assessment should be focused on the development and achievement of mathematical proficiency. (Kilpatrick, 2001)

Documents and Concepts Considered in this framework:

Advanced Placement. The College Board/Educational Testing Service. http://www.ets.org/satets.html

Beaton, Albert E., Ina V.S. Mullis, Michael O. Martin, Eugenio J. Gonzalez, Dana L. Kelly, and Teresa A. Smith. Mathematics Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study (TIMSS). Chestnut Hill, MA: Center for the Study of Testing, Evaluation, and Educational Policy, Boston College, 1996. <http://www.timss.org>

Benchmarks for Science Literacy; Project 2061, American Association for the Advancement of Science. New York: Oxford UP, 1993.

Burns, Marilyn. About Teaching Mathematics, A K-8 Resource. Math Solutions Publications, 1992.

California Math Standards. < http://www.step.k12.ca.us/resources/MathStandards.html>.

Charles, Randall, and Joanne Lobato. Future Basics: Developing Numerical Power. Golden, CO: National Council of Supervisors of Mathematics, 1998.

Common Core State Standards, © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

Foundations for Success: The Final Report of the National Mathematics Advisory Panel, National Mathematics Advisory Panel. U.S. Department of Education: Washington, DC, 2008.

First in the World Consortium Mathematics and Science Standards. Naperville, IL: North Central Regional Educational Laboratory, 2001. <http://www.ncrel.org/re/fitwsp/.>

Keys to Math Success A Report from the Maryland Mathematics Commission. Baltimore, MD: Maryland State Department of Education, June 2001.

Kilpatrick, Jeremy, Jane Swafford, and Bradford Findell, eds. Adding It Up: Helping Children Learn Mathematics. Washington, DC: National Academy Press, 2001.

Mullis, Ina V.S. et al. Mathematics Benchmarking Report TIMSS 1999 – Eighth Grade. Boston, MA: International Study Center, Boston College, International Association for the Evaluation of Educational Achievement. April 2001 http://www.timss.org.

Marzano, Robert J., and Debra J. Pickering. Dimensions of Learning. 2nd ed. Alexandria, VA: Association for Supervision and Curriculum Development; Aurora, CO: Mid-continent Regional Educational Laboratory, 1997.

Mullis, Ina V.S., Michael O. Martin, Albert E. Beaton, Eugenio J. Gonzalez, Dana L. Kelly, and Teresa A Smith. Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS). Chestnut Hill, MA: Center for the Study of Testing, Evaluation, and Educational Policy, Boston College, 1997.

Primary Mathematics Syllabus. Singapore: Ministry of Education, Curriculum Planning and Development Division, 2000.

Principles and Standards for School Mathematics. Reston, VA: National Council of Teachers of Mathematics, 2000.

Scholastic Achievement Test. The College Board/Educational Testing Service. <http://www.ets.org/satets.html>.

Science for All Americans: A Project 2061 Report on Literacy Goals in Science, Mathematics, and Technology. Washington, DC: American Association for the Advancement of Science, 1989.

Steen, Lynn Arthur. Why Numbers Count Quantitative Literacy for Tomorrow's America. New York: College Entrance Examination Board, 1997.

Tomlinson, Carol Ann. The Differentiated Classroom: Responding to the Needs of All Learners. Alexandria, VA: Association for Supervision and Curriculum Development, 1999.

Wiggins, Grant, and Jay McTighe. Understanding by Design. Alexandria, VA: Association for Supervision and Curriculum Development, 1998.

Pre-K–12 Physical Education Curriculum Framework

(Original Approval: April 2006)

Goal

The goal of Pre-K–12 physical education is to help students become responsible citizens who are both physically educated and health literate. Each student will set and achieve personally challenging goals in physical activity, apply higher order thinking skills to human movement, and design personal movement and fitness plans. Students will be able to display the skills and practices of a physically active lifestyle, knowing the benefits of their choices to be involved in physical activity. They will be physically fit and have a mindset that values physical activity and its benefits in sustaining healthy lifestyles.

Enduring Understandings

- Physical education develops motor skills that allow for safe, successful, and satisfying participation in physical activities, sport, and dance.
- Physical education provides a wide range of developmentally appropriate activities.
- Physical education improves cardiovascular endurance, muscular strength, flexibility, muscular endurance, and body composition.
- Physical education reinforces knowledge learned across the curriculum and serves as a laboratory for application of content in science, math, reading, writing, and social studies.
- Physical education facilitates development of responsibility for personal health, safety, and fitness.
- Physical education promotes leadership, cooperation, and responsibility.
- Physical activity enhances emotional stability and resilience.
- Physical education instills a stronger sense of self-worth based on mastery of skills and concepts in physical activity.
- Physical education affords the opportunity to set and strive for personal, achievable goals.

Content

Specific content expectations direct students towards becoming physically educated and health literate. Content provides:

- instruction in a variety of motor skills that are designed to enhance the physical, mental, and social/emotional development of every student.
- fitness education and assessment to help children understand, improve, and/or maintain their physical well-being.
- development of cognitive concepts about motor skill and fitness.
- opportunities to improve emerging social and cooperative skill and gain a multicultural perspective.
- promotion of regular amounts of appropriate physical activity now and throughout life.

The concepts and processes of physical education are reflected in the Maryland State Standards:

Standard I: Exercise Physiology – The ability to use scientific principles to design and participate in a regular, moderate to vigorous physical activity program that contributes to personal health and enhances cognitive and physical performance in a variety of academic, recreational, and life tasks.

Standard II: Biomechanical Principles – The ability to use the principles of biomechanics to generate and control force to improve movement effectiveness and safety.

Standard III: Social Psychological Principles – The ability to use skills essential for developing self-efficacy, fostering a sense of community, and working effectively with others in physical activity settings.

Standard IV: Motor Learning Principles – The ability to use motor skill principles to learn and develop proficiency through frequent practice opportunities in which skills are repeatedly performed correctly in a variety of situations.

Standard V: Physical Activity – The ability to use the principles of exercise physiology, social psychology, and biomechanics to design and adhere to a regular, personalized, purposeful program of physical activity consistent with health, performance, and fitness goals in order to gain health and cognitive/academic benefits.

Standard VI: Skillfulness – The ability to enhance performance of a variety of physical skills by developing fundamental movement skills, creating original skill combinations, combining skill effectively in skills themes, and applying skills.

The Physical Education curriculum recognizes the developmental stages of students' physical and cognitive growth and therefore moves from general to specific (content) across grade levels.

Instructional Approach

Instruction for physical education engages the learner and reflects the complex nature of the discipline. This requires consistent, yet varied opportunities for students to be actively involved in physical education activities. The physical education curriculum promotes instruction that:

- values all learners as individuals and is differentiated for strengths, interests, and learning styles.
- emphasizes application of knowledge, procedures, strategies, tactics, and concepts.
- models critical thinking, problem solving, and guided discovery to enhance learning.
- promotes enjoyment of movement, sport, and dance.
- provides choices of movement experiences.
- uses ongoing authentic assessments (formative and summative) to guide instruction and monitor student progress.
- relies on rubrics, scoring tools, and data collection to clearly identify the expectations and desired outcomes.
- emphasizes flexible and varied groupings to encourage full inclusion and equitable opportunities.
- maximizes practice opportunities that are developmentally appropriate.

- incorporates and encourages the use of technology.
- provides real world, authentic, interdisciplinary experiences that make logical and meaningful connections.
- supports practice, learning, and the development of life-long habits through out-of-school experiences.

Documents and Concepts Considered in this Framework

American Education Publishing. *The Complete Book of Learning with Sports: Gr 1–2*, 1999.
American Education Publishing. *The Complete Book of Learning with Sports: Gr 3–4*, 1999.
Belka, D. *Teaching Children Games: Becoming a Master Teacher.* Champaign, IL: Human Kinetics, 1994.
Branner, T; *The Safe Exercise Handbook.* Dubuque, IA: Kendall/Hunt Publishing Company, 1989.
Buck, M. Ed.D., Assessing *Heart Rate in Physical Education***.** Reston, VA: National Association for Sport and Physical Education, 2002.
Buschner, C. *Teaching Children Movement Concepts and Skills: Becoming a Master Teacher.* Champaign, IL: Human Kinetics, 1994.
Carr, N., Series Editor. *Basic Stuff Series II: Basic Stuff in Action for Grades K-3; Grades 4–8; Grades 9–12.* Project of National Association of Sport and Physical Education. Reston, VA, 1987.
Carter, J. *Planet Health: An Interdisciplinary Curriculum for Teaching Middle School Nutrition and Physical Activity*. Champaign, IL: Human Kinetics, 2001.
Chen, A. & Shen, B. "A web of achieving in physical education: Goals, interest, outside-school activity and learning." *Learning and Individual Differences*, 14(3), 169–182, 2004.
Chen, A. & Zhu, W. **"**Personal and environmental influences on kindergarten children's interest in physical activity. "*Journal of Physical Activity and Health*, 2, 1-15, 2005.
Clements, R. *Multicultural Approach to Physical Education, A: Proven Strategies for Middle and High School.* Champaign, IL: Human Kinetics, 2002.
Clumpner, R. *Sport Progressions.* Champaign, IL: Human Kinetics, 2002.
Colvin, A., Markos, N., Walker, P. *Teaching the Nuts and Bolts of Physical Education: Building Basic Movement Skills.* Champaign, IL: Human Kinetics, 2000.
Cone, T., Werner, P., Cone, S., Woods, A. *Interdisciplinary Teaching Through Physical Education.* Champaign, IL: Human Kinetics, 1998.
Corbin, C. *Fitness for Life (5th Ed.).* Champaign, IL: Human Kinetics, 2004.
Cooper Institute for Aerobics Research. *Fitnessgram: Test Administration Manual.* Dallas, TX, 1994.
Dodds, P., Series Editor. *Basic Stuff Series I: Exercise Physiology; Kinesiology; Motor Learning; Psycho-Social Aspects of Physical Education; Humanities in Physical Education; Motor Development.* Project of National Association of Sport and Physical Education, Reston, VA, 1987.
Dougherty, Neil J. *Physical Activity and Sport for the Secondary School Student.* Reston, VA: National Association for Sport and Physical Education, 1993.
Doolittle, S., Fay T. *Authentic Assessment of Physical Activity in High School Students.* Reston, VA: National Association for Sport and Physical Education, 2002.
Ennis, C., Solmon, M., Satina, B., Loftus, S., Mensch, J., McCauley, T. "Creating a sense of family in urban schools using the 'Sport for Peace' Curriculum." *Research Quarterly for Exercise and Sport*, 70, 273-285, 1999.

Ennis, C. & McCauley, T. **"**Creating urban classroom communities worthy of trust." *Journal of Curriculum Studies*, 34, 149–172, 2002.

Gower, R., Saphier, J. *The Skillful Teacher: Building Your Teaching Skills (5th Edition).* Carlisle, MA: Research for Better Teaching, Inc., 1997.

Graham, G. *Teaching Children Physical Education: Becoming a Master Teacher.* Champaign, IL: Human Kinetics, 1992.

Graham, G., Holt/Hale, S., & Parker, M. *Children Moving (5th ed.).* Mountain View, CA: Mayfield, 2001.

Griffin, L., Mitchell, S., Oslin, J. *Teaching Sport Concepts and Skills: A Tactical Games Approach.* Champaign, IL: Human Kinetics, 1997.

Hannaford, C., *Smart Moves: Why Learning Is Not All in Your Head.* Arlington, VA, Great Ocean Publishers, 1995.

Hellison, D. *Teaching Responsibility Through Physical Activity, (2nd Ed.).* Champaign, IL: Human Kinetics, 2003.

Hichwa, J. *Right Fielders Are People Too: An Inclusive Approach to Teaching Middle School Physical Education.* Champaign, IL: Human Kinetics, 1998.

Hinson, C. *Fitness for Children*. Champaign, IL: Human Kinetics, 1994.

Holt/Hale, S. *On the Move: Lesson Plans for Children Moving.* Mountain View, CA: Mayfield, 2001.

Holt/Hale, S. *Assessing and Improving Fitness in Elementary Physical Education*. Reston, VA: National Association for Sport and Physical Education, 1999.

Hopper, C., Fisher, B., Munoz, K. *Health-Related Fitness for Grades 1 and 2.* Champaign, IL: Human Kinetics, 1997.

Hopper, C., Fisher, B., Munoz, K. *Health-Related Fitness for Grades 3 and 4.* Champaign, IL: Human Kinetics, 1997.

Hopper, C., Fisher, B., Munoz, K. *Health-Related Fitness for Grades 5 and 6.* Champaign, IL: Human Kinetics, 1997.

Hopple, C. *Teaching for Outcomes in Elementary Physical Education: A Guide for Curriculum and Assessment.* Champaign, IL: Human Kinetics, 1994.

Jewett, A., Bain, L., Ennis, C. *The Curriculum Process in Physical Education* (2nd Ed.). Madison, Wisconsin: Brown & Benchmark, 1995.

Kaardal, K. *Learning by Choice in Secondary Physical Education: Creating a Goal-Directed Program.* Champaign, IL: Human Kinetics, 2001.

Kelly, L. & Melograno, V. *Developing the Physical Education Curriculum: An Achievement-Based Approach*. Champaign, IL: Human Kinetics, 2004.

Kirk, D. *Senior Physical Education-2nd Edition: An Integrated Approach.* Champaign, IL: Human Kinetics, 2004.

Kirkpatrick, B. *Lessons From the Heart: Individualizing Physical Education with Heart Rate Monitors.* Champaign, IL: Human Kinetics, 1997.

Kogut, S. *Beyond Activities-Secondary Edition.* Reston, VA: National Association for Sport and Physical Education, 2002.

Kogut, S. *Beyond Activities: Learning Experiences to Support the National Physical Education Standards, Elementary.* Reston VA: National Association for Sport and Physical Education, 2003.

Lambert, L. *A Standards-Based Assessment of Student Learning.* Reston, VA: National Association for Sport and Physical Education, 1999.

Lieberman, L. *Strategies for Inclusion: A Handbook for Physical Educators.* Champaign, IL: Human Kinetics, 2002.

Locke, L. *Putting Research to Work in Elementary Physical Education: Conversations in the Gym.* Champaign, IL: Human Kinetics, 2003.

Logsdon, B., Alleman, M., Straits, S., Belka, D., Clark, D. *Physical Education Unit Plans for Preschool-Kindergarten: Learning Experiences in Games, Gymnastics, and Dance.* Champaign, IL: Human Kinetics, 1997.

Logsdon, B., Alleman, M., Straits, S., Belka, D., Clark, D. *Physical Education Unit Plans for Grades 1–2: Learning Experiences in Games, Gymnastics, and Dance.* Champaign, IL: Human Kinetics, 1997.
Logsdon, B., Alleman, M., Straits, S., Belka, D., Clark, D. *Physical Education Unit Plans for Grades 3–4: Learning Experiences in Games, Gymnastics, and Dance*, Champaign, IL: Human Kinetics, 1997.
Logsdon, B., Alleman, M., Straits, S., Belka, D., Clark, D. *Physical Education Unit Plans for Grades 5–6: Learning Experiences in Games, Gymnastics, and Dance*. Champaign, IL: Human Kinetics, 1997.
Lund, J. *Creating Rubrics for Physical Education***.** Reston, VA: National Association for Sport and Physical Education, 1999.
Mitchell, S., Oslin, J., and Griffin, L. *Sport Foundations for Elementary Physical Education: A Tactical Games Approach.* Champaign, IL: Human Kinetics, 2003.
McCracken, B. *It's Not Just Gym Anymore: Teaching Secondary School Students How to Be Active for Life.* Champaign, IL: Human Kinetics, 2001.
McGreevy-Nichols, S. *Building More Dances: Blueprints for Putting Movements Together*. Champaign, IL: Human Kinetics, 2001.
McGreevy, N. *Building Dances: A Guide to Putting Movements Together*. Champaign, IL: Human Kinetics, 1995.
Mitchell, S. & Oslin , J. *Assessment in Games Teaching***.** Reston, VA: National Association for Sport and Physical Education, 1999.
Mohnsen, B. *Assessing Concepts: Secondary Biomechanics*. Reston, VA: National Association for Sport and Physical Education, 2004.
Mohnsen, B. *Concepts and Principles of Physical Education: What Every Student Needs to Know***.** Champaign, IL: Human Kinetics, 2003.
Mohnsen, B. *Teaching Middle School Physical Education (2nd Ed.).* Champaign, IL: Human Kinetics, 1999.
National Association for Sport and Physical Education. *Moving into the Future: National Standards for Physical Education (2nd ed.).* Reston, VA: National Association for Sport and Physical Education, 2004.
O'Sullivan, M. & Hemminger, N., *Assessing Student Responsibility & Teamwork***.** Reston, VA: National Association for Sport and Physical Education, 2000.
Pangrazi, R. *Pedometer Power: 67 Lessons for K–12*. Champaign, IL: Human Kinetics, 2002.
Purcell, T. *Teaching Children Dance: Becoming a Master Teacher*. Champaign, IL: Human Kinetics, 1994.
Richmond, M. *The Physiology Storybook***.** JOIE Publications, 2000.
Sanders, S. *Designing Preschool Movement Programs.* Champaign, IL: Human Kinetics, 1992.
Schiemer, S. *Assessment Strategies for Elementary Physical Education.* Champaign, IL: Human Kinetics, 2000.
Siedentop, D. *Complete Guide to Sport Education***.** Champaign, IL: Human Kinetics, 2004.
Silverman, S. *Student Learning in Physical Education: Applying Research to Enhance Instruction (2nd Ed.)***.** Champaign, IL: Human Kinetics, 2003.
Smith, T. *Student-Centered Physical Education: Strategies for Developing Middle School Fitness and Skills*. Champaign, IL: Human Kinetics, 1998.
Spalding, A. *Kids on the Ball: Using Swiss Balls in a Complete Fitness Program* Champaign, IL: Human Kinetics, 1999.
Sutherland, C. *Physical Education Tips from the Trenches***.** Champaign, IL: Human Kinetics, 2001.
Swaim, D. *High School Healthy Hearts in the Zone: A Heart Rate Monitoring Program for Lifelong Fitness.* Champaign, IL: Human Kinetics, 2002.
Townsend, J., Mohr, D., Rairigh, R., Bulger, S., *Assessing Student Outcomes in Sport Education***.** Reston, VA: National Association for Sport and Physical Education, 2003.
Werner, P. *Teaching Children Gymnastics (2nd Ed.).* Champaign, IL: Human Kinetics, 2003.

Werner, P. *Teaching Children Gymnastics: Becoming a Master Teacher.* Champaign, IL: Human Kinetics, 1994.
Willis, C. *Dance Education Tips from the Trenches.* Champaign, IL: Human Kinetics, 2003.

Pre-K–12 Science, Technology and Engineering Framework

(Original Approval: July 2001)

Goal

The goal of Pre-K–12 science, technology and engineering programs in Montgomery County Public Schools (MCPS) is for all students to develop the knowledge and skills necessary to be literate in science, technology, and engineering in order to be informed citizens capable of thinking critically, solving problems, and communicating effectively. Although these content areas have always played a role in all facets of our lives, their importance continues to expand as our global society tackles even more challenging issues and seeks understanding to support solutions.

Enduring Understandings

- Patterns and relationships underlie the systems of the natural and physical world.
- Methods of inquiry involve asking testable questions, making critical observations, conducting controlled experiments, and forming summaries and analyses that often lead to further questions.
- The concepts of science and engineering are continually modified and expanded based upon new information.
- Science, technology, and engineering impact the course of history, society, culture, politics, economics, the environment, and individual lives.
- Technological literacy enables people to develop knowledge and abilities about human innovation in action, and enables people to assess innovations to make educated decisions on the use and application of technology.
- Engineering design involves problem solving, research, development, and innovation.
- Engineering design requires designing, testing, and redesigning.

Content

Science content blends the concepts and process skills of science. The concepts of science are classified under biology, chemistry, physics, earth/space, and environmental science. These concepts are taught through the process skills, which are classified under scientific inquiry, critical thinking, technology, applications and history of science. Scientific inquiry relies upon objectivity and an unbiased approach in making qualitative and quantitative observations, and forming conclusions. Scientific discoveries have positive and negative consequences, which require both an individual and collective sense of responsibility. The five major unifying themes of science are 1) systems, order, and organization; 2) evidence, models, and explanations; 3) constancy, change, and measurement; 4) evolution and equilibrium; and 5) form and function. By integrating these concepts/processes and making connections among other disciplines, science understandings are developed within a meaningful context.

Technology involves systems, which are groups of interrelated components designed to collectively achieve a desired goal or goals. No single component, device, or process can be considered without understanding its relationships to all other components, devices, and processes in the system. Concepts from science, mathematics, social studies, language arts, and other content areas are tools for understanding and managing technological systems. Technology includes problem solving by way of consideration of technological issues from different points of view, a variety of contexts, and technological impacts and consequences. Technological solutions often involve trade-offs, which necessitate accepting less of one quality in order to gain more of another.

Engineering involves taking scientific generalizations and technological systems and applying them to solve specific problems. Engineers work within design constraints like cost, materials and performance requirements toward a solution to an identified problem. Through a reflective design process, engineers design and redesign to arrive at a solution that fits within design constraints and addresses the identified issue.

Instructional Approach

At times Science, Technology and Engineering concepts need to be addressed discretely during instruction. However, an instructional approach that includes the purposeful integration of concepts from each of the disciplines provides a learning experience for students that support better conceptual development, critical thinking and understanding of big ideas. Key elements of instruction for Science, Technology and Engineering include:

- The teacher functions as facilitator or coach to nurture the students' growth to become independent learners and critical thinkers.
- A variety of teaching strategies are used to promote critical thinking, including hands-on investigations, demonstrations, direct instruction, current events discussions, visual presentations, design challenges, and cooperative learning.
- Relevancy to students and their lives is established to increase interest and support critical thinking.
- Time is provided to ensure that problem analysis, as well as solution strategies, are addressed.
- Time is provided for student-to-student discourse around the concepts being taught, the problems being solved, and the impacts of the proposed solutions. Students synthesize unifying principles from the course of study, make interdisciplinary connections, and apply these understandings to real world situations.
- Teachers engage students in effective techniques of reading, writing, and mathematics to extend their understandings of the content.
- Assessment is frequent, ongoing, and embedded in student learning experiences. Methods of evaluation incorporate rubrics and include pre-, formative, and summative assessment to evaluate teaching and learning.
- Teachers set high standards with challenging and rigorous expectations for all students and differentiate instruction and learning as appropriate.

Documents and Concepts Considered in this framework:

Advanced Placement. The College Board/Educational Testing Service, 2010. http://apcentral.collegeboard.com/apc/Controller.jpf

Advancing Excellence in Technological Literacy: Student Assessment, Professional Development, and Program Standards. Reston, Virginia: ITEA, 2003.

A Framework for Science Education: Preliminary Public Draft. National Research Council of the National Academies: Washington, D.C., 2010.

Benchmarks for Science Literacy. Project 2061, American Association for the Advancement of Science. New York: Oxford UP, 1993.

Foundations of Technology: A Standards-Based High School Course Guide. Reston, Virginia: ITEA-CATTS, 2003.

Inquiry and the National Science Education Standards: A Guide for Teaching and Learning. Eds. Steve Olson and Susan Loucks-Horsley. Washington, DC: National Academy Press, 2000.

Maryland Science Standards. Baltimore, MD: Maryland State Department of Education, 2005. http://www.mdk12.org/instruction/curriculum/science/index.html

Maryland Technology Education Standards. Baltimore, MD: Maryland State Department of Education, 2005. http://mdk12.org/instruction/curriculum/technology_education/vsc_technologyeducation_standards.pdf

Michaels, Sarah, Shouse Andrew W., and Schweingruber, Heidi A. *Ready, Set, Science: Putting Research to Work in K–8 Science Classrooms*. Washington, D.C.: National Research Council of the National Academies, 2008.

Standards for Technological Literacy: Content for the Study of Technology. Reston, Virginia: ITEA, 2000.

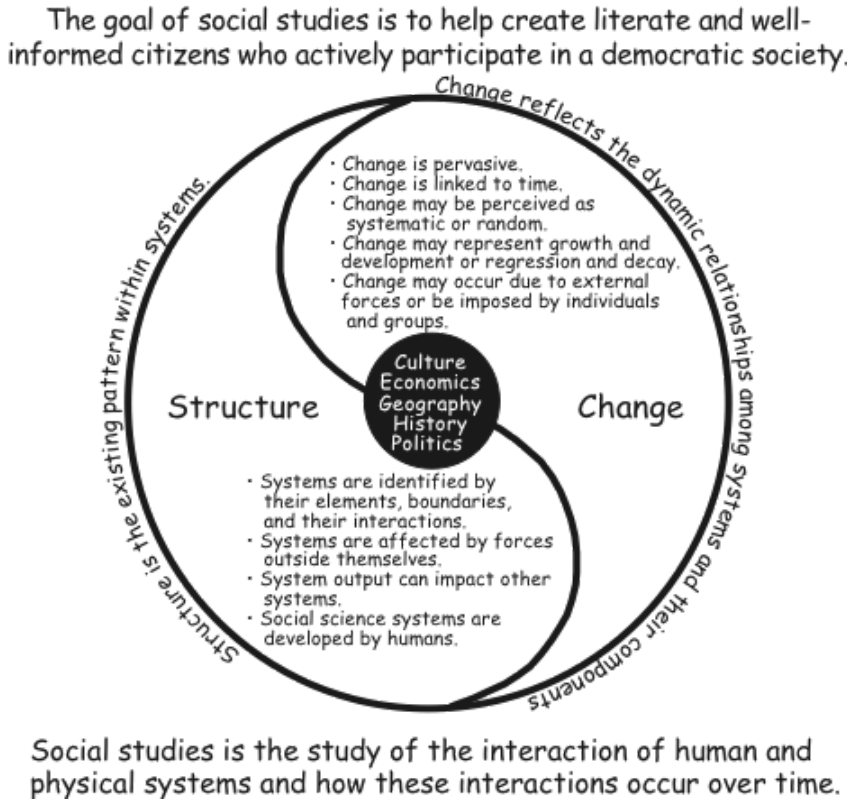
Pre-K–12 Social Studies Curriculum Framework

(Original Approval: July 2001)

Goal

The goal of Pre-K–12 social studies is to help students become effective citizens by:

- actively engaging in the processes, skills, knowledge, and concepts of the social sciences and history.
- developing a balanced understanding of systems of culture, economics, geography, and politics and the history of their development.
- applying concepts and knowledge of the past to problem-solving real world issues of the present.
- critically examining human interactions and evaluating their role as an effective citizen.
- communicating social studies concepts clearly in multiple formats and by putting theory into practice as a citizen.
- effectively using multiple sources of investigation including technology, primary and secondary source materials, the arts, films, and oral history.



Enduring Understandings

- Social studies is the study of the interaction of human and physical systems and how these interactions occur over time.
- The interdependent social studies systems of culture, economics, geography, and politics have two main components: their structure as they currently exist and the course of change they follow through history into the present.
- An integrated knowledge of the structure of social studies systems and the course of change from the past is helpful in making effective decisions in the present.
- Social studies is a dynamic process of acquisition, interpretation, and application of content knowledge.
- The content of social studies is continually evolving and expanding.
- All social studies disciplines have standards for investigation including the requirement of multiple sources, multiple viewpoints, and using controlled variables in research.

Content

Specific content expectations help direct students towards the understandings necessary for effective citizenship. However, social studies content is drawn from the diverse and expansive disciplines of the humanities and social sciences, making content selection difficult. Therefore, the following strands have been distilled from the numerous state and national documents to help focus content selection. The strands define the general content parameters of social studies and correlate with the specific backmapped indicators for each grade level and unit.

History – History is constructed knowledge of the past interactions among individuals, groups, and societies and the way these interactions are perceived. Individual, group, and societal decisions are made within the context of history.

Economics – Economic systems include how people organize for production, distribution, and consumption in the context of allocation of scarce resources in an interdependent world. Economic systems impact current and historic decisions of individuals, groups, and societies.

Political Systems – Political systems are the interactions of groups and individuals as they define the structures of power, influence authority, and government. Political systems have developed as a means for societal decision making.

Geography – Geographical systems are the interactions and distributions of physical elements and humans on the earth's surface. Geographical systems impact the current and historic nature of individuals, groups, and societies and their decisions.

People of the Nation and World (Cultural Systems) – Cultural systems, the integrated beliefs and behaviors of a society, are determined by the interactions of learned behaviors of people. Cultural systems have a direct impact on economic, geographic, political, and historical developments.

Social Studies Skills – Constructing understanding includes the interactions of: information gathering, critical thinking, and problem solving that lead to responsible decision making and the understanding of new and complex ideas. Student learning involves the systematic processing of previously constructed understandings.

Content focus moves from general to specific in the transition from the elementary years to high school. Specific high school electives may not "fit" into a strand definition, but are encompassed in the broader social studies framework.

Instructional Approach

Instruction for social studies should engage the learner and reflect the complex nature of the discipline. This requires consistent, yet varied opportunities for students to be actively involved in social studies. Social studies curriculum will promote instruction that:

- values all learners and is differentiated for their strengths, interests, and learning styles.
- enables students to demonstrate appreciation and understanding of diverse individuals, groups, and cultures.
- is investigative in nature and steeped in the disciplinary requirements of the social sciences and humanities.

- emphasizes depth in understanding of knowledge, procedures, strategies, and concepts, rather than broad, superficial content coverage.
- includes at least one problem-based research unit per grade level.
- develops concepts, skills, and processes in economics, geography, political systems, and culture in a recursive manner to build proficiency in each area.
- includes planned explicit instruction and application of the skills necessary for success including reading, writing, listening, thinking, communicating, and using appropriate technology.
- is monitored through ongoing assessment, including pre-assessments, formative assessments, and summative assessments in all units for the purpose of modifying instruction to ensure student success.
- organizes the study of history around concepts from all social studies disciplines.
- begins with learners' frame of reference to establish understanding, but quickly moves out to a larger idea.

Documents and concepts given consideration in this framework: Maryland Social Studies Content Standards (5/19/00), Maryland Learner Outcomes, national standards for each social studies discipline as reproduced in *Content Knowledge* by Kendall and Marzano, The California Social Science and History Standards, Maryland Core Learning Goals For Social Studies, Maryland Core Learning Goals: Skills For Success, the work of Dr. Joyce VanTassell-Baska of the College of William and Mary, *Understanding By Design* (McTighe&Wiggins), *Concept-Based Curriculum and Instruction* (L. Erickson), *1995 ASCD Yearbook* (ASCD), the work of the Elementary Social Studies Advisory Committee 1995–1998, MCPS Revised English/RLA Curriculum, MSPAP Exemplar Format, current World Studies 6–8 Curriculum, current K–5 Elementary Social Studies Curriculum, HSA Sample Items, current MCPS high school *Program of Studies*, *State of the Art*, MCPS, and *The Skillful Teacher*(Saphier and Gower)

Art	Transform ideas into visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Generate a variety of responses to artwork using the elements of art and principles of design. Create artwork using appropriate processes and materials.
General Music	Perform alone and in an ensemble: explore steady beat and rhythm patterns, and demonstrate and describe different ways to use the voice. Represent musical ideas with pictures. Identify musical contrasts and repeating sections. Perform movements to demonstrate different meters and singing games.
Health Education	Identify and describe strategies to promote lifelong wellness. Identify and describe strategies to stay safe.
Information Literacy	Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need. Sort and classify recorded information to create a product responding to personal or content information need. Generate ideas about relationships within fiction and nonfiction literature and real life.
Mathematics	Represent, order, and compare whole numbers or objects to solve problems, decompose numbers (less than 20), model joining and separating situations, and fluently add and subtract (within 5). Describe and compare attributes of two- and three-dimensional shapes in different sizes and orientations, compose simple shapes to form larger shapes, and apply spatial reasoning to describe relative position.
Physical Education	Demonstrate sequential application of movement cues to control body and equipment in space. Classify and demonstrate levels, pathways, and relationships to meet the challenges of the activity. Compare activities that promote fitness and their affect on the heart and lungs. Identify and demonstrate behaviors that promote cooperation, respect, and responsibility within a movement setting.
Reading Language Arts	Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension. Read emergent-reader literary texts with purpose and understanding. Read emergent-reader informational texts with purpose and understanding. Write opinions, informative/explanatory text, and narratives by experimenting with beginning writing processes and traits. Listen and speak effectively to share thoughts, ideas, and grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Describe and compare how plants and animals grow and survive through a life cycle. Classify plants and animals based on external features and explain how external features are used to survive in an environment. Identify, describe and compare adaptations of plants and animals in an environment. Identify and describe attributes of weather conditions using senses and tools to collect observational data. Identify and describe weather patterns over time and weather's impact on human's daily activities.
Social Studies	Identify and describe roles, rights, and responsibilities fulfilled by contributing members of societies. Identify and describe people, symbols, and practices associated with the United States of America. Identify, sort, and classify characteristics of people to determine how people meet similar needs. Identify and organize geographic characteristics to tell one place from another and describe how people change or adapt to the environment. Describe how goods are made and acquired. Compare daily life and objects of today and long ago.

Art	Transform personal thoughts and feelings into visual compositions. Identify, describe, represent, and compare living things and objects in visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Generate a variety of responses to artwork using the elements of art and principles of design. Create artwork using appropriate processes and materials.
General Music	Perform alone and in an ensemble: steady beat, patterns, and sing with upper, lower, and middle registers. Improvise sounds to enhance a story or song, and create a simple composition and notate with icons. Read and notate simple rhythm and pitch patterns. Identify and describe same and different sections, musical contrasts, classroom instruments, and styles in music; self-monitor performances. Perform movements to demonstrate steady beat, musical cues, and meter.
Health Education	Sort and classify strategies to stay safe. Integrate strategies to improve health and to promote lifelong wellness.
Information Literacy	Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need. Sort and classify recorded information to create a product responding to personal or content information need. Generate ideas about relationships within fiction and nonfiction literature and real life.
Mathematics	Select and apply strategies for addition and subtraction, including basic facts, to solve problems. Integrate concepts of grouping, ordering, and comparing in tens and ones to develop understanding of whole number relationships. Demonstrate strategies and explain thinking about the linear measurement process and telling time. Identify and describe attributes of two- and three-dimensional shapes, and compose and decompose shapes to build understanding of part-whole relationships.
Physical Education	Demonstrate sequential application of movement cues to control body and equipment in space. Adapt body positions and shapes through the application of directions, levels, and relationships to meet the challenges of the activity. Identify and describe how exercise affects organs of the body and overall health and wellness. Identify rules that provide safe movement of people and equipment. Identify and demonstrate goal setting, planning, and practice.
Reading Language Arts	Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend prose and poetry of appropriately complex for grade 1 strategically and independently. Read and comprehend informational texts appropriately complex for grade 1 strategically and independently. Write opinions, informative/explanatory text, and narratives with guidance and support using writing processes and traits. Listen and speak effectively to understand and communicate thoughts, ideas, and grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Compare and describe observable features of plants and animals and identify the relationship between observable features and basic needs for growth and survival. Describe and compare properties of natural and human-made materials and identify how human activities affect the environment. Compare and describe how objects move and identify causes for the movement. Identify and describe the effect magnets have on objects. Identify sources and uses of electricity in daily life.
Social Studies	Integrate ideas and information about relationships among rules, rights, and responsibilities to make effective decisions. Identify and describe people, symbols, and practices important to democratic principles associated with the United States of America. Compare similarities and differences in ways that people of different cultural backgrounds fulfill needs and wants and contribute to society. Identify and describe how goods and services are made, distributed, and acquired. Integrate ideas and information about geographic characteristics to identify how people modify and adapt to the environment. Sort and classify events, people, and objects as belonging to the past or present.

Art	Transform personal observations, memories, and imaginations into visual compositions. Identify, describe, and represent living things, objects, places, and events in visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Select, evaluate, and use multiple elements of art and principles of design to respond to artwork. Create artwork using appropriate processes and materials.
General Music	Perform alone and in an ensemble: bordun, and sing with correct posture and intonation within an octave range. Improvise a musical answer to a question, and create a rhythmic composition and an arrangement. Read and notate rhythm and pitch patterns and musical symbols on a five-line staff. Identify and describe orchestral families, multiple musical contrasts, meter, and patriotic songs; self-monitor performances. Perform movements to demonstrate meter, steady beat, and movement sequences.
Health Education	Identify factors influencing decisions and describe strategies to stay safe. Integrate nutrition and physical activity information to promote personal health and well-being.
Information Literacy	Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and sources to select best match for personal or content or information need. Integrate, record, sort, information from multiple sources in an ethical manner. Generate ideas about relationships within fiction and nonfiction literature and real life.
Mathematics	Demonstrate mathematical proficiency with addition and subtraction of whole numbers, including basic facts (sums to 20), to solve problems. Identify and describe place value patterns and relationships to solve problems. Integrate strategies and use appropriate tools to solve measurement problems involving length, time, and money. Describe and draw two- and three-dimensional shapes, and decompose two-dimensional shapes to build understanding of fractional relationships.
Physical Education	Demonstrate sequential application of movement cues to control body and equipment through different directions and pathways, and in relation to people to meet the challenges of the activity. Explain how and why body systems adapt to exercise and good nutrition for heart health. Identify the impact and justify the importance of rules on the movement setting. Demonstrate goal setting, planning, persistence, and effective practice.
Reading Language Arts	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range. Read and comprehend informational text in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range. Write opinions, informative/explanatory text, and narratives with greater independence using writing processes and traits. Listen and speak effectively to produce thoughts and ideas, and engage in discussions about grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Identify, describe and compare a variety of organisms and their life cycles, and explain the relationships between the growth and survival of living things to a habitat. Identify and describe natural features found on Earth and compare properties of Earth materials. Identify and describe properties of and changes in celestial objects to explain patterns that occur over time. Identify and explain the properties of materials and the relationships between the parts and the whole.
Social Studies	Identify and describe relationships among the fulfillment of rights and responsibilities and the development of democratic ideas and skills. Consider new and diverse ideas and multiple perspectives to infer and explain how people of different cultures meet needs. Integrate ideas and information about geographic characteristics to classify places and regions and describe how and why people modify and adapt to the environment. Identify and evaluate economic choices about production and distribution of goods. Organize events on timelines to identify and describe relationships.

Art	Transform personal observations, memories, and imaginations into visual compositions. Identify, describe, represent and/or symbolize living things, objects, places, ideas, and events in visual compositions. Create new visual compositions using the elements of art and principles of design. Select and appraise criteria to evaluate/critique and respond to artwork. Select and adapt materials and processes in the creation of artwork.
General Music	Perform alone and in an ensemble: ostinato and sing two-part rounds with relaxed tone and head voice. Improvise an answer to a melodic question, and create, arrange, and compose an ostinato. Read to perform a melody using absolute pitches and notate musical patterns. Identify and describe musical forms, spirituals and their purpose, meter signatures, and multiple contrasts including articulation; evaluate performances. Perform movements to demonstrate conducting meter in two, traditional folk dances, and to communicate meaning.
Health Education	Justify healthy decisions and practices promoting lifelong wellness. Formulate a personal safety plan.
Information Literacy	Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model. Select and appraise multiple sources of information and make adjustments to meet challenges of personal or content information need. Justify recorded information for relevance and completeness and transform recorded information in an ethical manner to create a new product responding to personal or content information need. Demonstrate intellectual freedom by selecting and using fiction and non-fiction literature, digital, and multimedia.
Mathematics	Develop, demonstrate, and justify efficient strategies for multiplication and division, including multiplication facts (products to 81), and solve problems involving the four operations. Select and demonstrate multiple representations of fractions and equivalent fractions, and compare fractions by reasoning about their size. Apply strategies to solve measurement problems, including area and perimeter. Describe, compare, and analyze properties of two-dimensional shapes.
Physical Education	Demonstrate application of movement skills to send, receive, and dribble equipment through different levels and pathways. Demonstrate rhythmic movement that combines formation, tempo, sequence, and performance of locomotor skills. Identify relationships among the components of the FITT Formula and health-related fitness components, including methods for monitoring heart rate to determine appropriate levels of aerobic activity. Create rules collaboratively to promote responsibility for self and others. Develop a plan to achieve a desired goal.
Reading Language Arts	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature at the high end of the grades 2–3 text complexity band strategically and independently. Read and comprehend informational text at the high end of the grades 2–3 text complexity band strategically and independently. Write increasingly complex opinions, informative/explanatory text, and narratives using writing processes and traits. Listen and speak effectively to initiate and engage in discussions about grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Identify and explain interactions and relationships between living things and the natural environment. Identify and describe Earth's natural resources and infer how they impact human decisions. Infer and explain through investigations how physical processes can affect an object's properties. Explain and justify based on investigations how a force is required to change an object's motion. Identify and describe relationships between heat energy and objects.
Social Studies	Infer and explain meaning of democratic principles and practices associated with being a responsible citizen within the United States. Identify and describe relationships among people, decision-making, and events that lead to the development of supportive communities. Identify relationships among the production, distribution, and consumption of goods and services. Infer and explain characteristics of different cultures. Compare places and regions using geographic characteristics.

Art	Represent point of view, mood, meaning, thoughts, and feelings through visual compositions. Identify, compare, and represent different times and cultures in visual compositions. Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions. Integrate and justify critique criteria to evaluate and respond to artwork. Select and adapt materials and processes in the creation of artwork.
General Music	Perform alone and in an ensemble: rhythmic and melodic ostinati, and sing with variations of dynamics and tempi using breath management. Improvise a complimentary melody and create, notate, and arrange a melodic composition for classroom instruments. Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural rhythm using rhythmic dictation. Identify and analyze phrases, modes, and music from North American cultures; evaluate performances. Perform movements to demonstrate traditional folk dances, conduct with meter in three and four, and demonstrate musical characteristics.
Health Education	Determine how to prevent as well as respond to emergency and non-emergency situations. Select and appraise well-being components, strategies, and resources that influence development of personal wellness plans.
Information Literacy	Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model. Justify appropriate format for recording and organizing information from multiple sources. Determine how to act on recorded information gathered from multiple sources, and transform recorded information in an ethical manner to create a new product responding to personal or content information need. Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.
Mathematics	Integrate ideas about place value, patterns, and properties to demonstrate fluency with whole number operations (addition, subtraction, and multiplication), and develop understanding of multi-digit whole number division, to solve problems. Integrate ideas about whole number operations, place value, and fraction equivalence to develop understandings about decimal notation for fractions, and solve problems involving addition and subtraction of fractions (like denominators) and multiplication of fractions by whole numbers. Classify two-dimensional figures by properties of lines and angles, and solve problems involving symmetry and angle measure.
Physical Education	Demonstrate and combine movement skills to react to the position of moving and stationary people and objects to perform a variety of manipulative skills in dynamic, game-like settings. Demonstrate a rhythmic movement that integrates formation, tempo, sequence, and performance of locomotor and non-locomotor skills. Identify, calculate, and monitor heart rate to determine appropriate levels of aerobic activity. Combine and apply health-related fitness components into the FITT Formula to identify a challenging and achievable personal physical activity goal. Create and justify rules collaboratively to promote responsibility for self and others.
Reading Language Arts	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range. Read and comprehend informational text in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range. Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences using processes and traits. Listen and speak effectively when analyzing grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Formulate generalizations about how and why organisms are able to survive in particular environments. Integrate information and ideas regarding interactions of plants and animals, basic needs for survival and the environment to create an ecosystem. Determine and critique how human behaviors and decisions influence the environment. Formulate generalizations about processes that continually change the Earth's surface by examining weather, rock formation and fossils. Formulate generalizations about matter through investigations to explain structures, changes, and conservation of matter.
Social Studies	Select, evaluate, and use information to describe roles and responsibilities of individuals, groups, and government in Maryland and the United States of America. Formulate generalizations about how interactions between peoples and/or the environment influenced life within different Native American societies. Infer and explain goals, and accomplishments, and impacts of North American explorers. Select, evaluate, and use information to describe early settlements in North America. Formulate generalizations about how interactions between peoples and/or the environment influenced life within colonial societies.

Art	Represent point of view, mood, meaning, thoughts, and feelings through visual compositions. Identify, compare, and represent different times and places in visual compositions. Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions. Integrate and justify critique criteria to evaluate and respond to artwork. Select and adapt materials and processes in the creation of artwork.
General Music	Perform alone and in an ensemble: chordal accompaniments and sing partner songs with correct posture, head voice, clear vowels, and clear diction. Improvise a simple melody over a 12-bar blues chord progression and create, notate, and arrange a melodic composition for classroom instruments. Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural melody using melodic dictation. Identify and analyze musical form and instruments; compare and evaluate performances. Perform movement to demonstrate traditional folk dances, compound meter, and to communicate meaning.
Health Education	Identify and describe strategies to stay safe. Identify, describe, and organize benefits of behaviors and strategies that promote lifelong wellness.
Information Literacy	Formulate and refine researchable questions based on personal or content information need and availability of resources. Determine how to ethically act on recorded information gathered from multiple sources and critique recorded information from multiple sources to verify reliability and validity. Integrate recorded information and self-monitor strategies to assess progress and apply new thinking to create a new product for specific audience. Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.
Mathematics	Integrate the components of mathematical proficiency with whole number operations and applications to build fluency with addition and subtraction of fractions and develop understanding of multiplication and division of fractions. Combine concepts about relationships among whole number operations, fractions, and decimals to develop and apply strategies for multiplication and division with fractions and decimals. Combine concepts about relationships among whole number operations to develop mathematical proficiency of division with multi-digit whole numbers. Select appropriate units, strategies, and tools to develop understanding of and solve problems with concepts of volume. Classify two-dimensional figures in a hierarchy; analyze the relationship between two numerical patterns and represent the relationship on the coordinate plane.
Physical Education	Demonstrate and combine movement skills to react to the position of moving and stationary people and objects in dynamic, game-like settings. Select and combine locomotor skills, non-locomotor skills, and relationships with others in a creative movement sequence. Combine and apply health-related fitness components into the FITT Formula to develop a personal fitness plan and adapt personal goals based on achievement. Create and justify rules collaboratively to promote responsibility for self and others.
Reading Language Arts	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature at the high end of the grades 4-5 text complexity band strategically and independently. Read and comprehend informational text at the high end of the grades 4-5 text complexity band strategically and independently. Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences using processes and traits. Listen and speak effectively when evaluating grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.
Science and Engineering	Formulate generalizations that living things are made of cells by identifying and describing evidence of different types of cells in organisms. Examine likenesses between parents and offspring to formulate generalizations about inherited and learned characteristics. Determine through investigation properties of light and objects in the universe, including movements, locations and positions to infer cause and effects of celestial patterns. Formulate generalizations about the relationships between forms of energy, forces and measurable changes in motion. Select, test and provide evidence of forces acting on objects including electricity and magnetism.
Social Studies	Formulate generalizations about the role and influence of individuals, groups, and events leading to the onset of and during the Revolutionary War. Formulate generalizations about roles and perspectives of individuals and groups which shaped events leading to and during the Constitutional Convention. Infer and explain the significance of principles and organizational structures found in governing documents. Infer and explain how geographic characteristics influenced settlement patterns in Maryland and the United States. Formulate generalizations about interactions between decisions made by individuals and governments and wants.

Content Overview – Art—Approved 2006

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Transform ideas into visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Generate a variety of responses to artwork using the elements of art and principles of design. Create artwork using appropriate processes and materials.	Transform personal thoughts and feelings into visual compositions. Identify, describe, represent, and compare living things and objects in visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Generate a variety of responses to artwork using the elements of art and principles of design. Create artwork using appropriate processes and materials.	Transform personal observations, memories, and imaginations into visual compositions. Identify, describe, and represent living things, objects, places, and events in visual compositions. Identify, select, and organize the elements of art and principles of design to create visual compositions. Select, evaluate, and use multiple elements of art and principles of design to respond to artwork. Create artwork using appropriate processes and materials.	Transform personal observations, memories, and imaginations into visual compositions. Identify, describe, represent and/or symbolize living things, objects, places, ideas, and events in visual compositions. Create new visual compositions using the elements of art and principles of design. Select and appraise criteria to evaluate/critique and respond to artwork. Select and adapt materials and processes in the creation of artwork.	Represent point of view, mood, meaning, thoughts, and feelings through visual compositions. Identify, compare, and represent different times and cultures in visual compositions. Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions. Integrate and justify critique criteria to evaluate and respond to artwork. Select and adapt materials and processes in the creation of artwork.	Represent point of view, mood, meaning, thoughts, and feelings through visual compositions. Identify, compare, and represent different times and places in visual compositions. Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions. Integrate and justify critique criteria to evaluate and respond to artwork. Select and adapt materials and processes in the creation of artwork.

Content Overview – General Music—Approved 2006

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Perform alone and in an ensemble: explore steady beat and rhythm patterns, and demonstrate and describe different ways to use the voice. Represent musical ideas with pictures. Identify musical contrasts and repeating sections. Perform movements to demonstrate different meters and singing games.	Perform alone and in an ensemble: steady beat, patterns, and sing with upper, lower, and middle registers. Improvise sounds to enhance a story or song, and create a simple composition and notate with icons. Read and notate simple rhythm and pitch patterns. Identify and describe same and different sections, musical contrasts, classroom instruments, and styles in music; self-monitor performances. Perform movements to demonstrate steady beat, musical cues, and meter.	Perform alone and in an ensemble: bordun, and sing with correct posture and intonation within an octave range. Improvise a musical answer to a question, and create a rhythmic composition and an arrangement. Read and notate rhythm and pitch patterns and musical symbols on a five-line staff. Identify and describe orchestral families, multiple musical contrasts, meter, and patriotic songs; self-monitor performances. Perform movements to demonstrate meter, steady beat, and movement sequences.	Perform alone and in an ensemble: ostinato and sing two-part rounds with relaxed tone and head voice. Improvise an answer to a melodic question, and create, arrange, and compose an ostinato. Read to perform a melody using absolute pitches and notate musical patterns. Identify and describe musical forms, spirituals and their purpose, meter signatures, and multiple contrasts including articulation; evaluate performances. Perform movements to demonstrate conducting meter in two, traditional folk dances, and to communicate meaning.	Perform alone and in an ensemble: rhythmic and melodic ostinati, and sing three-part rounds and partner songs. Improvise a complimentary melody and create, notate, and arrange a melodic composition for classroom instruments. Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural rhythm using rhythmic dictation. Identify and analyze phrases, modes, and music from North American cultures; evaluate performances. Perform movements to demonstrate traditional folk dances, conduct with meter in three and four, and demonstrate musical characteristics.	Perform alone and in an ensemble: chordal accompaniments and sing partner songs with correct posture, head voice, clear vowels, and clear diction. Improvise a simple melody over a 12-bar blues chord progression and create, notate, and arrange a melodic composition for classroom instruments. Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural melody using melodic dictation. Identify and analyze musical form and instruments; compare and evaluate performances. Perform movement to demonstrate traditional folk dances, compound meter, and to communicate meaning.

Content Overview – Health Education—Approved 2006

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Identify and describe strategies to promote lifelong wellness. Identify and describe strategies to stay safe.	Sort and classify strategies to stay safe. Integrate strategies to improve health and to promote lifelong wellness.	Identify factors influencing decisions and describe strategies to stay safe. Integrate nutrition and physical activity information to promote personal health and well-being.	Justify healthy decisions and practices promoting lifelong wellness. Formulate a personal safety plan.	Determine how to prevent as well as respond to emergency and non-emergency situations. Select and appraise well-being components, strategies, and resources that influence development of personal wellness plans.	Identify and describe strategies to stay safe. Identify, describe, and organize benefits of behaviors and strategies that promote lifelong wellness.

Content Overview – Information Literacy—MSDE

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need. Sort and classify recorded information to create a product responding to personal or content information need. Generate ideas about relationships within fiction and nonfiction literature and real life.	Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need. Sort and classify recorded information to create a product responding to personal or content information need. Generate ideas about relationships within fiction and nonfiction literature and real life.	Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions to guide personal or content information need. Identify and describe attributes of fiction and nonfiction resources and sources to select best match for personal or content or information need. Integrate, record, sort, information from multiple sources in an ethical manner to create a product responding to personal or content information need. Generate ideas about relationships within fiction and nonfiction literature and real life.	Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model. Select and appraise multiple sources of information and make adjustments to meet challenges of personal or content information need. Justify recorded information for relevance and completeness and transform recorded information in an ethical manner to create a new product responding to personal or content information need. Demonstrate intellectual freedom by selecting and using fiction and non-fiction literature, digital, and multimedia.	Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model. Justify appropriate format for recording and organizing information from multiple sources. Determine how to act on recorded information gathered from multiple sources, and transform recorded information in an ethical manner to create a new product responding to personal or content information need. Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.	Formulate and refine researchable questions based on personal or content information need and availability of resources. Determine how to ethically act on recorded information gathered from multiple sources and critique recorded information from multiple sources to verify reliability and validity. Integrate recorded information and self-monitor strategies to assess progress and apply new thinking to create a new product for specific audience. Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.

Content Overview – Mathematics—Common Core Standards

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Represent, order, and compare whole numbers or objects to solve problems, decompose numbers (less than 20), model joining and separating situations, and fluently add and subtract (within 5). Describe and compare attributes of two- and three-dimensional shapes in different sizes and orientations, compose simple shapes to form larger shapes, and apply spatial reasoning to describe relative position.	Select and apply strategies for addition and subtraction, including basic facts, to solve problems. Integrate concepts of grouping, ordering, and comparing in tens and ones to develop understanding of whole number relationships. Demonstrate strategies and explain thinking about the linear measurement process and telling time. Identify and describe attributes of two- and three-dimensional shapes, and compose and decompose shapes to build understanding of part-whole relationships.	Demonstrate mathematical proficiency with addition and subtraction of whole numbers, including basic facts (sums to 20), to solve problems. Identify and describe place value patterns and relationships to solve problems. Integrate strategies and use appropriate tools to solve measurement problems involving length, time, and money. Describe and draw two- and three-dimensional shapes, and decompose two-dimensional shapes to build understanding of fractional relationships.	Develop, demonstrate, and justify efficient strategies for multiplication and division, including multiplication facts (products to 81), and solve problems involving the four operations. Select and demonstrate multiple representations of fractions and equivalent fractions, and compare fractions by reasoning about their size. Apply strategies to solve measurement problems, including area and perimeter. Describe, compare, and analyze properties of two-dimensional shapes. .	Integrate ideas about place value, patterns, and properties to demonstrate fluency with whole number operations (addition, subtraction, and multiplication), and develop understanding of multi-digit whole number division, to solve problems. Integrate ideas about whole number operations, place value, and fraction equivalence to develop understandings about decimal notation for fractions, and solve problems involving addition and subtraction of fractions (like denominators) and multiplication of fractions by whole numbers. Classify two-dimensional figures by properties of lines and angles, and solve problems involving symmetry and angle measure.	Integrate the components of mathematical proficiency with whole number operations and applications to build fluency with addition and subtraction of fractions and develop understanding of multiplication and division of fractions. Combine concepts about relationships among whole number operations, fractions, and decimals to develop and apply strategies for multiplication and division with fractions and decimals. Combine concepts about relationships among whole number operations to develop mathematical proficiency of division with multi-digit whole numbers. Select appropriate units, strategies, and tools to develop understanding of and solve problems with concepts of volume. Classify two-dimensional figures in a hierarchy; analyze the relationship between two numerical patterns and represent the relationship on the coordinate plane.

Content Overview – Physical Education—Approved 2006

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Demonstrate sequential application of movement cues to control body and equipment in space. Classify and demonstrate levels, pathways, and relationships to meet the challenges of the activity. Compare activities that promote fitness and their affect on the heart and lungs. Identify and demonstrate behaviors that promote cooperation, respect, and responsibility within a movement setting.	Demonstrate sequential application of movement cues to control body and equipment in space. Adapt body positions and shapes through the application of directions, levels, and relationships to meet the challenges of the activity. Identify and describe how exercise affects organs of the body and overall health and wellness. Identify rules that provide safe movement of people and equipment. Identify and demonstrate goal setting, planning, and practice.	Demonstrate sequential application of movement cues to control body and equipment through different directions and pathways, and in relation to people to meet the challenges of the activity. Explain how and why body systems adapt to exercise and good nutrition for heart health. Identify the impact and justify the importance of rules on the movement setting. Demonstrate goal setting, planning, persistence, and effective practice.	Demonstrate application of movement skills to send, receive, and dribble equipment through different levels and pathways. Demonstrate rhythmic movement that combines formation, tempo, sequence, and performance of locomotor skills. Identify relationships among the components of the FITT Formula and health-related fitness components, including methods for monitoring heart rate to determine appropriate levels of aerobic activity. Create rules collaboratively to promote responsibility for self and others. Develop a plan to achieve a desired goal.	Demonstrate and combine movement skills to react to the position of moving and stationary people and objects to perform a variety of manipulative skills in dynamic, game-like settings. Demonstrate a rhythmic movement that integrates formation, tempo, sequence, and performance of locomotor and non-locomotor skills. Identify, calculate, and monitor heart rate to determine appropriate levels of aerobic activity. Combine and apply health-related fitness components into the FITT Formula to identify a challenging and achievable personal physical activity goal. Create and justify rules collaboratively to promote responsibility for self and others.	Demonstrate and combine movement skills to react to the position of moving and stationary people and objects in dynamic, game-like settings. Select and combine locomotor skills, non-locomotor skills, and relationships with others in a creative movement sequence. Combine and apply health-related fitness components into the FITT Formula to develop a personal fitness plan and adapt personal goals based on achievement. Create and justify rules collaboratively to promote responsibility for self and others.

Content Overview – Reading Language Arts—Common Core Standards

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension. Read emergent-reader literary texts with purpose and understanding. Read emergent-reader informational texts with purpose and understanding. Write opinions, informative/explanatory text, and narratives by experimenting with beginning writing processes and traits. Listen and speak effectively to share thoughts, ideas, and grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.	Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend prose and poetry of appropriately complex for grade 1 strategically and independently. Read and comprehend informational texts appropriately complex for grade 1 strategically and independently. . Write opinions, informative/explanatory text, and narratives with guidance and support using writing processes and traits. Listen and speak effectively to understand and communicate thoughts, ideas, and grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range. Read and comprehend informational text in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range. Write opinions, informative/explanatory text, and narratives with greater independence using writing processes and traits. Listen and speak effectively to produce thoughts and ideas, and engage in discussions about grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature at the high end of the grades 2–3 text complexity band strategically and independently. Read and comprehend informational text at the high end of the grades 2–3 text complexity band strategically and independently. Write increasingly complex opinions, informative/explanatory text, and narratives using writing processes and traits. Listen and speak effectively to initiate and engage in discussions about grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range. Read and comprehend informational text in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range. . Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences using processes and traits. Listen and speak effectively when analyzing grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.	Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension. Read and comprehend literature at the high end of the grades 4-5 text complexity band strategically and independently. Read and comprehend informational text at the high end of the grades 4-5 text complexity band strategically and independently. Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences using processes and traits. Listen and speak effectively when evaluating grade-level appropriate topics and texts. Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

Content Overview – Science and Engineering—Approved 2001

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Describe and compare how plants and animals grow and survive through a life cycle. Classify plants and animals based on external features and explain how external features are used to survive in an environment. Identify, describe and compare adaptations of plants and animals in an environment. Identify and describe attributes of weather conditions using senses and tools to collect observational data. Identify and describe weather patterns over time and weather's impact on human's daily activities.	Compare and describe observable features of plants and animals and identify the relationship between observable features and basic needs for growth and survival. Describe and compare properties of natural and human-made materials and identify how human activities affect the environment. Compare and describe how objects move and identify causes for the movement. Identify and describe the effect magnets have on objects. Identify sources and uses of electricity in daily life.	Identify, describe and compare a variety of organisms and their life cycles, and explain the relationships between the growth and survival of living things to a habitat. Identify and describe natural features found on Earth and compare properties of Earth materials. Identify and describe properties of and changes in celestial objects to explain patterns that occur over time. Identify and explain the properties of materials and the relationships between the parts and the whole.	Identify and explain interactions and relationships between living things and the natural environment. Identify and describe Earth's natural resources and infer how they impact human decisions. Infer and explain through investigations how physical processes can affect an object's properties. Explain and justify based on investigations how a force is required to change an object's motion. Identify and describe relationships between heat energy and objects.	Formulate generalizations about how and why organisms are able to survive in particular environments. Integrate information and ideas regarding interactions of plants and animals, basic needs for survival and the environment to create an ecosystem. Determine and critique how human behaviors and decisions influence the environment. Formulate generalizations about processes that continually change the Earth's surface by examining weather, rock formation and fossils. Formulate generalizations about matter through investigations to explain structures, changes, and conservation of matter.	Formulate generalizations that living things are made of cells by identifying and describing evidence of different types of cells in organisms. Examine likenesses between parents and offspring to formulate generalizations about inherited and learned characteristics. Determine through investigation properties of light and objects in the universe, including movements, locations and positions to infer cause and effects of celestial patterns. Formulate generalizations about the relationships between forms of energy, forces and measurable changes in motion. Select, test and provide evidence of forces acting on objects including electricity and magnetism.

Content Overview – Social Studies—Approved 2001

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Identify and describe roles, rights, and responsibilities fulfilled by contributing members of societies. Identify and describe people, symbols, and practices associated with the United States of America. Identify, sort, and classify characteristics of people to determine how people meet similar needs. Identify and organize geographic characteristics to tell one place from another and describe how people change or adapt to the environment. Describe how goods are made and acquired. Compare daily life and objects of today and long ago.	Integrate ideas and information about relationships among rules, rights, and responsibilities to make effective decisions. Identify and describe people, symbols, and practices important to democratic principles associated with the United States of America. Compare similarities and differences in ways that people of different cultural backgrounds fulfill needs and wants and contribute to society. Identify and describe how goods and services are made, distributed, and acquired. Integrate ideas and information about geographic characteristics to identify how people modify and adapt to the environment. Sort and classify events, people, and objects as belonging to the past or present.	Identify and describe relationships among the fulfillment of rights and responsibilities and the development of democratic ideas and skills. Consider new and diverse ideas and multiple perspectives to infer and explain how people of different cultures meet needs. Integrate ideas and information about geographic characteristics to classify places and regions and describe how and why people modify and adapt to the environment. Identify and evaluate economic choices about production and distribution of goods. Organize events on timelines to identify and describe relationships.	Infer and explain meaning of democratic principles and practices associated with being a responsible citizen within the United States. Identify and describe relationships among people, decision-making, and events that lead to the development of supportive communities. Identify relationships among the production, distribution, and consumption of goods and services. Infer and explain characteristics of different cultures. Compare places and regions using geographic characteristics.	Select, evaluate, and use information to describe roles and responsibilities of individuals, groups, and government in Maryland and the United States of America. Formulate generalizations about how interactions between peoples and/or the environment influenced life within different Native American societies. Infer and explain goals, and accomplishments, and impacts of North American explorers. Select, evaluate, and use information to describe early settlements in North America. Formulate generalizations about how interactions between peoples and/or the environment influenced life within colonial societies.	Formulate generalizations about the role and influence of individuals, groups, and events leading to the onset of and during the Revolutionary War. Formulate generalizations about roles and perspectives of individuals and groups which shaped events leading to and during the Constitutional Convention. Infer and explain the significance of principles and organizational structures found in governing documents. Infer and explain how geographic characteristics influenced settlement patterns in Maryland and the United States. Formulate generalizations about interactions between decisions made by individuals and governments and wants.

Desired Outcomes and Indicators – Grade K – Art—Approved 2006

Art

Transform ideas into visual compositions.
I.2.K.a Describe the subject matter of various works of art.
I.2.K.b Use color, line, shape, and *texture* to represent ideas visually from observation, memory, and imagination.
II.1.K.a Observe works of art and describe ideas expressed by different artists.
II.1.K.b Use selected works of art as inspiration to express ideas visually and verbally about oneself.
II.2.K.a Describe themes in artworks.
II.2.K.b Identify reasons for creating personal artworks.
II.3.K.a Describe the theme and subject matter of selected artworks.
II.3.K.b Categorize artworks by theme and subject matter.
I.3.K.b Create artworks that use color, line, shape*,* texture and basic principles of design to express ideas.
III.1.K.c Create artworks that explore the uses of color, line, shape, and texture to express ideas.
III.2.K.a Identify ideas that come from observation, memory, and imagination.

Identify, select, and organize the elements of art and principles of design to create visual compositions.
I.1.K.a Describe colors, lines, shapes, and textures found in the environment.
I.1.K.b. Represent observed form by combining colors, lines, shapes, and *textures.*
I.2.K.b Use color, line, shape, and *texture* to represent ideas visually from observation, memory, and imagination.
I.3.K.b Create artworks that use color, line, shape*,* texture and basic principles of design to express ideas.
III.1.K.c Create artworks that explore the uses of color, line, shape, and texture to express ideas.
III.2.K.b Identify and use color, line, shape, and texture in artworks.

Generate a variety of responses to artwork using the elements of art and principles of design.
I.3.K.a Identify color, line, shape, texture and basic principles of design in artworks.
IV.1.K.a Observe, describe, and respond to selected artworks.

Generate artwork using appropriate processes and materials.
II.4.K.a Identify connections between the visual arts and other content areas.
II.4.K.b Identify processes used to make art.
III.1.K.a Experiment with art media, processes and techniques and identify ways they can be used to express thoughts and feelings.
II.1.K.b Safely manipulate and share art media and tools. Assist in cleaning the workplace.

Desired Outcomes and Indicators Grade K – General Music—Approved 2006

music

Perform alone and in an ensemble: explore steady beat and rhythm patterns, and demonstrate and describe different ways to use the voice.	
I.2.K.d	Explore steady beat through playing classroom instruments.
III.2.K.b	Use body percussion, classroom instruments, and "found" sounds to create rhythmic sound patterns.
I.2.K.c	Imitate rhythm patterns on classroom instruments.
IV.1.K.c	Demonstrate appropriate audience behaviors.
I.2.K.a	Sing within a limited vocal range.
I.2.K.b	Sing songs that use the voice in a variety of ways.
II.1.K.a	Sing, move, and play music associated with school and the community.
II.1.K.b	Sing and listen to music from a variety of world cultures.
II.2.K.a	Listen to and perform singing games and finger play and explain their use and significance in the lives of those who created them.
I.3.K.c	Follow simple directions or verbal cues in singing games.

Represent musical ideas with pictures.	
I.4.K.a	Produce appropriate sounds in response to picture symbols representing long/short and high/low sounds.
III.2.K.a	Create a sound piece by placing pictorial representations in a configuration which indicates how the corresponding sounds are to be performed.

Identify musical contrasts and repeating sections.	
I.1.K.b	Identify repeated sections in music.
I.1.K.c	Identify sounds as fast/slow, loud/soft, long/short, high/low.

Perform movements to demonstrate different meters and singing games.	
I.3.K.a	Maintain personal space while moving to music.
I.3.K.d	Respond to music in several different meters through locomotor and non-locomotor movement.
I.3.K.b	Respond to beat through locomotor and non-locomotor movement.
I.3.K.c	Follow simple directions or verbal cues in singing games.

Desired Outcomes and Indicators Grade K – Health Education—Approved 2006

Health

Identify and describe strategies to promote lifelong wellness and objectives.

1.K.A.1 Recognize methods of communication.
- a. Demonstrate positive communication among peers.

1.K.B.1 Examine emotions and responses to various situations.
- a. Identify basic emotions/feelings.
- b. Demonstrate expression of basic emotions/feelings.

1.K.E.1 Identify positive and negative character traits, contributing to one's uniqueness.
- a. Identify character traits contributing to your uniqueness.
- b. Identify actions to make a friend.

3.K.A.1 Identify ways to care for your body.
- a. Identify why it is important to keep your body clean such as preventing diseases, smelling nice, looking nice.
- b. List ways you can keep your body clean such as taking a bath or shower, shampooing hair, washing you hands, wearing clean clothes, and brushing your teeth.
- c. List the proper steps for hand-washing.

4.K.A.1 Define a family unit.
- a. Define what is a family.
- b. Label who is in your family.
- c. Explain/Interpret where you fit in your family structure.
- d. Analyze family structures in media.

6.K.A.1 Identify the relationship between food and the senses.
- a. Compare foods that have different smells.
- b. Tell why food appearance affects food choices, such as color, shape, and texture.

6.K.B.1 Tell the source of different foods.
- a. Identify foods that come from different sources, such as plant and animal.

6.K.C.1 Define proper eating manners.
- a. Demonstrate proper eating manners, such as chew with mouth closed, don't talk with mouth full, don't reach across the table, and don't grab food from others' plates.

6.K.E.1 Recognize the relationship between food and health.
- a. Explain how food affects the body.
- b. Discuss how media influences food choices.

6.K.F.1 Identify food categories.
- a. Name the food groups.
- b. List examples in each food group.

7.K.A.1 Define disease.
- a. Define the word disease.

7.K.B.1 Identify ways to reduce risk for becoming sick.
- a. List actions to prevent illness, such as washing hands, covering sneeze/cough, and getting immunized (shots).
- b. Describe and demonstrate correct actions to prevent illness.
- c. Describe when hands should be washed, such as before preparing/eating food, after restroom use, and other appropriate times.

Identify and describe strategies to stay safe.

2.K.A.1 Identify appropriate uses of medicine.
- a. List common medicines.
- b. Discuss safe use of medicines.

5.K.A.1 Recognize how to respond appropriately to emergency situations.
- a. Explain how to respond to emergency situations such as tell an adult and call 911.

5.K.B.1 Identify ways to be safe when outdoors.
- a. Identify how to cross a street safely, including *Look* (left, right, left), *Listen*, and *Think*.

5.K.B.2 Identify actions to stay safe from fires.
- a. Describe ways to prevent accidentally starting a fire.
- b. Demonstrate skills to keep safe from fires.

5.K.B.3 Identify ways to be safe in a car.

a. List safety rules for being a good passenger, for example wear a seat belt, sit quietly, sit in child safety seat, and always ride in the back seat.

5.K.B.4 Tell what to know when lost (separated).

a. Notify a trusted adult.
b. Designate a location to meet.
c. Express personal information such as name, phone number, address, parents'/caregivers' name, school, and group.

Desired Outcomes and Indicators Kindergarten – Information Literacy—MSDE

Info. Lit.

Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need.
1.B.1 Identify an assigned or personal information need. a. With guidance, identify an assigned information need. b. With guidance, identify a personal information need. 1.B.2 Determine the scope of the information need. a. With guidance, use criteria to determine the scope of an information need. 1.B.3 Formulate and refine questions to meet an information need. a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need. 3.A.1 Use specific sources to find information. a. With guidance, identify keywords and text features that help find information within a specific source. b. With guidance, use keywords and text features to find information within a specific source. c. With guidance, use technology tools to find data/information within a specific source. 3.A.2 Evaluate the relevance of information within a source to meet the information need. a. With guidance, differentiate between fiction and nonfiction information within a specific source. b. With guidance, confirm that the information found within a specific source matches the information need. 3.C.1 Record data/information in a variety of formats. a. With guidance, explain why it is necessary to record data/information to meet the information need. 3.C.2 Use an appropriate and accepted citation style to create a source list. a. With guidance, explain the purpose of giving credit to sources of information. b. Identify the roles and responsibilities of authors, illustrators, and publishers. c. With guidance, create a modified class source list.

Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need.
2.A.1 Identify resources to meet the information need. a. With guidance, explore and identify human, print, online, and multimedia resources. b. With guidance, decide which resources best match an identified information need. 2.B.1 Locate and select sources to meet the information need. a. With guidance, identify the sections of the media center and the attributes of the sources located within each section. 2.B.2 Evaluate sources to meet the information need. b. With guidance, use text features effectively to select sources that meet the information need. 6.A.2 Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need. a. Follow circulation procedures and policies in the media center. b. Browse and select literature and/or multimedia in a variety of genres.

Sort and classify recorded information to create a product responding to personal or content information need.
4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need. a. With guidance, identify the main idea of the recorded information. b. With guidance, compare recorded information to prior knowledge and make personal connections. c. With guidance, evaluate recorded information for relevance and completeness. 4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need. a. With guidance, determine whether the recorded data/information is fact or opinion and use it appropriately to meet an information need. d. With guidance, make connections and inferences using prior knowledge and the recorded data/information. e. With guidance, summarize the recorded data/information. 4.B.1 From the recorded data/information, ethically generate new understandings and knowledge related to the information need. b. With guidance, draw conclusions from the recorded data/information to create new understandings. 5.A.1 Use a variety of formats to prepare the findings/conclusions of the information need for sharing. a. With guidance, organize and display findings/conclusions in a variety of formats. d. With guidance, use technology to present findings/conclusions in a variety of formats.

Desired Outcomes and Indicators Kindergarten – Information Literacy—MSDE

Generate ideas about relationships within fiction and nonfiction literature and real life.
6.A.1 Identify relationships within fiction and nonfiction literature and real life. a. With guidance, read, listen to, view, and discuss literature that reflects personal interests, provides imagined experiences, and validates individual concerns and real experiences. b. With guidance, make literature-to-self, literature-to-literature, and literature-to-multimedia connections, and, with guidance, make literature-to-world connections. c. With guidance, read, listen to, view, and integrate information from non-fiction to appreciate fiction. d. With guidance, use literature to answer questions or solve problems.

Desired Outcomes and Indicators Kindergarten – Mathematics—Common Core Standards

Math

Represent, order, and compare whole numbers or objects to solve problems, decompose numbers (less than 20), model joining and separating situations, and fluently add and subtract (within 5). **Represent, order, and compare whole numbers or objects to solve problems.** **Common Core Critical Area: Representing and comparing whole numbers, initially with sets of objects.**	
1.K.A.1	Count to 100 by ones and by tens.
1.K.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
1.K.A.3	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
1.K.A.4	Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.
1.K.A.5	Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
1.K.A.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
1.K.A.7	Compare two numbers between 1 and 10 presented as written numerals.
1.K.B.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
1.K.B.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
1.K.B.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
1.K.B.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
1.K.B.5	Fluently add and subtract within 5.
1.K.C.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
2.K.A.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Describe and compare attributes of two- and three-dimensional shapes in different sizes and orientations, compose simple shapes to form larger shapes, and apply spatial reasoning to describe relative position. **Common Core Critical Area: Describing shapes and space.**	
2.K.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2.K.A.2	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.
3.K.A.1	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
3.K.A.2	Correctly name shapes regardless of their orientations or overall size.
3.K.A.3	Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
3.K.A.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
3.K.A.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
3.K.A.6	Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"

Desired Outcomes and Indicators Grade K – Physical Education—Approved 2006

Phys. Ed

Demonstrate sequential application of movement cues to control body and equipment in space.
II.K.1 Participate in movement that demonstrates motion concepts.
II.K.2 Experience the concept of balance through movement.
IV.K.1 Experience a variety of age appropriate activities.
IV.K.2 Demonstrate skill improvement.
IV.K.3 Improve performance through positive feedback.
VI.K.1 Practice fundamental movement skills.
a. Demonstrate proficiency using the locomotor skills of walking, running, hopping, jumping, and galloping.
d. Demonstrate proficiency when jumping over a stationary low level object.
f. Practice variety of locomotor skills, such as skip, slide, and leap.
g. Explore a variety of non-locomotor movements, such as bend, pull, stretch, twist, turn, push, swing, and lift.
i. Practice the five forms of take offs and landings.
VI.K.3 Practice skill themes.
a. Demonstrate catching a self-thrown lightweight object such as a scarf or a balloon.
c. Demonstrate maintaining balance on a base of support.
d. Demonstrate striking a lightweight object with the hand.
e. Practice underhand tosses and overhand throws.
f. Practice striking lightweight objects with various body parts.
h. Practice kicking.
j. Explore striking with implements.
k. Explore dribbling with the feet.

Classify and demonstrate levels, pathways, and relationships to meet the challenges of the activity.
II.K.2 Experience the concept of balance through movement.
IV.K.3 Improve performance through positive feedback.
VI.K.1 Practice fundamental movement skills.
b. Demonstrate a proficient degree of spatial awareness (location and levels).
c. Demonstrate proficiency when moving in relation to objects (over/under, on/off, near/far and in front/behind).
e. Practice spatial awareness (directions, pathways).
h. Practice moving in relation to one's body parts, objects, and/or people.
VI.K.2 Develop creative movement skills.
VI.K.3 Practice skill themes.
g. Practice balancing on a variety of body parts.
i. Explore transferring weight from different body parts.

Compare activities that promote fitness and their affect on the heart and lungs.
I.K.1 Identify and demonstrate the effects of physical activity on the body systems.
I.K.2 Explore the components of the FITT principle using physical activity.
I.K.3 Explore and identify the components of fitness.
I.K.4 Investigate the benefits of physical activity.
I.K.5 Recognize the relationship between nutrition and physical activity.
I.K.6 Recognize the factors influencing exercise adherence.
V.K.1 Experience individual aerobic capacity/cardio respiratory fitness.
V.K.2 Experience activities that involve muscular strength and muscular endurance.

Identify and demonstrate behaviors that promote cooperation, respect, and responsibility within a movement setting.
III.K.2 Work effectively with others in physical activity settings.
III.K.3 Build relationships to develop a sense of community with the school.

Desired Outcomes and Indicators Grade K – Reading Language Arts—Common Core Standards

RLA

Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension.

A. Print Concepts

1.K.A.1 Demonstrate understanding of the organization and basic features of print.

a. Follow words from left to right, top to bottom, and page by page.
b. Recognize that spoken words are represented in written language by specific sequences of letters.
c. Understand that words are separated by spaces in print.
d. Recognize and name all upper- and lowercase letters of the alphabet.

B. Phonological Awareness

1.K.B.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).

a. Recognize and produce rhyming words.
b. Count, pronounce, blend, and segment syllables in spoken words.
c. Blend and segment onsets and rimes of single-syllable spoken words.
d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel consonant, or CVC) words.* (This does not include CVCs ending with /l/, /r/, or /x/.)
e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.

C. Phonics and Word Recognition

1.K.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.

a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sound for each consonant.
b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

D. Fluency

1.K.D.4 Read emergent-reader texts with purpose and understanding.

Read emergent-reader literary texts with purpose and understanding.

A. Key Ideas and Details

2.K.A.1 With prompting and support, ask and answer questions about key details in a text.
2.K.A.2 With prompting and support, retell familiar stories, including key details.
2.K.A.3 With prompting and support, identify characters, settings, and major events in a story.

B. Craft and Structure

2.K.B.4 Ask and answer questions about unknown words in a text.
2.K.B.5 Recognize common types of texts (e.g., Story books, poems).
2.K.B.6 With prompting and support, name the author and illustrator of a story and define the role of each in telling the story

C. Integration of Knowledge and Ideas

2.K.C.7 With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).
2.K.C.9 With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.

D. Range of Reading and Level of Text Complexity

2.K.D.10 Actively engage in group reading activities with purpose and understanding.

Read emergent-reader informational texts with purpose and understanding

A. Key Ideas and Details

3.K.A.1 With prompting and support, ask and answer questions about key details in a text.
3.K.A.2 With prompting and support, identify the main topic and retell key details of a text.

3.K.A.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.

B. Craft and Structure
3.K.B.4 With prompting and support, ask and answer questions about unknown words in a text.
3.K.B.5 Identify the front cover, back cover, and title page of a book.
3.K.B.6 Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.

C. Integration of Knowledge and Ideas
3.K.C.7 With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
3.K.C.8 With prompting and support, identify the reasons an author gives to support points in a text.
3.K.C.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

D. Range of Reading and Level of Text Complexity
3.K.D.10 Actively engage in group reading activities with purpose and understanding.

Write opinions, informative/explanatory text, and narratives by experimenting with beginning writing processes and traits.

A. Text Types and Purposes
4.K.A.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .).
4.K.A.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
4.K.A.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

B. Production and Distribution of Writing
4.K.B.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.
4.K.B.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.

C. Research to Build Knowledge
4.K.C.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).
4.K.C.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Listen and speak effectively to share thoughts, ideas, and grade-level appropriate topics and texts.

A. Comprehension and Collaboration
5.K.A.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
b. Continue a conversation through multiple exchanges.
5.K.A.2 Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
5.K.A.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

B. Presentation of Knowledge and Ideas
5.K.B.1 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
5.K.B.2 Add drawings or other visual displays to descriptions as desired to provide additional detail.
5.K.B.3 Speak audibly and express thoughts, feelings, and ideas clearly.

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

A. Conventions of Standard English
6.K.A.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
a. Print many upper- and lowercase letters.

b. Use frequently occurring nouns and verbs.
c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs*; *wish, wishes*).
d. Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*).
e. Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*).
f. Produce and expand complete sentences in shared language activities.

6.K.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
a. Capitalize the first word in a sentence and the pronoun I.
b. Recognize and name end punctuation.
c. Write a letter or letters for most consonant and short-vowel sounds (phonemes).
d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.

B. Vocabulary Acquisition and Use
6.K.B.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content.*
a. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb *to duck*).
b. Use the most frequently occurring inflections and affixes (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word.

6.K.B.5 With guidance and support from adults, explore word relationships and nuances in word meanings.
a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).
c. Identify real-life connections between words and their use (e.g., note places at school that are *colorful*).
d. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk, march, strut, prance*) by acting out the meanings.

6.K.B.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

Desired Outcomes and Indicators Grade K –Science & Engineering—Approved 2001

science

Describe and compare how plants and animals grow and survive through a life cycle.
3.1.C.2 Recognize that all living things have offspring, usually with two parents involved. a. Examine a variety of living things and their offspring and describe what each parent and offspring looks like. b. Identify similarities and differences among the offspring and between the offspring and each parent. c. Based on observations, construct an appropriate response to the question "Are parents and offspring more similar than they are different?" 3.K.C.1 Observe, describe and compare the life cycles of different kinds of animals and plants. a. Identify and draw pictures that show what an animal (egg to frog) and a plant (seed to tree) looks like at each stage of its life cycle. b. Describe and compare the changes that occur in the life cycle of two different animals, such as a frog and a puppy and two different plants, such as a rosebush and a maple tree. c. Identify and describe the changes that occur in humans as they develop: size, weight, appearance of different parts.

Classify plants and animals based on external features and explain how external features are used to survive in an environment.
3.K.D.1 Recognize that living things are found almost everywhere in the world and that there are somewhat different kinds of living things in different places. a. Observe, describe, and give examples and describe the many kinds of living things found in different places in Maryland. b. Using pictures, films and illustrated texts identify, describe and compare living things found in other states such as Texas and Alaska to those found in Maryland. c. Explain that external features of plants and animals affect how well they thrive in different places. 3.K.A.2 Gather information and direct evidence that humans have different external features, such as size, shape, etc. But that they are more like one another than like other animals. a. Organize data collected and draw conclusions about similarities and differences among humans. b. Explain ways in which humans are more like one another than like other animals. c. Describe similarities in what both humans and other animals are able to do because they possess certain external features. 3.1.A.1 Compare and explain how external features of plants and animals help them survive in different environments. a. Use the senses and magnifying instruments to examine a variety of plants and animals to describe external features and what they do. b. Compare similar features in some animals and plants and explain how each of these enables the organism to satisfy basic needs. c. Use the information collected to ask and compare answers to questions about how an organism's external features contribute to its ability to survive in an environment. d. Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed. 3.1C.1 Explain that there are differences among individuals in any population. a. Examine a variety of populations of plants and animals (including humans), to identify ways that individual members of that population are different from one another. b. Make a list of possible advantages and disadvantages of differences of individuals in a population of organisms.

Identify, describe and compare adaptations of plants and animals in an environment.
3.K.F.1 Investigate a variety of familiar places where plants and animals live to describe the place and the living things found there. a. Describe observations using drawings, oral or written text of the place and some of the living things found there. b. Based on the observations collected at each place compare the plants and animals found there. c. Describe ways that animals and plants found in each place interact, with each other and with their environment. 3.K.A.1 Observe a variety of familiar animals and plants (perhaps on the school grounds, in the neighborhood, and at home) to discover patterns of similarity and difference among them. a. Identify and describe features (observable parts) of animals and plants that make some of them alike in the way they look and the things they do. b. Compare descriptions of the features that make some animals and some plants very different from one another. c. Identify a feature that distinguishes animals that fly (as an example) from animals that cannot and examine a variety of animals that can fly to discover other similar features they might share. d. Compare ideas about how the features of animals and plants affect what these animals and plants are able to do.

Identify and describe attributes of weather conditions using senses and tools to collect observational data.
2.K.E.2 Investigate and gather information about changes in weather. a. Observe and describe different weather conditions using senses. b. Record observations using pictures, pictographs, or written/oral language. c. Describe qualitative changes in weather, such as temperatures, precipitation, wind, etc.

Desired Outcomes and Indicators Grade K –Science & Engineering—Approved 2001

Identify and describe weather patterns over time and weather's impact on human's daily activities.
2.1.E.2 Describe that some events in nature have repeating patterns. a. Observe and compare day-to-day weather changes. b. Observe, record, and compare weather changes from month to month. c. Compare temperatures and type and amount of precipitation across the months. d. Identify the impact of weather changes on daily activities. e. Identify and describe patterns of weather conditions based on data collected. 2.1.E.1 Describe observable changes in water on the surface of the Earth. a. Cite examples of the sun's effect on what happens to water on the Earth's surface.

Desired Outcomes and Indicators Grade K – Social Studies—Approved 2001

Social Studies

Identify and describe roles, rights, and responsibilities fulfilled by contributing members of societies.

1.K.A.1. Identify the importance of rules.
- a. Identify reasons for classroom and school rules, such as maintaining order and keeping the community safe.
- b. Recognize rules help promote fairness, responsible behavior, and privacy.

1.K.C.1. Describe roles, rights, and responsibilities of being a member of the family and school.
- a. Describe the roles, rights, and responsibilities of family members.
- b. Describe the roles of members of the school, such as principal, crossing guard, bus drivers, and teachers.
- c. Identify and describe rights, and responsibilities in the classroom and family.

Identify and describe people, symbols, and practices associated with the United States of America.

1.K.A.2. Identify symbols and practices associated with the United States of America.
- a. Identify common symbols, such as the American Flag, and Statue of Liberty.
- b. Recognize that saying the Pledge of Allegiance and singing "The Star-Spangled Banner" are practices associated with being a citizen.

1.K.B.1. Identify people important to the American political system.
- a. Identify the contributions of people, past and present, such as George Washington, Rosa Parks, and the current president.
- b. Use informational text to identify and discuss the contributions of individuals recognized on national holidays, such as Martin Luther King, Jr. Day and Presidents' Day.

Identify, sort, and classify characteristics of people to determine how people meet similar needs.

2.K.A.1. Identify similarities and differences in people's characteristics, habits, and living patterns to describe how they meet the same human needs.
- a. Use experiences, such as class trips, classroom visitors, stories, and electronic media, to give examples of different choices people make about meeting their human needs for food, clothing, shelter, and other commonalities, such as recreation, stories, and music.
- b. Give examples of qualities, such as customs, interests, skills, and experiences that make individuals and families in their immediate environment unique.

2.K.C.1. Demonstrate how groups of people interact.
- a. Identify, discuss, and demonstrate appropriate social skills, such as listening to the speaker, taking turns, settling disagreements, and reaching compromise at home and in school.

Identify and organize geographic characteristics to tell one place from another, and describe how people change or adapt to the environment.

3.K.A.1. Identify and describe how a globe and maps can be used to help people locate places.
- a. Describe a globe as a model of Earth showing land and water.
- b. Describe how maps are models showing physical features and/or human features of places.
- c. Identify a location by using terms such as near-far, above-below, and here-there.
- d. Identify pictures and photographs that represent places on a map such as, a playground and a fire station.

3.K.B.1. Describe places in the immediate environment using natural/physical and human-made features.
- a. Recognize physical features as landforms and bodies of water using photographs and pictures.
- b. Identify land forms, such as mountains and hills, and bodies of water, such as oceans, rivers, and streams.
- c. Using photographs and pictures, recognize human-made features as modifications people have made to the land.
- d. Identify human-made features, such as buildings, sidewalks, streets, and bridges.

3.K.D.1. Describe how people adapt to and modify their immediate environment.
- a. Identify ways people adapt to the environment, such as wearing clothing that is appropriate to the weather.
- b. Identify ways that people change their environment to meet their needs, such as planting crops or cutting forests.

Describe how goods are made and acquired.

4.K.A.1. Describe choices people make because of unlimited economic wants.
- a. Explain that goods are things that people make or grow.
- b. Identify situations where people make choices.

4.K.A.2. Identify that resources are used to make products.
- a. Recognize workers as human resources.
- b. Describe some jobs and what is required to perform them.
- c. Recognize that natural resources, such as water, trees, and plants are used to make products.

4.K.A.3. Explain how technology affects the way people live, work, and play.
- a. Begin to be aware of technology and how it affects life.

4.K.B.1. Identify types of local markets.
- a. Describe how buyers and sellers make exchanges at the market.

4.K.B.2. Describe how goods are acquired.
- a. Explain that money is one way to acquire goods.
- b. Explain that trading is another way to acquire goods.
- c. Recognize that goods have different values.

3.K.C.1. Describe how transportation and communication link people and places.
- b. Explain how transportation is used to move goods and people from place to place.

Compare daily life and objects of today and long ago.

5.K.A.2. Compare daily life and objects of today and long ago.
- a. Compare tools and toys of the past with those of today.
- b. Tell about people in the past using informational text and features.
- c. Observe and discuss photographs of the past and compare with photographs of similar images, such as old photographs of the school and community.

5.K.A.1. Distinguish among past, present, and future time.
- a. Identify and describe events of the day in chronological order.
- b. Describe daily events in terms of yesterday, today, and tomorrow.

3.K.C.1. Describe how transportation and communication link people and places.
- a. Identify ways that people travel on land, water, and air.
- c. Identify ways that people communicate messages.

Desired Outcomes and Indicators Grade 1 – Art—Approved 2006

Art

Transform personal thoughts and feelings into visual compositions.	
I.2.1.a	Identify ways that artists represent what they see, know, feel, and imagine.
I.2.1.b	Use color, line, shape, texture, and form to represent ideas visually from observation, memory, and imagination.
I.3.1.b	Use line, shape, texture, form, color and basic principles of design to communicate personal meaning in artworks.
II.2.1.b	Identify reasons why other artists create artworks.

Identify, describe, represent, and compare living things and objects in visual compositions.	
I.1.1.b	Represent observed physical qualities of people, animals, and objects in the environment using color, line, shape, texture, and form.
II.1.1.a	Observe works of art and identify ways that artists express ideas about people, places, and events.
II.1.1.b	Use selected works of art as inspiration to express ideas visually and verbally about people, places, and events.
II.3.1.a	Categorize selected artworks by theme and content.
II.3.1.b	Compare how selected artworks are similar in theme and content.

Identify, select, and organize the elements of art and principles of design to create visual compositions.	
I.1.1.a.	Describe colors, lines, shapes, textures, and forms found in observed objects and the environment.
I.3.1.a	Explore the qualities of color, line, shape, texture, form and basic principles of design in artworks.
III.1.1.c	Create artworks that explore the elements of art: color, line, shape, texture, form, and the principles of design: pattern and repetition, to express ideas, thoughts, and feelings.
III.2.1.b	Identify and use color, line, shape, texture, form and selected principles of design: pattern and repetition in artworks.

Generate a variety of responses to artwork using the elements of art and principles of design.	
IV.1.1.a	Observe and describe the aesthetic qualities of teacher selected artworks, using art vocabulary to express a personal response.
IV.1.1.b	Identify established criteria for responding to the aesthetic qualities of artworks by interpreting exemplary models.
IV.1.1.c	Use established criteria to respond to artwork.

Create artwork using appropriate processes and materials.	
III.1.1.a	Experiment with art media, processes, and techniques and describe ways they can be used to express thoughts and feelings.
III.1.1.b	Safely manipulate and share art media and tools. Assist in cleaning tools, the workspace, and the art room.

Desired Outcomes and Indicators Grade 1 – General Music—Approved 2006

music

Perform alone and in an ensemble: steady beat, patterns, and sing with upper, lower, and middle registers.	
I.2.1.c	Imitate rhythmic and tonal patterns on classroom instruments.
I.2.1.d	Perform steady beat on classroom instruments.
IV.1.1.c	Demonstrate appropriate audience behaviors.
I.2.1.a	Sing in upper, lower, and middle registers.
I.2.1.b	Sing a variety of songs and tonal patterns, matching pitch within a limited vocal range.
II.1.1.b	Sing, listen to, and describe music from a variety of world cultures.
II.2.1.a	Perform patriotic songs and explain their purpose.

Improvise sounds to enhance a story or song, and create a simple composition and notate with icons.	
III.1.1.a	Improvise using instruments to enhance a story or song.
III.1.1.b	Improvise using the voice to enhance a story or song.
III.2.1.a	Create ostinato patterns to enhance a given melody.
III.2.1.b	Create simple rhythmic and melodic patterns and notate them using iconic representation.

Read and notate simple rhythm and pitch patterns.	
I.4.1.a	Read simple rhythm and pitch patterns.
I.4.1.b	Notate simple rhythm and pitch patterns, placing notes in spaces and on lines.

Identify and describe same and different sections, musical contrasts, classroom instruments, and styles in music; self-monitor performances.	
I.1.1.a	Identify various classroom instruments by sight and sound.
I.1.1.b	Identify repeated and contrasting sections heard in music.
I.1.1.c	Compare musical sounds: fast/slow, loud/soft, long/short, high/low.
II.1.1.a	Describe how music is used in the home, school, and community.
II.1.1.b	Sing, listen to, and describe music from a variety of world cultures.
II.2.1.a	Perform patriotic songs and explain their purpose.
IV.1.1.a	Evaluate performances using given criteria.

Perform movements to demonstrate steady beat, musical cues, and meter.	
I.3.1.a	Create simple movement patterns for music.
I.3.1.b	Perform a steady beat through locomotor and non-locomotor movement.
I.3.1.c	Follow musical cues in singing games.
I.3.1.d	Use a variety of locomotor and non-locomotor movements to show meter.

Desired Outcomes and Indicators Grade 1 – Health Education—Approved 2006

Health

Sort and classify strategies to stay safe.

1.1.D.1 Identify how to make a good choice/decision.
- a. Explain the meaning of the word choice/decision.
- b. Identify and describe what makes a good choice/decision such as safe, respectful, legal, and parent approval.

2.1.A.1 Identify appropriate uses of medicine.
- a. Define the term drug.
- b. Define the term medicine.
- c. Describe the functions of medicines.

5.1.A.1 Describe how to respond appropriately to emergency situations.
- a. Practice how to respond to an emergency, for example tell an adult and call 911.

5.1.B.1 Identify ways to be safe when outdoors.
- a. Demonstrate crossing the street safely.

5.1.B.5 Identify ways to stay safe around animals.
- a. Show precautions to take around animals.
- b. Demonstrate steps for approaching pets or other animals safely.

5.1.B.6 Identify ways to stay safe at home.
- a. List actions to be safe in the kitchen.
- b. Create a list of products in the house that can be harmful.

5.1.C.1 Identify the characteristics of a bully.
- a. Describe examples of teasing.
- b. Discuss examples of bullying including pushing/shoving (physical) and verbal threats.
- c. Identify examples of bullying/teasing in the media.

5.1.C.2 Define and identify telling and tattling.
- a. Distinguish the difference between telling and tattling.

5.1.D.1 Identify ways to stay safe from strangers.
- a. Model actions to stay safe around strangers.

Integrate strategies to improve health and to promote lifelong wellness.

1.1.A.1 Recognize methods of communication.
- a. Define ways to communicate with friends and family, such as eye-contact and tone of voice.

1.1.B.1 Examine emotions and responses to various situations.
- a. Define different feelings.
- b. Describe how it feels to be happy, upset, calm, and surprised.
- c. Identify what makes you happy, upset, calm, and surprised.

2.1.B.1 Identify how tobacco use harms health.
- a. List products containing tobacco.
- b. Describe the harmful effects of tobacco such as hard to breathe, bad breath, stained teeth, cause disease.

2.1.C.1 Identify the physical effects of using alcohol.
- a. Distinguish alcohol as a drug.
- b. Identify products containing alcohol.
- c. Recognize that alcohol is unhealthy and illegal for children.

3.1.A.1 Explain how to improve or maintain personal health.
- a. Describe ways to promote dental health such as brushing and flossing teeth, visiting dentist, and eating healthy foods.

3.1.B.1 Identify health services available in the school.
- a. List people in the school that provide care such as school nurse, counselors, doctors, and clinic workers.
- b. Describe how health service providers help you.

3.1.C.1 Identify health issues created by pollution.
- a. Explain why litter is harmful.
- b. List ways to prevent littering.

4.1.A.1 Identify what is special about your family.

a. List members of your family.
b. Describe special traits about each member of your family.
c. Recognize differences in family structure and custom.

4.1.B.1 Describe the growth process.
a. Explain how height and weight relate to the growth process.

6.1.A.1 Demonstrate the relationship between food and the senses.
a. Differentiate how the five senses affect food choices.

6.1.E.1 Recognize the relationship between food and health.
a. Define physical fitness.
b. Describe how food keeps the body healthy by maintaining strong bones, muscles, and teeth and preventing illness.

6.1.F.1 Recognize that foods are categorized into groups.
a. Recognize the *My Pyramid* as an outline for healthy eating.
b. Explain the location of the food groups on the *My Pyramid*.
c. Demonstrate why it is important to eat at least five servings of fruits and vegetables a day, such as Fruits and Veggies: More Matters.

7.1.B.1 Identify basic ways to prevent the spread of germs.
a. Define germs.
b. Describe ways germs can enter the body.

Desired Outcomes and Indicators Grade 1 – Information Literacy—MSDE

Info. Lit.

Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions in an ethical manner to guide personal or content information need.
1.B.1 Identify an assigned or personal information need. a. With guidance, identify an assigned information need. b. With guidance, identify a personal information need. 1.B.2 Determine the scope of the information need. a. With guidance, use criteria to determine the scope of an information need. 1.B.3 Formulate and refine questions to meet an information need. a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need. 3.A.1 Use specific sources to find information. a. With guidance, identify keywords and text features that help find information within a specific source. b. With guidance, use keywords and text features to find information within a specific source. c. With guidance, use technology tools to find data/information within a specific source. 3.A.2 Evaluate the relevance of information within a source to meet the information need. a. With guidance, differentiate between fiction and nonfiction information within a specific source. b. With guidance, confirm that the information found within a specific source matches the information need. 3.C.1 Record data/information in a variety of formats. a. Explain why it is necessary to record data/information to meet the information need. b. With guidance, express the different ways to organize information, (e.g., alphabetically; numerical order; part to whole; compare and contrast; categorize). c. With guidance, identify formats for organizing data/information. d. With guidance, use keywords to identify relevant information. e. With guidance, avoid plagiarism by copying relevant information word for word and keeping track of the source. f. With guidance, use technology to record and organize data/information. 3.C.2 Use an appropriate and accepted citation style to create a source list. a. With guidance, explain the purpose of giving credit to sources of information. b. Identify the roles and responsibilities of authors, illustrators, and publishers. c. With guidance, create a modified class source list.

Identify and describe attributes of fiction and nonfiction resources and/or sources to select best match for personal or content information need.
2.A.1 Identify resources to meet the information need. a. With guidance, explore and identify human, print, online, and multimedia resources. b. With guidance, decide which resources best match an identified information need. 2.B.1 Locate and select sources to meet the information need. a. With guidance, identify the sections of the media center and the attributes of the sources located within each section. d. With guidance, select print, online, and multimedia sources that meet the information need. 2.B.2 Evaluate sources to meet the information need. b. With guidance, use text features effectively to select sources that meet the information need. 6.A.2 Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need. a. Follow circulation procedures and policies in the media center. b. Browse and select literature and/or multimedia in a variety of genres.

Sort and classify recorded information to create a product responding to personal or content information need.
4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need. a. With guidance, identify the main idea of the recorded information. b. With guidance, compare recorded information to prior knowledge and make personal connections. c. With guidance, evaluate recorded information for relevance and completeness. 4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need. a. With guidance, determine whether the recorded data/information is fact or opinion and use it appropriately to meet an information need. d. With guidance, make connections and inferences using prior knowledge and the recorded data/information. e. With guidance, summarize the recorded data/information. 4.B.1 From the recorded data/information, ethically generate new understandings and knowledge related to the information need.

a. With guidance, integrate the recorded data/information from multiple sources.
b. With guidance, draw conclusions from the recorded data/information to create new understandings.

5.A.1 Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
a. With guidance, organize and display findings/conclusions in a variety of formats.
b. With guidance, design layouts that communicate content effectively for intended audience.
d. With guidance, use technology to present findings/conclusions in a variety of formats.

Generate ideas about relationships within fiction and nonfiction literature and real life.

6.A.1 Identify relationships within fiction and nonfiction literature and real life.
a. With guidance, read, listen to, view, and discuss literature that reflects personal interests, provides imagined experiences, and validates individual concerns and real experiences.
b. With guidance, make literature-to-self, literature-to-literature, and literature-to-multimedia connections, and, with guidance, make literature-to-world connections.
c. With guidance, read, listen to, view, and integrate information from non-fiction to appreciate fiction.
d. With guidance, use literature to answer questions or solve problems.

Desired Outcomes and Indicators Grade 1 – Mathematics—Common Core Standards

Math

Select and apply strategies for addition and subtraction, including basic facts, to solve problems.
Common Core Critical Area: Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20.

1.1.B.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.1.B.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.1.B.3 Apply properties of operations as strategies to add and subtract.
1.1.B.4 Understand subtraction as an unknown-addend problem.
1.1.B.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.1.B.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.1.B.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.
1.1.B.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.
1.1.C.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Integrate concepts of grouping, ordering, and comparing in tens and ones to develop understanding of whole number relationships.
Common Core Critical Area: Developing understanding of whole number relationships and place value, including grouping in tens and ones.

1.1.C.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.1.C.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
- 10 can be thought of as a bundle of ten ones — called a "ten."
- The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

1.1.C.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
1.1.C.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.1.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
2.1.A.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Demonstrate strategies and explain thinking about the linear measurement process and telling time.
Common Core Critical Area: Developing understanding of linear measurement and measuring lengths as iterating length units.

2.1.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.
2.1.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
2.1.A.3 Tell and write time in hours and half-hours using analog and digital clocks.

Identify and describe attributes of two- and three-dimensional shapes, and compose and decompose shapes to build understanding of part-whole relationships.
Common Core Critical Area: Reasoning about attributes of, and composing and decomposing geometric shapes.

3.1.A.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
3.1.A.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
3.1.A.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Desired Outcomes and Indicators Grade 1 – Physical Education—Approved 2006

Phys. Ed

Demonstrate sequential application of movement cues to control body and equipment in space.	
II.1.1	Explore the concepts within Newton's Laws of Motion.
II.1.2	Explore static and dynamic balance concepts through movement.
	a. Demonstrate state and dynamic balance concepts through movement.
IV.1.1	Recognize through participating in a variety of activities, how individuals progress through stages of learning at various rates.
IV.1.2	Recognize that a person's skill development results from prior experience, natural ability, and practice.
VI.1.1	Demonstrate fundamental movement skills.
	a. Demonstrate proficiency of a variety of locomotor skills, such as hop, jump, skip, or gallop.
	d. Demonstrate proficiency when performing the five forms of take offs and landings.
	g. Practice chasing, fleeing, and dodging.
	h. Explore and practice the components of *efficiency*, such as time/speed, force, and flow.
VI.1.3	Developing proficiency in skill themes.
	a. Demonstrate catching a bounced ball or an underhand thrown object.
	b. Demonstrate using opposition when tossing and throwing.
	d. Demonstrate kicking a stationary ball.
	e. Demonstrate striking with various body parts.
	f. Practice striking with implements.
	g. Practice dribbling with the feet.

Adapt body positions and shapes through the application of directions, levels, and relationships to meet the challenges of the activity.	
II.1.2	Explore static and dynamic balance concepts through movement.
	b. Recognize the need for base of support and center of gravity in maintaining balance.
VI.1.1	Demonstrate fundamental movement skills.
	b. Demonstrate a proficient degree of spatial awareness (location, levels, directions, and pathways).
	c. Demonstrate proficiency when moving in relation to one's body parts.
	e. Practice a variety of non-locomotor movements such as bend, pull, stretch, twist, turn, push, swing, and lift.
	f. Practice combining movement concepts (levels, pathways, directions, time/speed, force, and flow).
VI.1.2	Develop creative movement skills.
VI.1.3	Developing proficiency in skill themes.
	c. Demonstrate maintaining balance on a base of support while changing body shapes.
	h. Experience and practice transferring weight from feet to hands.
	i. Explore a variety of tumbling experiences.

Identify and describe how exercise affects organs of the body and overall health and wellness.	
I.1.1	Identify and demonstrate the effects of physical activity on the body systems.
I.1.3	Explore and distinguish between the components of fitness.
I.1.4	Investigate the benefits of physical activity.
V.1.1	Explore individual aerobic capacity/cardio respiratory fitness.
V.1.2	Experience activities that involve muscular strength and muscular endurance.
V.1.3	Examine individual flexibility.

Identify rules that provide safe movement of people and equipment.	
III.1.2	Work effectively with others in physical activity settings.
III.1.3	Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.

Identify and demonstrate goal setting, planning, and practice.	
III.1.1	Recognize the relationship between effort and improvement.
III.1.4	Establish and modify personal physical activity goals while monitoring progress towards achievement.
IV.1.3	Recognize that skills develop with practice over time.

Desired Outcomes and Indicators Grade 1 – Reading Language Arts—Common Core Standards

RLA

Apply grade-level appropriate print concepts, phonological awareness skills, phonics/word analysis skills, and word recognition to read with sufficient accuracy and fluency to support comprehension.

A. Print Concepts

1.1.A.1 Demonstrate understanding of the organization and basic features of print.
- a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).

B. Phonological Awareness

1.1B.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
- a. Distinguish long from short vowel sounds in spoken single-syllable words.
- b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
- c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.
- d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

C. Phonics and Word Recognition

1.1.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- a. Know the spelling-sound correspondences for common consonant digraphs.
- b. Decode regularly spelled one-syllable words.
- c. Know final -e and common vowel team conventions for representing long vowel sounds.
- d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- e. Decode two-syllable words following basic patterns by breaking the words into syllables.
- f. Read words with inflectional endings.
- g. Recognize and read grade-appropriate irregularly spelled words.

D. Fluency

1.1.D.4 Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Read and comprehend prose and poetry of appropriately complex for grade 1 strategically and independently.

A. Key Ideas and Details

2.1.A.1 Ask and answer questions about key details in a text.
2.1.A.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.
2.1.A.3 Describe characters, settings, and major events in a story, using key details.

B. Craft and Structure

2.1.B.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
2.1.B.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
2.1.B.6 Identify who is telling the story at various points in a text.

C. Integration of Knowledge and Ideas

2.1.C.7 Use illustrations and details in a story to describe its characters, setting, or events.
2.1.C.9 Compare and contrast the adventures and experiences of characters in stories.

D. Range of Reading and Level of Text Complexity

2.1.D.10 With prompting and support, read prose and poetry of appropriate complexity for grade.

Read and comprehend informational texts appropriately complex for grade 1 strategically and independently.

A. Key Ideas and Details

3.1.A.1 Ask and answer questions about key details in a text.

3.1.A.2 Identify the main topic and retell key details of a text.
3.1.A.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.

B. Craft and Structure
3.1.B.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
3.1.B.5 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in text.
3.1.B.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

C. Integration of Knowledge and Ideas
3.1.C.7 Use the illustrations and details in a text to describe its key ideas.
3.1.C.8 Identify the reasons an author gives to support points in a text.
3.1.C.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

D. Range of Reading and Level of Text Complexity
3.1.D.10 With prompting and support, read informational text appropriately complex for grade 1.

Write opinions, informative/explanatory text, and narratives with guidance and support using writing processes and traits.

A. Text Types and Purposes
4.1.A.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
4.1.A.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
4.1.A.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

B. Production and Distribution of Writing
4.1.B.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
4.1.B.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

C. Research to Build Knowledge
4.1.C.7 Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).
4.1.C.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Listen and speak effectively to understand and communicate thoughts, ideas, and grade-level appropriate topics and texts.

A. Comprehension and Collaboration
5.1.A.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
c. Ask questions to clear up any confusion about the topics and texts under discussion.
5.1.A.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
5.1.A.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

B. Presentation of Knowledge and Ideas
5.1.B.1 Describe people, places, things, and events with relevant details, expressing ideas and feelings.
5.1.B.2 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
5.1.B.3 Produce complete sentences when appropriate to task and situation.

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

A. Conventions of Standard English
6.1.A.1 Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
a. Print all upper- and lowercase letters.
b. Use common, proper, and possessive nouns.

c. Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).
d. Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).
e. Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).
f. Use frequently occurring adjectives.
g. Use frequently occurring conjunctions (e.g., and, but, or, so, because).
h. Use determiners (e.g., articles, demonstratives).
i. Use frequently occurring prepositions (e.g., during, beyond, toward).
j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.

6.1.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
a. Capitalize dates and names of people.
b. Use end punctuation for sentences.
c. Use commas in dates and to separate single words in a series.
d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.

B. Vocabulary Acquisition and Use

6.1.B.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.
a. Use sentence-level context as a clue to the meaning of a word or phrase.
b. Use frequently occurring affixes as a clue to the meaning of a word.
c. Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).

6.1.B.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.
a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.
b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).
c. Identify real-life connections between words and their use (e.g., note places at home that are cozy).
d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings

6.1.B.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., I named my hamster Nibblet because she nibbles too much because she likes that).

RLA

Desired Outcomes and Indicators Grade 1 – Science & Engineering—Approved 2001

science

Compare and describe observable features of plants and animals and identify the relationship between observable features and basic needs for growth and survival.

3.K.E.1 Develop an awareness of the relationship of features of living things and their ability to satisfy basic needs that support their growth and survival.
- a. Make observations of the features and behaviors of many different kinds of animals with an environment to identify and begin building a list of some of the basic needs these organisms share, such as water, air, etc.
- b. Describe ways that people and other animals manage to bring the things they need from their environment into their bodies.
- c. Make observations of the features of many different kinds of plants within an environment to identify and begin building a list of some of the basic needs these organisms share, such as water, light, etc.
- d. Describe the way that most plants manage to bring water from the environment into the plant.

3.1.E.1 Describe some of the ways in which animals depend on plants and on each other.
- a. Examine organisms in a wide variety of environments to gather information on how animals satisfy their need for food.
  - Some animals eat only plants
  - Some animals eat only other animals
  - Some animals eat both plants and other animals

3.1.B.1 Describe evidence from investigations that living things are made of parts too small to be seen with unaided eye.
- a. Use magnifying instruments to observe parts of a variety of living things, such as leaves, seeds, insects, worms, etc. to describe (drawing or text) parts seen with the magnifier.
- b. Use information gathered from observations to compare the descriptions (drawings or text) of the different parts seen.
- c. Describe some of the ideas or questions that might result from examining organisms more closely.

3.1.B.2 Provide evidence that all organisms are made of parts that help them carry out basic functions of life.
- a. Gather information and direct evidence that humans and other animals have different body parts used to seek, find and take in food.
- b. Investigate and identify parts of the body that alert humans and other animals to danger and help them fight, hide or get out of danger.
- c. Describe some parts of plants and describe what they do for the plant.
- d. Respond, giving reasons to support the response, to the statement “All living things are made of parts.”

Describe and compare properties of natural and human-made materials, and identify how human activities affect the environment.

2.K.A.1 Investigate objects and materials in the environment.
- a. Observe and describe a variety of natural and human-made objects found in familiar environments (school, neighborhood, etc.)
- b. Examine and describe Earth materials.
- c. Using examples, describe that objects and materials, such as trees, rocks, and hills on Earth’s surface can change.

5.K.B.1 Describe that sunlight warms the land, air and water using observations and age appropriate tools.
- a. Recognize and describe temperature changes of the land, air, and water before and after the sun warms them using senses and thermometers.

4.K.A.1 Compare the observable properties of a variety of objects and the materials they are made of using evidence from investigations.
- a. Examine and describe various objects in terms of the materials, such as clay, cloth, paper, etc. from which they are made.
- b. Based on data, describe the observable properties, such as size, shape, color, and texture of a variety of objects.
- c. Identify and compare the properties of materials objects are made of and the properties of the objects.

6.K.B.1 Identify aspects of the environment that are made by humans and those that are not made by humans.
- a. Identify features of the natural environment, such as parks, zoos, building, etc., that are made by humans.
- b. Identify features of the natural environment that are not made by humans.

6.1.B.1 Recognize that caring about the environment is an important human activity.
- a. Recognize and describe that individual and group actions, such as recycling, help the environment.
- b. Recognize and describe that individual and group actions, such as littering, harm the environment.
- c. Give reasons why people should take care of their environments.

6.2.B.1 Recognize and describe that the activities of individuals or groups of individuals can affect the environment.
- a. Identify and describe that individual or group actions, such as turning off lights, conserving water, recycling, picking up litter, or joining an organization can extend the natural resources of the environment.
- b. Identify and describe that individual or group actions, such as leaving lights on, wasting water, or throwing away recyclables, can limit the natural resources of the environment.

Compare and describe how objects move and identify causes for the movement.

Desired Outcomes and Indicators Grade 1 – Science & Engineering—Approved 2001

5.K.A.1 Compare the different ways objects move.
- a. Given many different objects, make them move and describe and compare how they move.

5.K.A.2 Explain that there must be a cause for changes in the motion of an object.
- a. Observe and describe the ways in which a variety of objects' motion can be changed.
- b. Based on observations, identify what caused the changes in an object's motion.

Identify and describe the effect magnets have on objects.

5.K.C.3 Observe and gather information from explorations to describe how magnets affect some objects.
- a. Observe and describe what happens when magnets are placed on or near objects made of different materials.
- b. Raise and seek answers to questions about what happened to objects investigated and/or to the magnet.

5.1.C.3 Describe the effect magnets have on a variety of objects.
- a. Classify materials based on their behavior in the presence of a magnet.
- b. Describe how the magnet affects the behavior of objects within each group.

Identify sources and uses of electricity in daily life.

5.2.C.1 Identify and describe the sources and uses of electricity in daily life.
- a. Identify sources of electricity.
- b. Identify the devices that use electricity to produce light, heat and sound.

Desired Outcomes and Indicators Grade 1 – Social Studies—Approved 2001

Social Studies

Integrate ideas and information about relationships among rules, rights, and responsibilities to make effective decisions.

1.1.A.1. Explain the importance of rules.
- a. Explain how rules promote fairness, responsibility, and privacy in the school and community.
- b. Identify leadership positions in the school and community and recognize their authority in keeping students safe, following rules, and maintaining order.

1.1.C.1. Describe the rights and responsibilities of being a participating member of the family, school and neighborhood.
- a. Identify the rights, responsibilities and choices that students have in the family, school, and neighborhood.
- b. Demonstrate ways to work together to maintain a clean and safe home, school, and neighborhood environment.

Identify and describe people, symbols, and practices important to democratic principles associated with the United States of America.

1.1.A.2. Identify and discuss the meaning of symbols and practices associated with the United States of America.
- a. Identify and discuss the meaning of common symbols associated with the United States of America, such as bald eagle, White House, and the Statue of Liberty.
- b. Describe how actions, such as pledging allegiance to the American flag and singing "The Star-Spangled Banner" and "America" are associated with being a citizen.

1.1.B.1. Identify and describe people important to the American political system.
- a. Describe the contributions of people, past and present, such as George Washington, Abraham Lincoln, Martin Luther King, Jr. and the current president.
- b. Explain how contributions of people may be recognized with holidays and celebrations, such as Presidents' Day and Veterans' Day.

Compare similarities and differences in ways that people of different cultural backgrounds fulfill needs and wants and contribute to society.

2.1.A.1. Observe and describe ways that people of different cultural backgrounds meet human needs and contribute to the community.
- a. Observe and describe ways people in their school and community meet human needs for food, clothing, shelter, and other commonalities, such as recreation, music, and stories.
- b. Discuss and respect traditions and customs of families in the community.

2.1.B.1. Recognize that individuals and groups share and borrow from other cultures.
- a. Identify how families choose to share and borrow traditions from other cultures.

2.1.C.1. Explain how groups of people interact.
- a. Describe, discuss, and demonstrate appropriate social skills necessary for working in a cooperative group, such as sharing concern, care, and respect among group members.

3.1.C.1. Explain how transportation and communication link people and places by the movement of goods, messages, and people.
- a. Identify how transportation links people and goods between places.
- b. Explain how communication links people and messages between places.

3.1.D.1. Explain how people modify, protect, and adapt to their environment.
- a. Describe how people in a community modify their environment to meet changing needs for shelter, such as clearing land for a housing community.

Identify and describe how goods and services are made, distributed, and acquired.

4.1.A.1. Describe economic choices people make about goods and service.
- a. Identify and discuss goods and services provided in the community.
- b. Explain how getting something one wants may mean giving up something in return.

4.1.A.2. Describe the production process.
- a. Give examples of natural and human resources used in production, such as making butter, making ice cream, and building houses.
- b. Describe the skills people need for their work in the home, school, and community.

4.1.A.3. Explain how technology affects the way people live, work, and play.
- a. Describe how tools and products have affected the way people live, work, or play.

4.1.B.1. Describe types of markets in the community.
- a. Explain how markets operate.
- b. Identify markets in the local community, such as grocery stores, farmers' markets, toy stores, and fast food restaurants.

4.1.B.2. Describe how goods and services are acquired.
- a. Describe how people earn money by working at a job.
- b. Compare goods that have different values, such as same item at different stores.

Integrate ideas and information about geographic characteristics to identify how people modify and adapt to the environment.

Desired Outcomes and Indicators Grade 1 – Social Studies—Approved 2001

3.1.A.1. Use geographic tools to locate and describe places on Earth.
- a. Locate the continents and oceans using maps and a globe.
- b. Use photographs and pictures to describe a place.
- c. Identify a place using bird's eye view.
- d. Define map elements as parts of a map that make it easy to use.
- e. Describe where places are located on a map using relative distance and direction, such as near-far, above-below and cardinal directions (north, south, east, and west).

3.1.B.1. Describe places in the environment using geographic characteristics.
- a. Identify and describe physical characteristics of a place (physical features, climate, vegetation and animal life).
- b. Identify human characteristics of a place (human-made features, language, political system, how people make a living).
- c. Describe places by how people make a living and where they live.

3.1.D.1. Explain how people modify, protect, and adapt to their environment.
- b. Describe why and how people protect the environment.
- c. Explain how people adapt to changes in the environment, such as using less water in a drought.

Sort and classify events, people, and objects as belonging to the past or present.

5.1.A.2. Compare people and objects of today and long ago.
- a. Construct meaning from informational text and text features about the past.
- b. Collect and examine photographs of the past and compare with current photographs of similar images, such as old photographs of the school and community.

5.1.A.1. Examine differences between past and present time.
- a. Use terms related to time to order events sequentially that have occurred in the school.
- b. Classify events as belonging to past or present.

Desired Outcomes and Indicators Grade 2 – Art—Approved 2006

Art

Transform personal observations, memories, and imaginations into visual compositions.
I.2.2.a. Describe how artists use color, line, shape, texture, form, and space to represent what people, know, feel, and imagine.
I.2.2.b. Use color, line, shape, texture, form, and space to represent ideas visually from observation, memory, and imagination.
I.3.2.a. Identify how qualities of the elements of art and principles of design are used to communicate personal meaning in visual compositions.
II.2.2.b. Communicate a variety of reasons for creating artworks, i.e., feelings, experiences, events, places, ideas.
III.1.2.c. Create artworks that explore the elements of art: color, line, shape, texture, form, and the principles of design: pattern, repetition, contrast, and balance to express personal meaning.

Identify, describe, and represent living things, objects, places, and events in visual compositions.
I.1.2.a. Describe colors, lines, shapes, textures, forms, and space found in observed objects and the environment.
I.1.2.b. Represent observed physical qualities of people, animals, and objects in the environment using color, line, shape, texture, form, and space.
II.1.2.a. Observe works of art and describe how artists express ideas about people, places, and events.
II.1.2.b. Select and use works of art as inspiration to express ideas visually and verbally about people, places, and events.
II.2.2.a Interpret themes in artworks.
II.3.2.a Categorize selected artworks by theme, content, and form.
II.3.2.b Compare how selected artworks are similar in theme, content, and form.

Select, evaluate, and use multiple elements of art and principles of design to respond to artwork.
I.3.2.b. Select and use principles of design including: pattern, contrast, repetition, and balance to give personal meaning to visual compositions.
I.2.2.b. Use color, line, shape, texture, form, and space to represent ideas visually from observation, memory, and imagination.
I.3.2.a. Identify how qualities of the elements of art and principles of design are used to communicate personal meaning in visual compositions.
I.2.2.a. Describe how artists use color, line, shape, texture, form, and space to represent what people, know, feel, and imagine.
III.1.2.c. Create artworks that explore the elements of art: color, line, shape, texture, form, and the principles of design: pattern, repetition, contrast, and balance to express personal meaning.
III.2.2.b. Identify and use color, line, shape, texture, form, space, and selected principles of design: pattern, repetition, and contrast and balance in artworks.

Create artwork using appropriate processes and materials.
I.2.2.a. Describe how artists use color, line, shape, texture, form, and space to represent what people, know, feel, and imagine.
IV.1.2.a. Observe and describe the aesthetic qualities of teacher selected artworks, using art vocabulary to identify relationships between and among the elements of art: color, line, shape, texture, space, and form and selected principles of design: pattern, repetition, balance and contrast.
IV.1.2.b. Identify established criteria for judging the aesthetic qualities of artworks using the elements of art and selected principles of design.
IV.1.2.c. Use established criteria and art vocabulary to judge artwork.

Select, evaluate, and use multiple elements of art and principles of design to respond to artwork.
II.4.2.a Identify similarities between the visual arts and other content areas.
II.4.2.b. Describe skills and processes in the visual arts and other content areas used to express ideas.
II.4.2.c. Use processes common to the visual arts and other content areas to express ideas.
III.1.2.a. Experiment with art media, processes, and techniques and demonstrate a variety of ways they can be used to express meaning.
III.1.2.b. Safely manipulate and share art media and tools. Assist in cleaning tools, the workspace, and storage of materials.
III.2.2.a. Identify sources for ideas and procedures used to create artworks.

Desired Outcomes and Indicators Grade 2 – General Music—Approved 2006

music

Perform alone and in an ensemble: bordun, and sing with correct posture and intonation within an octave range.	
I.2.2.a	Sing an expanded range of pitches with appropriate vocal technique.
I.2.2.b	Sing a variety of songs and tonal patterns in tune.
I.2.2.c	Demonstrate proper playing technique for classroom instruments.
I.2.2.d	Perform a bordun to accompany a given melody.

Improvise a musical answer to a question, and create a rhythmic composition and an arrangement	
III.1.2.a	Use instruments to improvise simple rhythms or melodies.
III.1.2.b	Use the voice to improvise simple melodies.
III.2.2.b	Compose a simple rhythm pattern and notate it using iconic or standard notation.
III.2.2.a	Arrange “found” sounds and classroom instrument sounds to enhance a song.

Read and notate rhythm and pitch patterns and musical symbols on a five-line staff.	
I.4.2.a	Read simple rhythm and pitch patterns and musical symbols.
I.4.2.b	Notate simple rhythm patterns and pitches using a five-line staff.

Identify and describe orchestral families, multiple musical contrasts, meter and patriotic songs; self-monitor performances.	
I.1.2.a	Describe classification of classroom and orchestral instruments according to methods of sound production.
I.1.2.b	Perform music that includes contrasting and repeating sections.
I.1.2.c	Listen to and describe music that illustrates fast/slow, loud/soft, long/short, high/low.
I.3.2.d	Identify meter in aural music examples and show the meter through movement.
II.1.2.a	Describe how music is used in the home, school, and community.
II.1.2.b	Use musical terminology to describe music from a variety of world cultures.
II.2.2.a	Perform patriotic songs and explain their purpose.
IV.1.2.b	Listen to and describe two performances of the same selection of music.
IV.1.2.a	Evaluate classroom performances using given criteria.
IV.1.2.c	Identify criteria for their own or other’s performance appropriate audience behaviors.

Perform movements to demonstrate meter, steady beat, and movement sequences.	
I.3.2.a	Create simple movement patterns for music.
I.3.2.b	Move to demonstrate a steady beat in various meters with music sung or heard.
I.3.2.c	Perform sequences of movement in singing games.
I.3.2.d	Identify meter in aural music examples and show the meter through movement.

Desired Outcomes and Indicators Grade 2 – Health Education—Approved 2006

Health

Identify factors influencing decisions and describe strategies to stay safe.
1.2.A.1 Recognize appropriate methods of communication. a. Identify methods of communication appropriate for specific situations. b. Demonstrate appropriate methods of communication.
1.2.B.1 Examine emotions and responses to various situations. a. Demonstrate the meaning of emotion. b. Categorize other words that mean happy, upset, calm, and surprised.
1.2.D.1 Identify choices available in order to make a decision. a. Choose factors that influence making decisions.
1.2.E.1 Identify positive and negative character traits contributing to one's uniqueness. a. Describe positive character traits of friends. b. Explain how being a good friend demonstrates positive character. c. Identify positive and negative traits of characters in media.
1.2.F.1 Recognize the factors associated with stress experienced in the family. a. Describe examples of family stressors. b. Demonstrate reactions to stressful situations. c. Identify stress management skills and strategies.
2.2.A.1 Identify practices for using medicine safely. a. Describe rules for taking medicine safely.
2.2.E.1 Identify ways to say no to unsafe medicine/drug use. a. Distinguish between illegal drugs and medicine. b Demonstrate refusal skills to resist pressure to use drugs.
4.2.A.1 Identify how your family helps you and you help your family. a. Discuss how your family takes care of you, helps you mature, stay safe, and be responsible. b. Explain that roles and responsibilities of family members differ according to age.
5.2.A.1 Demonstrate the ability to respond appropriately to emergency situations. a. Model how to respond to an emergency in different situations.
5.2.B.1 Identify ways to stay safe outdoors. a. Discuss strategies to stay safe on a bike or skates by following traffic signs and wearing a helmet. b. Demonstrate the ability to play safely on playground equipment. c. Demonstrate the ability to stay safe around water. d. Plan how to stay safe in the sun.
5.2.D.1 Identify actions to stay safe from strangers. a. Describe procedures to follow when approached by a stranger in a variety of situations.
5.2.D.2 Describe actions to stay safe around familiar people. a. Discuss how familiar people can hurt or make children feel uncomfortable. b. Demonstrate how to access help from police, teacher, nurse, guidance counselor, and parent.
7.2.A.1 Describe disease. a. Define communicable diseases. b. Define non communicable disease.

Integrate health, nutrition, and physical activity information to promote personal health and well-being.
1.2.C.1 Identify components to promote personal well-being. a. Name two cooperation skills. b. Predict what it feels like to work cooperatively with others in a group.
2.2.B.1 Identify how tobacco use affects health. a. Discuss how tobacco use can become a habit. b. Summarize the benefits of not using tobacco.
2.2.C.1 Identify physical consequences of the use of alcohol.

a. Describe the short term effects of alcohol use on the body, for example blurred vision, lack of coordination, and slow reaction time.

3.2.A.1 Explain how to improve or maintain personal health.
a Describe behaviors to care for the health of eyes and ears.
b. Describe behaviors to promote overall body health, such as visiting the doctor, exercising, adequate nutrition, practicing hygiene, and avoiding hazards.

3.2.B.1 Identify health services available in the community.
a. List community resources that provide health care.
b. List reasons people might go to a hospital or clinic.
c. Describe health services available to you in a hospital or clinic.

3.2.C.1 Identify health issues created by pollution.
a. Identify types of pollution such as air, water, and waste.
b. List how the types of pollution affect your body and your health.

4.2.B.1 Describe the physical, social, mental growth processes.
a. Compare the differences between when you were a baby and now.
b. List something you can do now that you couldn't do a year ago.
c. Predict something you think you will be able to do next year that you can't do now.

6.2.D.1 Define nutrient.
a. List the six major nutrients: water, fat, vitamins, minerals, carbohydrates, and protein.
b. Name a food source for each nutrient.

6.2.E.2 Explain the relationship between personal fitness and a healthy lifestyle.
a. Discuss the importance of physical fitness and what it means to each individual.

6.2.F.1 Demonstrate that foods are categorized into groups.
a. Classify foods into groups according to *My Pyramid*.
b. Specify the number of servings recommended per day from each group.
c. Illustrate a serving from each food group.

6.2.F.2 Identify the Nutrition Facts Label.
a. Define the purpose of the Nutrition Facts Label.
b. Identify servings per container/package, calories and fat on a Nutrition facts label.

Desired Outcomes and Indicators Grade 2 – Information Literacy—MSDE

Info. Lit.

Demonstrate willingness to accept uncertainty by sharing ideas, asking, and answering questions to guide personal or content information need.
1.B.1 Identify an assigned or personal information need. a. Identify an assigned information need. b. Identify a personal information need. 1.B.2 Determine the scope of the information need. a. With guidance, use criteria to determine the scope of an information need. 1.B.3 Formulate and refine questions to meet an information need. a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need. 3.A.1 Use specific sources to find information. a. With guidance, identify keywords and text features that help find information within a specific source. b. With guidance, use keywords and text features to find information within a specific source. c. With guidance, use technology tools to find data/information within a specific source. 3.A.2 Evaluate the relevance of information within a source to meet the information need. a. With guidance, differentiate between fiction and nonfiction information within a specific source. b. With guidance, confirm that the information found within a specific source matches the information need.

Identify and describe attributes of fiction and nonfiction resources and sources to select best match for personal or content or information need.
2.A.1 Identify resources to meet the information need. a. With guidance, explore and identify human, print, online, and multimedia resources. b. With guidance, decide which resources best match an identified information need. 2.B.1 Locate and select sources to meet the information need. a. With guidance, identify the sections of the media center and the attributes of the sources located within each section. d. With guidance, select print, online, and multimedia sources that meet the information need. 6.A.2 Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need. a. Follow circulation procedures and policies in the media center. b. Browse and select literature and/or multimedia in a variety of genres.

Integrate, record, sort, and classify information from multiple sources in an ethical manner to create a product responding to personal or content information need.
2.B.2 Evaluate sources to meet the information need. b. With guidance, use text features effectively to select sources that meet the information need. 3.C.1 Record data/information in a variety of formats. a. Explain why it is necessary to record data/information to meet the information need. b. Express the different ways to organize information, (e.g., numerical order; parts to whole; categorize) c. Identify appropriate formats for organizing data/information. d. With guidance, use keywords to identify relevant information. e. With guidance, avoid plagiarism by copying relevant information word for word and keeping track of the source. f. Use technology to record and organize data/information. 3.C.2 Use an appropriate and accepted citation style to create a source list. a. Explain the purpose of giving credit to sources of information. b. Identify the elements of a citation, given the type of source (book; print encyclopedia; online encyclopedia; web site; databases; periodicals). c. With guidance, create a modified source list. 4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need. a. With guidance, identify the main idea of the recorded information. b. With guidance, compare recorded information to prior knowledge and make personal connections. c. Evaluate recorded information for relevance and completeness. e. Find and record missing or additional data/information. 4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need. a. With guidance, determine whether the recorded data/information is fact or opinion and use it appropriately to meet an information need. d. With guidance, make connections and inferences using prior knowledge and the recorded data/information. e. With guidance, summarize the recorded data/information.

Desired Outcomes and Indicators Grade 2 – Information Literacy—MSDE

4.B.1	From the recorded data/information, ethically generate new understandings and knowledge related to the information need.
	a. With guidance, integrate the recorded data/information from multiple sources.
	b. With guidance, draw conclusions from the recorded data/information to create new understandings.
5.A.1	Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
	a. With guidance, organize and display findings/conclusions in a variety of formats.
	b. With guidance, design layouts that communicate content effectively for intended audience.
	d. With guidance, use technology to present findings/conclusions in a variety of formats.

Generate ideas about relationships within fiction and nonfiction literature and real life.	
6.A.1	Identify relationships within fiction and nonfiction literature and real life.
	a. With guidance, read, listen to, view, and discuss literature that reflects personal interests, provides imagined experiences, and validates individual concerns and real experiences.
	b. Make literature-to-self, literature-to-literature, and literature-to-multimedia connections, and, with guidance, make literature-to-world connections.
	c. Read, listen to, view, and integrate information from non-fiction to appreciate fiction.
	d. Use literature to answer questions or solve problems.

Desired Outcomes and Indicators Grade 2 – Mathematics—Common Core Standards

Math

Demonstrate mathematical proficiency with addition and subtraction of whole numbers, including basic facts (sums to 20), to solve problems. Common Core Critical Areas: Building fluency with addition and subtraction.	
1.2.B.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
1.2.B.2	Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.
1.2.B.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
1.2.B.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
1.2.C.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
1.2.C.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.
1.2.C.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
1.2.C.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.
2.2.A.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems4 using information presented in a bar graph.

Identify and describe place value patterns and relationships to solve problems. Common Core Critical Areas: Extending understanding of base-ten notation.	
1.2.C.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
1.2.C.2	Count within 1000; skip-count by 5s, 10s, and 100s.
1.2.C.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
1.2.C.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
1.2.C.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

Integrate strategies and use appropriate tools to solve measurement problems involving length, time, and money. Common Core Critical Area: Using standard units of measure.	
2.2.A.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2.2.A.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
2.2.A.3	Estimate lengths using units of inches, feet, centimeters, and meters.
2.2.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
2.2.A.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
2.2.A.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
2.2.A.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
2.2.A.8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*
2.2.A.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

Describe and draw two- and three-dimensional shapes, and decompose two-dimensional shapes to build understanding of fractional relationships. Common Core Critical Area: Describing and analyzing shapes.	
3.2.A.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals,

	pentagons, hexagons, and cubes.
3.2.A.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
3.2.A.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Desired Outcomes and Indicators Grade 2 – Physical Education—Approved 2006

Phys. Ed

Demonstrate sequential application of movement cues to control body and equipment through different directions and pathways, and in relation to people to meet the challenges of the activity.
II.2.2 Identify static and dynamic balance concepts in relationship to movement.
IV.2.3 Recognize that skills will develop with practice over time.
IV.2.4 Recognize the importance of positive feedback on performance.
VI.2.1 Demonstrate fundamental movement skills.
VI.2.2 Develop creative movement skills.
VI.2.3 Demonstrate competency in skill themes.

Explain how and why body systems adapt to exercise and good nutrition for heart health.
I.2.1 Identify and demonstrate the effects of physical activity on the body systems.
I.2.3 Explore and distinguish between the components of fitness.
I.2.4 Investigate the benefits of physical activity.
I.2.5 Identify the relationship between nutrition and physical activity.
I.2.6 Recognize and examine the factors influencing exercise adherence.
V.2.1 Explore and examine individual aerobic capacity/cardio respiratory fitness.
a. Explore individual pulse points during various activities.
b. Explore process of counting resting heart rate.
c. Explain how different activities affect heart rate.

Identify the impact and justify the importance of rules on the movement setting.
III.2.2 Work effectively with others in physical activity settings.
III.2.3 Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.

Demonstrate goal setting, planning, persistence, and effective practice.
III.2.1 Recognize the relationship between effort and improvement.
III.2.4 Establish and modify personal physical activity goals while monitoring progress towards achievement.
IV.2.3 Recognize that skills will develop with practice over time.

Desired Outcomes and Indicators Grade 2 – Reading Language Arts—Common Core Standards

RLA

Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension.

C. Phonics and Word Recognition

1.2.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
- b. Know spelling-sound correspondences for additional common vowel teams.
- c. Decode regularly spelled two-syllable words with long vowels.
- d. Decode words with common prefixes and suffixes.
- e. Identify words with inconsistent but common spelling-sound correspondences.
- f. Recognize and read grade-appropriate irregularly spelled words.

D. Fluency

1.2.D.4 Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Read and comprehend literature in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range.

A. Key Ideas and Details

2.2.A.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

2.2.A.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.

2.2.A.3 Describe how characters in a story respond to major events and challenges.

B. Craft and Structure

2.2.B.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

2.2.B.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

2.2.B.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

C. Integration of Knowledge and Ideas

2.2.C.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

2.1.C.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

D. Range of Reading and Level of Text Complexity

2.2.D.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Read and comprehend informational text in the grades 2–3 text complexity band strategically, with scaffolding as needed at the high end of the range

A. Key Ideas and Details

3.2.A.1 Ask and answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in a text.

3.2.A.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

3.1.A.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

B. Craft and Structure

3.2.B.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.

3.2.B.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

3.2.B.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

C. Integration of Knowledge and Ideas

3.2.C.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

3.2.C.8 Describe how reasons support specific points the author makes in a text.

3.2.C.9 Compare and contrast the most important points presented by two texts on the same topic.

D. Range of Reading and Level of Text Complexity

3.2.D.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Write opinions, informational/explanatory text, and narratives with greater independence using writing processes and traits.

A. Text Types and Purposes

4.2.A.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.

4.2.A.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

4.2.A.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

B. Production and Distribution of Writing

4.2.B.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

4.2.B.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

C. Research to Build Knowledge

4.2.C.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

4.2.C.8 Recall information from experiences or gather information from provided sources to answer a question.

Listen and speak effectively to produce thoughts and ideas, and engage in discussions about grade-level appropriate topics and texts.

A. Comprehension and Collaboration

5.2.A.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

- a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- b. Build on others' talk in conversations by linking their comments to the remarks of others.
- c. Ask for clarification and further explanation as needed about the topics and texts under discussion.

5.2.A.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

5.1.A.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

B. Presentation of Knowledge and Ideas

5.2.B.4 Describe Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.

5.2.B.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

5.2.B.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 26 and 27 for specific expectations.)

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

A. Conventions of Standard English

6.2.A.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- a. Use collective nouns (e.g., *group*).
- b. Form and use frequently occurring irregular plural nouns (e.g., *feet, children, teeth, mice, fish*).
- c. Use reflexive pronouns (e.g., *myself, ourselves*).
- d. Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*).
- e. Use adjectives and adverbs, and choose between them depending on what is to be modified.
- f. Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy*).

6.2.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- a. Capitalize holidays, product names, and geographic names.

b. Use commas in greetings and closings of letters.
c. Use an apostrophe to form contractions and frequently occurring possessives.
d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).
e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

B. Knowledge of Language

6.2.B.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
a. Compare formal and informal uses of English.

C. Vocabulary Acquisition and Use

6.2.C.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 2 reading and content*, choosing flexibly from an array of strategies.
a. Use sentence-level context as a clue to the meaning of a word or phrase.
b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy*, *tell/retell*).
c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition*, *additional*).
d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).
e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.

6.2.C.5 Demonstrate understanding of word relationships and nuances in word meanings.
a. Identify real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*).
b. Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*).

6.2.C.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*).

RLA

Desired Outcomes and Indicators Grade 2 – Science & Engineering—Approved 2001

science

Identify, describe and compare a variety of organisms and their life cycles, and explain the relationships between the growth and survival of living things to a habitat.

3.3.B.1 Explore the world of minute living things to describe what they look like, how they live, and how they interact with their environment.
- a. Use magnifying instruments to observe and describe using drawings or text (oral or written) minute organisms, such as brine shrimp, algae, aphids, etc., that are found in different environments.
- b. Describe any observable activity displayed by these organisms.
- c. Provide reasons that support the conclusion that these organisms are alive.
- d. Use information gathered about these minute organisms to compare mechanisms they have to satisfy their basic needs to those used by larger organisms.

3.2.C.1 Explain that there are identifiable stages in the life cycles (growth, reproduction, and death) of plants and animals.
- a. Investigate and describe that seeds change and grow into plants.
- b. Compare and describe the changes that occur in humans during their life cycle (birth, newborn, child, adolescent, adult, elder).
- c. Given pictures of stages in the life cycle of a plant or an animal, determine the sequence of the stages in the life cycle.
- d. Provide examples, using observations and information from readings, that life cycles differ from species to species.

3.2.D.1 Observe and describe examples of variation (differences) among individuals of one kind within a population.
- a. Observe and describe individuals in familiar animal populations, such as cats or dogs, to identify how they look alike and how they are different.
- b. Examine pictures of organisms that lived long ago, such as dinosaurs, and describe how they resemble organisms that are alive today.
- c. Recognize that some kinds of organisms have completely disappeared.

3.2.F.1 Explain that organisms can grow and survive in many very different habitats.
- a. Investigate a variety of familiar and unfamiliar habitats and describe how animals and plants found there maintain their lives and survive to reproduce.
- b. Explain that organisms live in habitats that provide their basic needs. (food, water, air, shelter)

Identify and describe natural features found on Earth and compare properties of Earth materials.

2.3.C.1 Gather information and provide evidence about the physical environment, becoming familiar with the details of geological features, observing and mapping locations of hills, valleys, rivers, and canyons.
- a. Identify and describe some natural features of continents.
- b. Describe the natural features in their immediate outdoor environment, and compare the features with those of another region in Maryland.
- c. Identify and describe some natural features of the ocean floor.
- d. Recognize and explain that an ocean floor is land covered by water.

2.2.A.1 Describe and compare properties of a variety of Earth materials.
- a. Classify a collection of rocks based on the properties that distinguish one type from another.
- b. Collect soil from different locations and compare the properties of the samples.
- c. Use examples of observations from places around the school and neighborhood to describe ways Earth materials can change.

2.2.E.1 Recognize and describe that the surface of Earth is more than half covered with water.
- a. Identify the many locations where water is found.
- b. Describe the changes that occur to water found anywhere.

2.3.E.1 Recognize and describe that water can be found as a liquid or a solid on the Earth's surface and as a gas in the Earth's atmosphere.
- a. Describe that air is a substance that surrounds us and contains such things as oxygen, water vapor (gas), pollen, dust.
- b. Observe and explain what happens when liquid water disappears.

Identify and describe properties of and changes in celestial objects to explain patterns that occur over time.

2.2.D.1 Observe and describe changes over time in the properties, location and motion of celestial objects.
- a. Identify and record observable properties of the sun, moon and stars.
- b. Identify and record the apparent visible changes in the shape of the moon over two months of observations.
- c. Observe and record changes in the location of the sun and moon in the sky over time.
- d. Describe and compare the patterns of change that occur in the sun and the moon.

Identify and explain the properties of materials and the relationships between the parts and the whole.

4.2.A.1 Cite evidence from investigations that most things are made of parts.
- a. Examine a variety of objects, such as toys, objects made from Legos or Tinker Toys to identify and describe the parts from which they are made.
- b. Take objects apart and rearrange the parts to identify and describe the ways the parts work together.
- c. Ask and seek answers to "What if" questions about the changes made to the objects and how they affect the way objects work, for example, if a part were left out of

the object would it make a different in how the object works?

4.3.A.1 Identify ways to classify objects using supporting evidence from investigations of observable properties.
- a. Classify objects based on their observable properties.
- b. Provide reasons for placing the objects into groups.
- c. Compare classifications with those of others.

4.3.A.2 Identify and describe structures of objects too small to be seen clearly with the unaided eye.
- a. Identify and describe minute objects, such as grains of sand and crystals of salt after examining them with a magnifying instrument.
- b. Identify and describe the minute features of objects, such as the lines (grain) in a piece of wood and the fibers in a paper napkin after examining with a magnifying instrument.

Desired Outcomes and Indicators Grade 2 – Social Studies—Approved 2001

Social Studies

Identify and describe relationships among the fulfillment of rights and responsibilities and the development of democratic ideas and skills.

1.2.A.1. Explain how rules and laws are made and necessary to maintain order and protect citizens.
- a. Explain how school and community rules promote orderliness, fairness, responsibility, privacy, and safety.
- b. Identify leadership positions and organizations in the community and explain how they can be helpful in maintaining safety and order.

1.2.A.2. Explain how democratic skills and attitudes are associated with being a responsible citizen.
- a. Use appropriate informational text to develop an understanding of democratic skills and attitudes, such as rights and responsibilities, respect, fairness, honesty, loyalty, and courage.
- b. Connect certain people, symbols, songs and poems to the ideals they represent, such as George Washington portrays leadership, the American flag represents loyalty and respect, and the Star Spangled Banner represents courage and freedom.

1.2.B.1. Explain how contributions and events are important to the American political system.
- a. Describe the contributions of local government leaders and current leaders of their school and community, such as county executives, county council or mayor, and city council.
- b. Explain how contributions of people recognized in holidays, such as Memorial Day and Constitution Day, represent democratic beliefs and attitudes that include rights and responsibilities, loyalty, respect, and courage.

1.2.C.1. Describe the rights and responsibilities of being a participating member of the school and the community.
- a. Recognize and describe how making choices affects self, family, school, and community.
- b. Identify concerns in the community, such as safety issues and pollution problems and ways to resolve these concerns.

5.2.A.2. Describe people, places, and artifacts of today and long ago.
- a. Gather and interpret information about the past from informational sources and biographies.

Consider new and diverse ideas and multiple perspectives to infer and explain how people of different cultures meet needs.

2.2.A.1. Analyze elements of two different cultures and how each meets their human needs and contributes to the community.
- a. Use fiction and non-fiction to compare the elements of two different cultures, and how they meet their human needs for food, shelter, and other commonalities such as recreation, music, and stories.
- b. Explain ways people of different ages and/or cultural backgrounds can respect and help to pass on traditions and customs.

2.2.B.1. Explain that individuals and groups share and borrow from other cultures to form a community.
- a. Give examples of how families in the community share and borrow customs and traditions from other cultures.

2.2.C.1. Analyze ways in which people interact.
- a. Identify and demonstrate appropriate social skills necessary for working in a cooperative group, such as sharing concern, care, and respect among group members.
- b. Analyze how different points of view in school situations may result in compromise or conflict.

4.2.A.3. Examine how technology affects the way people live, work and play.
- a. Identify examples of technology used by consumers, such as automobiles, cameras, telephones, microwaves, televisions, and computers.
- b. Analyze why consumers use technology in their daily lives.

Integrate ideas and information about geographic characteristics to classify places and regions and describe how and why people modify and adapt to the environment.

3.2.A.1. Use geographic tools to locate and describe places on Earth.
- a. Identify the purpose and use of a globe and a variety of maps and atlases, such as school maps, neighborhood maps and simple atlases.
- b. Identify and use map elements, such as title, compass rose, simple grid system, legend/key, date, and author to interpret a map.
- c. Identify the equator, poles, seven continents, four oceans, and countries on a map and globe.
- d. Describe a place using bird's eye view, and satellite images, photographs, and pictures.

3.2.B.1. Classify places and regions in an environment using geographic characteristics.
- a. Identify natural/physical features and human made features using maps and photographs.
- b. Describe and classify regions using climate, vegetation, animal life, and natural/physical features.
- c. Classify places as rural and urban.
- d. Describe how geographic characteristics determine choices, such as climate guides decisions about food, clothing, and shelter.

3.2.D.1. Explain how people modify, protect, and adapt to their environment.
- a. Describe ways, such as clearing trees and farming land, that people modify their environment and \the impact of those modifications.
- b. Describe how and why people protect or fail to protect the environment.

c. Explain how people adapt to changes in the environment.

5.2.A.2. Describe people, places, and artifacts of today and long ago.
b. Collect and examine photographs of the past and compare with similar, current images, such as, photographs of modes of transportation and communication.

Identify and evaluate economic choices about production and distribution of goods.

3.2.C.1. Explain how transportation and communication link places by the movement of people, goods, and ideas.
a. Compare types of transportation used to move goods and people today and long ago.

4.2.B.1. Describe different types of markets.
a. Describe different market situations where buyers and sellers meet to exchange goods and services.
b. Describe how people meet in market communities around the world, such as farmers' markets and door-to-door sales.

4.2.B.2. Describe how consumers acquire goods and services.
a. Identify goods and services provided by businesses.
b. Identify goods and services provided by government.
c. Explain different ways to pay for goods and services, such as credit cards, checks, debit cards, and money orders.

4.2.A.2. Explain the production process.
a. Identify the natural, capital, and human resources used in the production of a good or service.
b. Identify examples of specialized workers in the school and community, such as nurses, truck drivers, lawyers, and postal workers.

4.2.A.1. Explain why people have to make economic choices about goods and services.
a. Identify and explain economic choices people make.
b. Identify and give examples of the positive and negative aspects of each choice.
c. Explain that choices have consequences, some of which are more important than others.

Organize events on timelines to identify and describe relationships.

5.2.A.1. Examine differences between past and present time.
a. Develop a personal timeline in each student's life.
b. Describe the relationship among events in a variety of timelines.

Desired Outcomes and Indicators Grade 3 – Art—Approved 2006

Art

Transform personal observations, memories, and imaginations into visual compositions.	
I.2.3.a	Compare how artists communicate what they see, feel, know, and imagine using art vocabulary.
I.2.3.b	Represent ideas and feelings visually and explain a personal response to what is seen, felt, known, or imagined.
I.3.3.a	Describe how qualities of the elements of art and principles of design are organized to communicate personal meaning in visual compositions.
I.3.3.b	Select and use elements of art and principles of design including pattern, contrast, repetition, balance rhythm/movement, and emphasis to give personal meaning to visual compositions.
III.1.3.c	Create artworks that explore the elements of art: color, line, shape, texture, form and value, and the principles of design: pattern/repetition, emphasis, contrast, balance, rhythm, and movement to express personal meaning.

Identify, describe, and/or symbolize living things, objects, places, ideas, and events in visual compositions.	
I.1.3.a.	Describe similarities and differences between the elements of art in observed forms.
I.1.3.b	Represent the relationships among people, animals, and objects in visual compositions using selected elements of art in various combinations.
II.1.3.a	Identify ways in which artists use symbols to express ideas about self, people, places, and events in selected works of art.
II.1.3.b	Select symbols that represent aspects of daily life to express meaning in visual compositions.
II.3.3.a	Compare how selected artworks are similar in theme, content, form, and style.
II.3.3.b	Identify attributes of theme, content, form, and style.

Create new visual compositions using the elements of art and principles of design.	
I.3.3.a	Describe how qualities of the elements of art and principles of design are organized to communicate personal meaning in visual compositions.
I.3.3.b	Select and use elements of art and principles of design including pattern, contrast, repetition, balance rhythm/movement, and emphasis to give personal meaning to visual compositions.
III.1.3.c	Create artworks that explore the elements of art: color, line, shape, texture, form and value, and the principles of design: pattern/repetition, emphasis, contrast, balance, rhythm, and movement to express personal meaning.
III.2.3.b	Organize the elements of art color, line, shape, texture, form, value, and selected principles of design: pattern, repetition, contrast, balance, emphasis, rhythm and movement to create artworks.

Select and appraise criteria to evaluate/critique and respond to artwork.	
I.3.3.a	Describe how qualities of the elements of art and principles of design are organized to communicate personal meaning in visual compositions.
IV.1.3.a	Express opinions about the aesthetic qualities of teacher selected artworks based upon the relationship between and among the elements of art: color, line, shape, texture, form, space, value and the principles of design: pattern, repetition, contrast, balance, emphasis, rhythm, and movement.
IV.1.3.b	Develop criteria for judging the aesthetic qualities of artworks using selected elements of art and principles of design.
IV.1.3.c	Use established criteria to judge works of art.

Select and adapt materials and processes in the creation of artwork.	
II.2.3.a	Identify techniques, processes, and materials from different times and places used to create visual art.
II.2.3.b	Describe the origins of selected techniques, processes, and materials used in the visual arts.
II.4.3.a	Identify similarities and differences between and among the visual arts and other content areas.
II.4.3.b	Compare skills and processes used in the visual arts and other content areas to express ideas.
II.4.3.c	Select and use visual arts processes and similar processes used in other content areas to express ideas.
III.1.3.a	Experiment with art media, processes, and techniques to generate ideas and express personal meaning.
III.1.3.b	Safely manipulate and share art media and tools.
III.2.3.a	Identify sources for ideas and describe the design steps used to create artworks.
III.3.3.a	Identify sources for ideas and procedures used to create artworks.

Desired Outcomes and Indicators Grade 3 – General Music—Approved 2006

music

Perform alone and in an ensemble: ostinato and sing two-part rounds with related tone and head voice.	
I.2.3.a	Sing using correct singing posture, and relaxed tone production.
I.2.3.b	Sing a varied repertoire of songs including two-part rounds.
I.2.3.d	Perform an ostinato to support a given melody.
I.2.3.c	Demonstrate proper playing technique for classroom instruments.
IV.1.3.c	Demonstrate audience behaviors that are respectful of the performers.

Improvise an answer to a melodic question, and create, arrange, and compose an ostinato.	
III.1.3.a	Use selected classroom instruments to improvise phrases that answer given rhythmic and melodic phrases in the same style (question and answer).
III.1.3.b	Use the voice to improvise phrases that answer given melodic phrases in the same style (question and answer).
III.2.3.a	Create an arrangement by choosing instruments for a given ostinato.
III.2.3.b	Compose and notate an ostinato.

Read to perform a melody using absolute pitches and notate musical patterns.	
I.4.3.a	Read simple melodies and interpret music symbols to perform a song.
I.4.3.b	Notate simple rhythm and/or pitch patterns.

Identify and describe musical forms, spirituals and their purpose, meter signatures, and multiple contrasts including articulation; evaluate performances.	
I.1.3.b	Identify musical forms containing contrast and repetition.
I.1.3.c	Describe musical sounds in terms of expressive qualities.
II.2.3.a	Perform spirituals and explain their use and significance.
IV.2.3.a	Evaluate their own and others' performances using given criteria.
I.3.3.d	Identify meter in a written musical example.
II.1.3.c	Listen to music examples from various world cultures and describe how musical elements are used.
II.2.3.b	Performs songs and dances from a variety of historical periods and world cultures, including some connected those connected to general classroom studies.

Perform movements to demonstrate conducting meter in two, traditional folk dances, and to communicate meaning.	
I.3.3.a	Perform improvised movement to communicate meaning or feeling in music.
I.3.3.b	Conduct music with meter in two.
I.3.3.c	Perform simple folk dances.

Desired Outcomes and Indicators Grade 3 – Comprehensive Health Education—Approved 2006

Health

Justify healthy decisions and practices promoting lifelong wellness.

1.3.A.1 Recognize different types of communication skills.
- a. Practice verbal and non-verbal methods of communication.

1.3.B.1 Recognize that emotions come from basic needs.
- a. Relate human needs to human emotions.

1.3.C.1 Identify the components to promote personal well-being.
- a. Identify and describe the emotional and physical human needs, such as shelter, food, water, and love.
- b. Identify and describe human social needs.
- c. Describe the social needs addressed by belonging to a group.
- d. Recognize the feelings of being excluded from a group.

1.3.D.1 Examine the steps of the decision-making process.
- a. Compare the difference between positive and negative consequences in age appropriate situations.

1.3.E.1 Identify positive and negative character traits that contribute to one's uniqueness.
- a. Select and model strategies to incorporate positive character traits.

2.3.A.1 Identify safe practices for using prescription and Over the Counter (OTC) drugs.
- a. Identify prescription and OTC drugs.
- b. Explain the importance of following directions when using medicines or other substances.
- c. List and describe appropriate uses for prescribed and OTC drugs.

2.3.B.1 Identify and examine physical consequences of the use of tobacco.
- a. Recognize that tobacco products contain nicotine.
- b. Identify forms of tobacco, such as smoke or smokeless.
- c. Describe the effects of tobacco use and non-use, including second-hand smoke, on the body.
- d. Demonstrate a personal commitment not to use tobacco.

2.3.D.1 Identify caffeine as a drug.
- a. List products that contain caffeine.
- b. Suggest alternative products which do not contain caffeine.

6.3.D.1 Identify and define functions of nutrients.
- a. Describe the six major nutrients and how the body uses them.
- b. Describe why the body needs water.

6.3.E.1 Demonstrate the relationship among food intake, physical activity, and weight management.
- a. Define healthy weight.
- b. Discuss factors that affect a person's weight, such as age, gender, height, family, society, activity level, and illness.
- c. Illustrate the importance of balancing food intake with physical activity.

6.3.F.2 Analyze the Nutrition Facts Label.
- a. Identify the information provided on the Nutrition Facts Label.
- b. Explain why the Nutrition Facts Label is a valid source of information.
- c. Compare the relationship between serving size and servings per container.

6.3.G.1 Identify and describe body image.
- a. Define body image.
- b. Explain how internal and external influences impact body image.

6.3.I.1 Apply information using the My Pyramid to choose a healthy breakfast.
- a. Apply the My Pyramid, including the food groups, number of servings, and serving sizes to breakfast choices.
- b. Explain the importance of breakfast in relation to a healthy body.
- c. Create a breakfast menu using My Pyramid.

7.3.A.1 Identify diseases as communicable.
- a. Discuss communicable disease.
- b. Identify examples of communicable diseases such as, common cold, strep throat, flu, and others.
- c. Explain the importance of prevention or early detection and treatment of disease.

7.3.A.2 Identify diseases as non communicable.
- a. Discuss non-communicable disease.

b. Identify exams testing for the presence of non-communicable disease such as allergies, asthma, and others.

7.3.A.3 Compare parasitic diseases.
- a. Identify parasites such as lice and ticks.
- b. Identify conditions/diseases caused by parasites.
- c. Illustrate strategies to prevent parasitic diseases.

Formulate a personal safety plan.

1.3.F.1 Recognize the factors associated with stress experienced in school.
- a. Describe examples of school stressors.
- b. Discuss symptoms of stress.
- c. Apply strategies to reduce stress in school.

4.3.A.1 Identify what makes a healthy family.
- a. Recognize the different relationships within the family, such as parent/child and sibling/sibling.
- b. Identify ways your family members show they care for each other.
- c. List ways families can resolve conflicts, such as family meetings, parent involvement, and talking things out.

5.3.A.1 Demonstrate the ability to respond appropriately to emergency situations.
- a. Identify different emergency situations.
- b. Demonstrate basic first aid for small cuts and scrapes, blisters, mild burns, choking, sunburn, and nosebleeds.

5.3.A.2 Demonstrate the ability to access emergency services.
- a. Categorize procedures for reporting an emergency, such as telephone 911 and/or contact an adult.

5.3.A.3 Demonstrate the ability to respond appropriately to situations that do not require emergency services.
- a. Plan what to do in situations not requiring the use of emergency services, for example locked out of house, transportation issues, missed bus, parents not showing, or others.

5.3.C.1 Identify teasing and bullying as harassment and their effects on the individual.
- a. Differentiate between teasing and bullying.
- b. Recognize examples of teasing and bullying, such as isolation, name calling and other verbal assaults, and pushing and other physical assaults.
- c. Examine the effects of teasing and bullying from the perspective of the bully and the bullied.

5.3.C.2 Describe and demonstrate the difference between telling and tattling.
- a. Create role play situations for telling and tattling.

Desired Outcomes and Indicators Grade 3 – Information Literacy—MSDE

Info. Lit.

Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model.

1.A.1 Follow an inquiry process and connect the process to real life.
- a. With guidance, identify the inquiry process used in the school.
- b. With guidance, provide examples of how the process can be used in real life.
- c. With guidance, follow the inquiry process used in the school for an assigned information need.

1.B.1 Identify an assigned or personal information need.
- a. Identify an assigned information need.
- b. Identify a personal information need.

1.B.3 Formulate and refine questions to meet an information need.
- a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need.
- b. With guidance, identify which formulated questions are researchable.

Select and appraise multiple sources of information and make adjustments to meet challenges of personal or content information need.

2.A.1 Identify resources to meet the information need.
- a. With guidance, explore and identify human, print, online, and multimedia resources.
- b. With guidance, decide which resources best match an identified information need.

2.B.1 Locate and select sources to meet the information need.
- a. With guidance, identify the sections of the media center and the attributes of the sources located within each section.
- b. With guidance, use the media center's catalog to locate sources to meet the information need.
- c. With guidance, apply knowledge of search strategies to locate relevant sources.
- d. With guidance, select print, online, and multimedia sources that meet the information need.

2.B.2 Evaluate sources to meet the information need.
- a. With guidance, evaluate sources based on currency, authority, and relevance to select sources that best meet the information need.
- b. With guidance, use text features effectively to select sources that meet the information need.

Justify recorded information gathered from multiple sources for relevance and completeness and transform recorded information in an ethical manner to create a new product responding to personal or content information need.

3.A.1 Use specific sources to find information.
- b. With guidance, use keywords and text features to find information within a specific source.
- c. With guidance, use technology tools to find data/information within a specific source.

3.A.2 Evaluate the relevance of information within a source to meet the information need.
- b. With guidance, confirm that the information found within a specific source matches the information need.

3.C.1 Record data/information in a variety of formats.
- a. Explain why it is necessary to record data/information to meet the information need.
- b. Express the different ways to organize information, (e.g., numerical order; parts to whole; categorize).
- c. Identify appropriate formats for organizing data/information.
- d. With guidance, use keywords to identify relevant information.
- e. With guidance, avoid plagiarism by copying relevant information word for word and keeping track of the source.
- f. Use technology to record and organize data/information.

3.C.2 Use an appropriate and accepted citations style to create a source list.
- a. Explain the purpose of giving credit to sources of information.
- b. Identify the elements of a citation given the type of source (book; print encyclopedia; online encyclopedia; web site; databases; periodicals).
- c. With guidance, create a modified source list.

4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need.
- c. Evaluate recorded information for relevance and completeness.
- d. With guidance, check recorded data/information to ensure the information product will contain data/information from multiple sources.
- e. Find and record missing or additional data/information.

4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need.
- c. With guidance, identify and analyze patterns within the recorded data/information to create categories.
- d. With guidance, make connections and inferences using prior knowledge and the recorded data/information.

e. With guidance, summarize the recorded data/information.

4.B.1 From the recorded data/information, ethically generate new understandings and knowledge related to the information need.
- a. With guidance, integrate the recorded data/information from multiple sources.
- b. With guidance, draw conclusions from the recorded data/information to create new understandings.
- c. Explain the conclusion drawn from the recorded data/information.

5.A.1 Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
- a. With guidance, organize and display findings/conclusions in a variety of formats.
- b. With guidance, design layouts that communicate content effectively for intended audiences.
- d. With guidance, use technology to present findings/conclusions in a variety of formats.
- e. With guidance, edit/review/revise/practice the presentation of the information product.

Demonstrate intellectual freedom by selecting and using fiction and non-fiction literature, digital, and multimedia.

6.A.2 Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need.
- a. Follow circulation procedures and policies in the media center.
- b. Browse and select literature and/or multimedia in a variety of genres.

6.B.1 Connect literature and multimedia to learning.
- b. With guidance, defend literature and/or multimedia choices.

Desired Outcomes and Indicators Grade 3 – Mathematics—Common Core Standards

Math

Develop, demonstrate, and justify efficient strategies for multiplication and division, including multiplication facts (products to 81), and solve problems involving the four operations. **Common Core Critical Area: Developing understanding of multiplication and division and strategies for multiplication and division within 100.**	
1.3.B.1	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*
1.3.B.2	Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*
1.3.B.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
1.3.B.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = ☐ ÷ 3, 6 × 6 = ?.*
1.3.B.5	Apply properties of operations as strategies to multiply and divide.2 *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*
1.3.B.6	Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*
1.3.B.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
1.3.B.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
1.3.B.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*
1.3.C.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
1.3.C.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
1.3.C.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
2.3.A.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

Select and demonstrate multiple representations of fractions and equivalent fractions, and compare fractions by reasoning about their size. **Common Core Critical Area: Developing understanding of fractions, especially unit fractions (fractions with numerator 1).**	
1.3.D.1	Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*.
1.3.D.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line. b. Represent a fraction *a*/*b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.
1.3.D.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.* d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
2.3.A.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Apply strategies to solve measurement problems, including area and perimeter. **Common Core Critical Area: Developing Understanding of the structure of rectangular arrays and of area.**

2.3.A.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
2.3.A.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
2.3.A.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
2.3.A.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
2.3.A.7	Relate area to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non overlapping parts, applying this technique to solve real world problems.
2.3.A.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Describe, compare, and analyze properties of two-dimensional shapes. **Common Core Critical Area: Describing and analyzing two-dimensional shapes.**	
3.3.A.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
3.3.A.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

Desired Outcomes and Indicators Grade 3 – Physical Education—Approved 2006

Phys. Ed

Demonstrate application of movement skills to send, receive, and dribble equipment through different levels and pathways.
II.3.1 Identify target vocabulary within Newton's Laws of Motion. b. Identify different types of forces. c. Explore external and internal forces. II.3.2 Identify the difference between *static* and *dynamic balance*. IV.3.3 Show that skills will develop with practice over time. (i.e., throwing, catching, kicking, striking). IV.3.4 Recognize the importance of self evaluation and feedback in the improvement of motor skills. a. Develop a self awareness to assess skills. c. Recognize specific cues to perform the skill. VI.3.1 Demonstrate fundamental movement skills. VI.3.3 Demonstrate competency in skill themes.

Demonstrate rhythmic movement that combines formation, tempo, sequence, and performance of locomotor skills.
II.3.2 Identify the difference between *static* and *dynamic balance*. IV.3.4 Recognize the importance of self evaluation and feedback in the improvement of motor skills. a. Develop a self awareness to assess skills. c. Recognize specific cues to perform the skill. VI.3.1 Demonstrate fundamental movement skills. a. Combine locomotor and non-locomotor skills into a movement pattern. • Speed • Force • Flow • Pathways • Directions • Levels • Space VI.3.2 Develop creative movement skills.

Identify relationships among the components of the FITT Formula and health-related fitness components, including methods for monitoring heart rate to determine appropriate levels of aerobic activity.
I.3.1 Explain and demonstrate the effects of physical activity on the body systems. b. Identify and demonstrate how the components of the cardiovascular system respond to exercise. I.3.2 Adapt components of the FITT principle to adjust levels of physical activity. I.3.3 Recognize and identify the components necessary to design a fitness plan. I.3.4 Investigate the benefits of physical activity. V.3.1 Recognize individual aerobic capacity/cardio respiratory fitness. V.3.2 Examine and compare individual muscular strength and muscular endurance. V.3.3 Examine and compare individual flexibility.

Create rules collaboratively to promote responsibility for self and others.
III.3.2 Work effectively with others in physical activity settings. III.3.3 Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.

Develop a plan to achieve a desired goal.
III.3.1 Recognize the relationship between effort and improvement. III.3.4 Establish and modify personal physical activity goals while monitoring progress towards achievement. IV.3.3 Show that skills will develop with practice over time. (i.e., throwing, catching, kicking, striking).

Desired Outcomes and Indicators Grade 3 – Reading Language Arts—Common Core Standards

RLA

Apply grade-level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension.

C. Phonics and Word Recognition

1.3.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- a. Identify and know the meaning of the most common prefixes and derivational suffixes.
- b. Decode words with common Latin suffixes.
- c. Decode multisyllable words.
- d. Read grade-appropriate irregularly spelled words.

D. Fluency

1.3.D.4 Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Read and comprehend literature at the high end of the grades 2–3 text complexity band strategically and independently.

A. Key Ideas and Details

2.3.A.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

2.3.A.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.

2.3.A.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

B. Craft and Structure

2.3.B.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

2.3.B.5 Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.

2.3.B.6 Distinguish their own point of view from that of the narrator or those of the characters.

C. Integration of Knowledge and Ideas

2.3.C.7 Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).

2.3.C.9 Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

D. Range of Reading and Level of Text Complexity

2.3.D.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.

Read and comprehend informational text at the high end of the grades 2–3 text complexity band strategically and independently.

A. Key Ideas and Details

3.3.A.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

3.3.A.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.

3.3.A.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

B. Craft and Structure

3.3.B.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

3.3.B.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

3.3.B.6 Distinguish their own point of view from that of the author of a text.

C. Integration of Knowledge and Ideas

3.3.C.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how

key events occur).
3.3.C.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
3.3.C.9 Compare and contrast the most important points and key details presented in two texts on the same topic.

D. Range of Reading and Level of Text Complexity
3.3.D.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

Write increasingly complex opinions, informative/explanatory text, and narratives using writing processes and traits.

A. Text Types and Purposes
4.3.A.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.
- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- b. Provide reasons that support the opinion.
- c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- d. Provide a concluding statement or section.

4.3.A.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
- b. Develop the topic with facts, definitions, and details.
- c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
- d. Provide a concluding statement or section.

4.3.A.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
- b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
- c. Use temporal words and phrases to signal event order.
- d. Provide a sense of closure.

B. Production and Distribution of Writing
4.3.B.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
4.3.B.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3 on pages 28 and 29.)
4.3.B.6 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

C. Research to Build Knowledge
4.3.C.7 Conduct short research projects that build knowledge about a topic.
4.3.C.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

D. Range of Writing
4.3.D.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Listen and speak effectively to initiate and engage in discussions about grade-level appropriate topics and texts.

A. Comprehension and Collaboration
5.3.A.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- d. Explain their own ideas and understanding in light of the discussion.

5.3.A.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

5.3.A.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

B. Presentation of Knowledge and Ideas

5.3.B.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

5.3.B.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

5.3.B.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

A. Conventions of Standard English

6.3.A.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
b. Form and use regular and irregular plural nouns.
c. Use abstract nouns (e.g., *childhood*).
d. Form and use regular and irregular verbs.
e. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
f. Ensure subject-verb and pronoun-antecedent agreement.*
g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
h. Use coordinating and subordinating conjunctions.
i. Produce simple, compound, and complex sentences.

6.3.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

a. Capitalize appropriate words in titles.
b. Use commas in addresses.
c. Use commas and quotation marks in dialogue.
d. Form and use possessives.
e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

B. Knowledge of Language

6.3.B.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.

a. Choose words and phrases for effect.*
b. Recognize and observe differences between the conventions of spoken and written standard English.

C. Vocabulary Acquisition and Use

6.3.C.4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content,* choosing flexibly from a range of strategies.

a. Use sentence-level context as a clue to the meaning of a word or phrase.
b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

6.3.C.5 Demonstrate understanding of word relationships and nuances in word meanings.

a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).
b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).

6.3.C.6 Acquire and use accurately grade-appropriate conversational, general academic, and domain specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).

RLA

Desired Outcomes and Indicators Grade 3 – Science & Engineering—Approved 2001

science

Identify and explain interactions and relationships between living things and the natural environment.
3.3.E.1 Recognize that materials continue to exist even though they change from one form to another. a. Identify and compile a list of materials that can be recycled. b. Identify what happens to materials when they are recycled. c. Observe and record the sequence of changes that occur to plants and animals that die and decay. d. Ask and develop possible answers to questions about what happens to the materials that living things are made of when they die. 3.2.F.1 Explain that organisms can grow and survive in many very different habitats. a. Investigate a variety of familiar and unfamiliar habitats and describe how animals and plants found there maintain their lives and survive to reproduce. b. Explain that organisms live in habitats that provide their basic needs. c. Explain that animals and plants sometimes cause changes in their environments.

Identify and describe Earth's natural resources and infer how they impact human decisions.
6.2.A.1 Recognize and explain how Earth's natural resources from the natural environment are used to meet human needs. a. Describe natural resources as something from the natural environment that is used to meet one's needs. b. Identify water, air, soil, minerals, animals, and plants as basic natural resources. c. Explain that food, fuels, and fibers are produced form basic natural resources. d. Identify ways that humans use Earth's natural resources to meet their needs. e. Explain that some of natural resources are limited and need to be used wisely.

Infer and explain through investigations how physical processes can affect an object's properties.
4.3.C.1 Provide evidence from investigations to describe the effect that changes in temperature have on the properties of materials. a. Based on data gathered from investigations, identify and describe the changes that occur to the observable properties of materials when different degrees of heat is applied to them, such as melting chocolate pieces, boiling an egg. b. Observe and describe the changes cooling causes to the observable properties of materials when they are cooled, such as freezing water in a straw, milk in an ice cream maker. c. Cite examples of similar changes that heating and cooling have on the observable properties of various other materials. 4.2.B.1 Provide evidence from investigations that things can be done to materials to change some of their properties. a. Based on evidence from investigations describe that materials, such as clay are not changed by certain actions, such as reshaping or breaking into pieces. b. Ask and seek answers to questions about what happened to the materials if other things were done to them, such as being placed in a freezer, heated, etc. 4.2.D.1 Provide evidence from investigations to identify processes that can be used to change physical properties of materials. a. Based on investigations, describe what changes occur to the observable properties of various materials when they are subjected to the processes of wetting, cutting, bending and mixing. b. Compare the observable properties of objects before and after they have been subjected to various processes. c. Ask and seek answers to "what if" questions about what might happen to the materials if different processes, such as heating, freezing and dissolving were used to change them.

Explain and justify based on investigations how a force is required to change an object's motion.
5.3.A.1 Cite evidence from observations to describe the motion of an object using position and speed. a. Describe the position of an object by locating it relative to another object or to its background. b. Using information from multiple trials, compare the speeds (faster or slower) of objects that travel the same distance in different amounts of time. c. Using information from multiple trials, compare the distances that objects moving at different speeds travel in the same amount of time. 5.3.A.2 Explain that changes in the ways objects move are caused by forces. a. Observe and describe the way an object's motion changes in a variety of situations (rolling a ball, bouncing a ball, dropping a yo-yo, winding up a toy, etc.) and identify what may have caused the change. b. Describe changes in the motion of objects as they move across different textured surfaces and suggest possible causes for the change. c. Observe and describe that objects fall to the ground unless something holds them up (gravity).

Identify and describe relationships between heat energy and objects.
5.2.B.1 Identify and describe ways in which heat can be produced. a. Recognize that things that give off light also give off heat.

	b. Describe methods of producing heat.
	c Identify fuels that are used to produce light and heat in homes and schools.
5.3.B.1	Recognize and describe that heat is transferred between objects that are different temperatures.
	a. Recognize and describe that the temperature of an object increases when heat is added and decreases when heat is removed.
	b. Recognize and describe that heat will flow between objects at different temperatures until they reach the same temperature.

Desired Outcomes and Indicators Grade 3 – Social Studies—Approved 2001

Social Studies

Infer and explain meaning of democratic principles and practices associated with being a responsible citizen within the United States.

1.3.A.2. Explain how certain practices are connected with the democratic principles (skills, attitudes, and dispositions) of being a citizen.
- a. Identify and explain democratic principles, such as individual rights and responsibilities, patriotism, common good, justice and equality.
- b. Describe practices such as voting, following rules, volunteering, and recognizing national holidays associated with democratic principles.

1.3.C.1 Explain the rights and responsibilities of being a member of the school and the community.
- a. Describe the responsibilities of being an effective citizen, such as cleaning up your neighborhood, being informed, obeying rules and laws, participating in class decisions, and volunteering.

Identify and describe relationships among people, decision-making, and events that lead to the development of supportive communities.

1.3.A.1. Explain the role of individuals and groups in creating rules and laws to maintain order, protect citizens, and provide services.
- a. Identify local government leaders, such as the mayor, county council members or commissioners, and county executive and explain their role in protecting citizens and maintaining order.
- b. Explain the consequences of violating rules and laws.
- c. Describe the selection process and duties of local officials who make, apply, and enforce laws through government.

1.3.B.1. Explain how people and events have contributed to the American political system.
- a. Describe the contributions of local government leaders such as county executives, county council, mayor and city council.
- b. Describe the contributions of people who contributed to the common good of society.

1.3.B.2. Analyze the role of individual and group participation in creating a supportive community.
- a. Explain the decision making process used to accomplish a community goal or solve a community problem.
- b. Explain the roles and responsibilities of effective citizens in a political process.
- c. Describe the actions of people who have made a positive difference in their community, such as community and civic leaders, and organizations.

2.3.A.1. Analyze and describe elements of a multicultural setting.
- b. Explain how and why media such as the internet, television, radio, and newspaper provide an opportunity to understand various perspectives about cultures.

2.3.C.1. Analyze how groups of people interact.
- a. Identify and demonstrate appropriate social skills necessary for working in cooperative groups such as using concern, compassion, and respect among group members.
- b. Explain how different points of view in school and community situations may result in compromise or conflict.

Identify relationships among the production, distribution, and consumption of goods and services.

3.3.C.1. Describe how transportation and communication networks link places through the movement of people, goods, and ideas.
- a. Explain how transportation and communication networks connect places, people, and ideas.
- b. Identify reasons for the movement of people from one community or region to another.

4.3.A.2. Examine the production process.
- a. Explain how producers make choices because of limited natural, human, and capital resources.
- b. Give examples of when limited resources affect the decisions producers make.
- c. Describe steps in the production process to produce a product.
- d. Explain how specialized work results in increased production.

4.3.A.3. Examine how technology affects the way people live, work, and play.
- a. Describe how changes in technology have affected the lives of consumers, such as UPC bar codes, and online shopping.
- b. Describe how changes in technology have affected lives of producers, such as robot-powered assembly lines.

4.3.B.1. Describe different types of markets.
- a. Identify markets that are not face-to-face meetings, such as Internet shopping or catalog shopping.
- b. Describe how countries around the world trade in the global market.

4.3.B.2. Identify goods and services provided by the government and paid for by taxes.
- a. Classify goods and services according to who produces them, such as the government, business, or both.

4.3.B.3. Describe how consumers acquire goods and services.
- a. Develop a budget indicating income and expenses.
- b. Develop a plan that shows how money is obtained, such as selling things, getting a gift, and getting allowance.

4.3.A.1. Explain that people must make choices because resources are limited relative to unlimited wants for goods and services.
- a. Explain why people must make economic choices.

b. Identify and apply the steps in the decision-making process.
c. Identify the opportunity cost of a choice or decision.

Infer and explain characteristics of different cultures.

2.3.A.1. Analyze and describe elements of a multicultural setting.
- a. Use fiction and non-fiction to compare the elements of several cultures and how they meet their human needs for clothing, food, shelter, recreation, education, stories, art, music, and language.

2.3.B.1. Identify and describe how individuals and groups share and borrow from other cultures.
- a. Use non-fiction texts to identify and discuss examples of how communities borrow and share from other cultures.

3.3.D.1. Explain how people modify, protect and adapt to their environment.
- a. Describe how people in a community modify their environment to meet changing needs for transportation, shelter and making a living.
- b. Describe why and how people make decisions about protecting the environment.
- c. Compare ways that people adapt to the environment for food, clothing, and shelter.

5.3.A.2. Investigate how people lived in the past using a variety of sources.
- a. Collect and examine information about people, places, or events of the past using pictures, photographs, maps, audio or visual tapes, and or documents.
- b. Compare family life in the local community by considering jobs, communication, and transportation.

5.3.A.1. Examine differences between past and present time.
- a. Develop a timeline of events in the community.
- b. Explain the relationship among events in a variety of timelines.

Compare places and regions using geographic characteristics.

3.3.A.1. Use geographic tools to locate and construct meaning about places on Earth
- a. Describe the purposes of a variety of maps and atlases, such as transportation, physical, and political maps.
- b. Construct and interpret maps by using elements, such as title, compass rose, simple grid system, scale, legend/key, date, and author.
- c. Identify and describe the location of communities, major cities in Maryland, United States and the world using a globe, maps, and atlases.

3.3.B.1. Compare places and regions around the world using geographic characteristics.
- a. Compare places and regions using geographic features.
- b. Identify natural/physical and human-made features of places and regions.
- c. Describe population distribution of places and regions such as rural and urban.
- d. Describe how geographic characteristics of places and regions change over time and influence the way people live and work.

3.3.C.1. Describe how transportation and communication networks link places through the movement of people, goods, and ideas.
- a. Explain how transportation and communication networks connect places, people, and ideas.
- b. Identify reasons for the movement of people from one community or region to another.

3.3.D.1. Explain how people modify, protect and adapt to their environment.
- c. Compare ways that people adapt to the environment for food, clothing, and shelter.

Desired Outcomes and Indicators Grade 4 – Art—Approved 2006

Art

Represent point of view, mood, meaning, thoughts, and feelings through visual compositions.	
I.1.4.b	Represent relationships among observed people, animals, and objects, in a composition by selecting and using the elements of art to achieve specific effects.
I.2.4.a	Compare and describe how artists communicate point of view and mood using art vocabulary.
I.2.4.b	Create and describe artworks that communicate point of view and mood.
I.3.4.a	Describe how the elements of art and principles of design are used to communicate personal meaning in a composition.
I.3.4.b	Select and use elements of art and principles of design including pattern, contrast, repetition, balance, rhythm/movement, emphasis, variety, harmony/unity, and proportion to give personal meaning to a visual composition.
II.1.4.a	Analyze selected works of art and describe how different artists express ideas and feelings about human experience.
II.1.4.b	Describe the process used to select ideas, images, and forms to express meaning in visual compositions.
III.1.4.c	Create artworks that explore the elements of art: color, line, shape, texture, form, value and space, and selected principles of design: pattern, repetition, contrast, rhythm, movement, balance, and unity to express personal meaning.

Identify, compare, and represent different times and cultures in visual compositions.	
II.2.4.a	Identify techniques, technologies, processes, and materials from different times and places used to create visual art.
II.3.4.b	Describe attributes of theme, content, form, and style in selected artworks of different times and cultures.
II.4.4.a	Identify themes in art that relate to content explored in other subjects.

Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions.	
I.1.4.a	Analyze ways that the elements of art are used to represent visual and tactile texture, and movement in artworks.
I.1.4.b	Represent relationships among observed people, animals, and objects, in a composition by selecting and using the elements of art to achieve specific effects.
I.3.4.a	Describe how the elements of art and principles of design are used to communicate personal meaning in a composition.
I.3.4.b	Select and use elements of art and principles of design including pattern, contrast, repetition, balance, rhythm/movement, emphasis, variety, harmony/unity, and proportion to give personal meaning to a visual composition.
II.1.4.b	Describe the process used to select ideas, images, and forms to express meaning in visual compositions.
III.1.4.c	Create artworks that explore the elements of art: color, line, shape, texture, form, value and space, and selected principles of design: pattern, repetition, contrast, rhythm, movement, balance, and unity to express personal meaning.
III.2.4.a	Identify the elements of art and selected principles of design, i.e., pattern, repetition, balance, variety and unity in artworks.
III.2.4.b	Organize the elements of art: color, line, shape, texture, form, value, and space and selected principles of design: pattern, repetition, contrast, rhythm, movement, balance, and unity to create artworks in response to what is observed or seen.

Integrate and justify critique criteria to evaluate and respond to artwork.	
II.3.4.a	Compare selected artworks to determine similarities and differences in theme, content, form, and style.
IV.1.4.a	Critique the aesthetic qualities of teacher selected artworks using criteria derived from the elements of art: color, line, shape, texture, form, value and space, and selected principles of design: pattern, repetition, emphasis, contrast, rhythm, movement, balance, variety, proportion, and harmony/unity.
IV.1.4.b	Describe the aesthetic qualities of artworks in terms of the elements of art and principles of design.
IV.1.4.c	Use established criteria to justify personal responses to works of art.
IV.2.4.a	Describe the aesthetic qualities of personal artworks and the artworks of others.
IV.2.4.b	Interpret artworks to establish criteria for making judgments.
IV.2.4.c	Apply criteria to the assessment of personal artworks and the artworks of others.

Select and adapt materials and processes in the creation of artwork.	
II.2.4.a	Identify techniques, technologies, processes, and materials from different times and places used to create visual art.
II.2.4.b	Describe the origins of selected technologies, processes, and materials used in the visual arts.
II.4.4.b	Describe processes used in art and other disciplines to express ideas.
II.4.4.c	Use selected visual art processes to interpret and express ideas in art and other disciplines.
III.1.4.a	Experiment with art media, processes, and techniques to express thoughts and feelings that have personal meaning.
III.1.4.b	Safely manipulate and share art media and tools.
III.3.4.a	Describe the sources accessed for ideas and the procedures used to create artworks.

Desired Outcomes and Indicators Grade 4 – General Music—Approved 2006

music

Perform alone and in an ensemble: rhythmic and melodic ostinati, and sing with variations of dynamics and tempi using breath management.	
I.2.4.d	Perform accurately rhythmic and melodic ostinatos while other students sing or play contrasting parts.
I.2.4.c	Practice proper playing technique for instruments from diverse cultures.
I.2.4.e	Exhibit appropriate performance behavior.
IV.2.4.c	Demonstrate audience behaviors that are respectful of the performers.
I.1.4.c	Listen to and perform music with changes in expressive qualities.
I.2.4.a	Sing, demonstrating variations of dynamics and tempi with proper breath management.
I.2.4.b	Sing a varied repertoire of songs including 3-part rounds.

Improvise a complimentary melody and create, notate, and arrange a melodic composition for classroom instruments.	
III.1.4.a	Improvise simple rhythmic variations and melodic embellishments on familiar melodies using classroom instruments.
III.1.4.b	Use the voice to improvise simple rhythmic variations and melodic embellishments on familiar melodies.
III.2.4.b	Compose and notate simple melodies using a given rhythm.
III.2.4.a	Create an arrangement by choosing instruments for a given ostinato.

Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural rhythm using rhythmic dictation.	
I.4.4.a	Read and perform a simple melody on the treble staff using solfeggio or a comparable system.
I.4.4.b	Notate a short rhythmic phrase from dictation using standard notation.
I.4.4.c	Notate short improvised melodies on the treble staff, using standard notation.

Identify and analyze phrases, modes, and music from North American cultures; evaluate performances.	
I.1.4.b	Identify contrasting and repeating phrases within a given section of music.
I.1.4.d	Distinguish between major and minor versions of the same melody presented aurally.
IV.2.4.a	Develop criteria and apply them to the evaluation of their own and others' performances.
IV.2.4.b	Identify differences in two performances of the same selection of music.
II.1.4.c	Describe how musical elements are used in aural examples from various North American cultures.
II.1.4.d	Identify and describe roles of musicians in North America.
I.1.4.a	Listen to and identify voices as children's, adult male, and adult female.
II.3.4.a	Compare in two or more arts how the characteristic materials of the art form (sound in music, movement in dance) can be used to transform similar events, emotions, or ideas into works of art.
II.2.4.c	Listen and describe examples of music that represent musical styles and traditions from various historical periods and world cultures.

Perform movements to demonstrate traditional folk dances, conduct with meter in three and four, and demonstrate musical characteristics.	
I.3.4.b	Conduct music with meter in three and four.
I.3.4.c	Perform singing games and traditional dances from a variety of world cultures.
I.3.4.a	Create appropriate movement to demonstrate perception of musical characteristics.
II.2.4.b	Perform songs and dances from a variety of historical periods and world cultures, including some connected to general classroom studies.

Desired Outcomes and Indicators Grade 4 – Health Education—Approved 2006

Health

Determine how to prevent as well as respond to emergency and non-emergency situations.
1.4.A.1 Recognize effective communication skills. a. Identify verbal and non-verbal methods of communication. b. Demonstrate healthy ways to communicate needs, wants, emotions, opinions, and information. 1.4.B.1 Describe how emotions influence behaviors. a. Demonstrate the ability to modify emotional responses. b. Compare helpful and harmful emotional responses. 5.4.A.1 Demonstrate the ability to respond appropriately to emergency situations. a. Distinguish between emergency and non-emergency situations and identify appropriate responses. b. Identify situations and settings that place an individual at personal risk. c. Analyze risky situations and identify ways to avoid them. 5.4.B.1 Identify safety rules that will prevent injury or accidents in specific situations. a. Explain the safety rules for use of electricity. b. Develop a fire evacuation plan. c. Summarize the four steps of gun safety, including stop, don't touch, leave the area, and tell an adult. 5.4.C.1 Identify harassment as a form of violence. a. Define harassment. b. Discuss the effects of harassment on personal well-being. c. Plan strategies to respond to harassment. 5.4.D.1 Identify abuse and assault as a form of violence. a. Define abuse and assault. b. Explain the effects of abuse and assault on personal well-being. c. Develop strategies to respond to abuse and assault. 5.4.D.2 Assesses and respond to situations that threaten personal safety and may result in abuse (physical, emotional, verbal, and sexual). a. Identify threatening situations. b. Create a list of trusted people and/or community resources to notify/contact if assault or abuse occurs.

Select and appraise well-being components, strategies, and resources that influence development of personal wellness plans.
1.4.C.1 Summarize the components that promote personal well-being. a. Describe components of personal well-being, identified as spiritual, physical, intellectual, emotional/mental, social, and environmental. b. Relate components of personal well-being to personal life situations and why they are important. c. Explore ways community, family, and school contribute to liking self. 1.4.D.1 Examine the steps in the decision-making process. a. Explain how decisions are influenced by individuals, families, and communities. b. Compare variations of the decision-making process. 1.4.E.1 Utilize strategies to demonstrate care, consideration, and respect for self and others. a. Develop strategies for making and keeping friends. 1.4.F.1 Recognize the factors associated with stress experienced in the community. a. Identify sources of stress in the community. b. Describe ways to manage social stressors. c. Model effective strategies for stress management. 2.4.C.1 Identify and examine physical consequences of alcohol use. a. Differentiate the amount of ethanol in various alcoholic beverages, such as beer, wine and liquor. b. Describe the short and long -term effects of alcohol use and non-use on the body. 3.4.B.1 Locate resources that provide valid health information concerning consumer health issues and services. a. Identify the health services available in the school and community. b. Analyze various media messages for valid health information. c. Identify advertising techniques used in different media sources to sell health products. d. Identify and recognize product label information.

6.4.D.1 Identify and define functions of nutrients.
- a. Describe how nutrients in foods contribute to health.
- b. Investigate why the body needs calcium.
- c. Summarize why the body needs vitamins and minerals.

6.4.E.1 Demonstrate the relationship among food intake, physical activity, and weight management.
- a. Define calorie.
- b. Explain how caloric intake impacts exercise.
- c. Describe caloric output during exercise.

6.4.E.2 Explain the relationship between nutrition and physical activity.
- a. Identify components of physical fitness, including muscular endurance, muscular strength, cardio respiratory endurance, flexibility, and body composition
- b. Explain the effect of nutrition on the five fitness components, including cardiovascular endurance, flexibility, muscular endurance, muscular strength, and body composition.

6.4.F.1 Summarize the Dietary Guidelines for Americans.
- a. Explain each of the Dietary Guidelines.
- b. Identify factors that influence food choices.
- c. Compare personal food choices to the Dietary Guidelines.

6.4.F.2 Analyze the Nutrition Facts Label.
- a. Examine the Nutrition Facts Label to locate specific components.
- b. Compare nutrient information on a variety of food labels.

6.4.G.1 Analyze influences on body image.
- a. Examine how the media/advertising portrays positive and negative body images.

Desired Outcomes and Indicators Grade 4 – Information Literacy—MSDE

Info. Lit.

Plan and formulate questions based on personal or content information need to demonstrate use of an inquiry model.
1.A.1 Follow an inquiry process and connect the process to real life.
c. With guidance, follow the inquiry process used in the school for an assigned information need.
1.B.2 Determine the scope of the information need.
a. With guidance, collaboratively create, refine, and use criteria to determine the scope of an information need.
1.B.3 Formulate and refine questions to meet an information need.
a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need.
b. Collaboratively, identify which formulated questions are researchable.

Justify appropriate format for recording and organizing information from multiple sources.
2.A.2 Use safe practices when online.
a. Identify and follow school/school system computer use rules.
b. With guidance, identify safe and unsafe online practices.
2.B.1 Locate and select sources to meet the information need.
a. With guidance, identify the sections of the media center and the attributes of the sources located within each section.
b. With guidance, use the media center's catalog to locate sources to meet the information need.
c. With guidance, apply knowledge of search strategies to locate relevant sources.
d. With guidance, select print, online, and multimedia sources that meet the information need.
2.B.2 Evaluate sources to meet the information need.
a. With guidance, evaluate sources based on currency, authority, bias, and relevance to select sources that best meet the information need.
b. With guidance, use text features effectively to select sources that meet the information need.
3.A.1 Use specific sources to find information.
c. With guidance, use technology tools to find data/information with a specific source.
3.C.1 Record data/information in a variety of formats.
a. Explain why a specific format is being used to record data/information to meet the information need.
b. Identify significant characteristics of various organizational formats (e.g., alphabetical; chronological; part to whole; general to specific; main idea and supporting details; compare/contrast; cause and effect; categorizing).
c. Determine an appropriate format to record and organize data/information.
d. Use keywords to identify relevant information.
e. Avoid plagiarism by copying relevant information word for word and keeping track of the source.
f. Use technology to record and organize data/information.

Determine how to act on recorded information gathered from multiple sources and transform recorded information in an ethical manner to create a new product responding to personal or content information need.
3.C.2 Use an appropriate and accepted citation style to create a source list.
a. Explain the purpose of giving credit to sources of information.
b. Identify and define the components of a citation given the type of source (book; print encyclopedia; online encyclopedia; Web site; databases, periodicals).
c. Create a source list using an accepted citation style.
4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need.
c. Evaluate recorded information for relevance, completeness, and, with guidance, accuracy and discrepancies.
d. Check recorded information to ensure the information product will contain data/information from multiple sources.
e. Find and record missing or additional data/information.
4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need.
b. With guidance, identify point of view within the recorded data/information.
e. Summarize and paraphrase the recorded data/information.
4.A.3 Apply ethical practices to the evaluation and analysis of the recorded data/information.
a. Explain why ideas, words, images, music (all forms of data/information) are intellectual property and must be cited in a source list.
c. With guidance, identify possible alternative interpretations applicable to the recorded data/information.
d. With guidance, use technology to support critical thinking skills and problem-solving strategies to meet the information need.
4.B.1 From the recorded data/information, ethically generate new understandings and knowledge related to the information need.

a. With guidance, integrate the recorded data/information from multiple sources.
b. Draw conclusions from the recorded data/information to create new understandings.

5.A.1 Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
a. With guidance, organize and display findings/conclusions in a variety of formats.
b. With guidance, design layouts that communicate content effectively for intended audiences.
c. Apply appropriate practices related to content and layout of the information product.
d. With guidance, use technology to present findings/conclusions in a variety of formats.
e. With guidance, edit/review/revise/practice the presentation of the information product.
f. Discuss and apply fair use, copyright laws, and creative commons attributions.

Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.

6.A.2 Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need.
a. Follow circulation procedures and policies in the media center and other libraries.
b. Browse and select literature and/or multimedia in a variety of genres.

6.B.1 Connect literature and multimedia to learning.
b. Defend literature and/or multimedia choices.
c. With guidance, explain why intellectual freedom is important and what we must do to preserve it.

Desired Outcomes and Indicators Grade 4 – Mathematics—Common Core Standards

Math

Integrate ideas about place value, patterns, and properties to demonstrate fluency with whole number operations (addition, subtraction, and multiplication), and develop understanding of multi-digit whole number division, to solve problems. **Common Core Critical Area: Developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends.**	
1.4.B.1	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
1.4.B.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
1.4.B.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
1.4.B.4	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
1.4.B.5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*
1.4.C.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.
1.4.C.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
1.4.C.3	Use place value understanding to round multi-digit whole numbers to any place.
1.4.C.4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.
1.4.C.5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
1.4.C.6	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
2.4.A.1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*
2.4.A.2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
2.4.A.3	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Integrate ideas about whole number operations, place value, and fraction equivalence to develop understandings about decimal notation for fractions, and solve problems involving addition and subtraction of fractions (like denominators) and multiplication of fractions by whole numbers. **Common Core Critical Area: Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers.**	
1.4.D.1	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
1.4.D.2	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
1.4.D.3	Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.* c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.

	d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
1.4.D.4	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction *a*/*b* as a multiple of 1/*b*. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).* b. Understand a multiple of *a*/*b* as a multiple of 1/*b*, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)* c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*
1.4.D.5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.4 *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*
1.4.D.6	Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*
1.4.D.7	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.
2.4.A.4	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Classify two-dimensional figures by properties of lines and angles, and solve problems involving symmetry and angle measure. **Common Core Critical Area: Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, particular angle measures, and symmetry.**	
2.4.A.5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
2.4.A.6	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
2.4.A.7	Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.
3.4.A.1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
3.4.A.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
3.4.A.3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Desired Outcomes and Indicators Grade 4 – Physical Education—Approved 2006

Phys. Ed

Demonstrate and combine movement skills to react to the position of moving and stationary people and objects to perform a variety of manipulative skills in dynamic, game-like settings.
II.4.1 State and define Newton's Laws of Motion.
b. Identify forces that impact movement.
II.4.2 Demonstrate static and dynamic movement patterns.
a. Examine factors that influence static balance positions while maintaining balance.
b. Examine factors that influence dynamic balance in a variety of physical activities.
IV.4.3 Show that skills will develop with practice over time. (i.e., throwing, catching, kicking, striking).
IV.4.4 Recognize the importance of self-evaluation and feedback in the improvement of motor skills.
VI.4.1 Demonstrate fundamental movement skills.
VI.4.3 Demonstrate proficiency in skill themes.

Demonstrate a rhythmic movement that integrates formation, tempo, sequence, and performance of locomotor and non-locomotor skills.
IV.4.4 Recognize the importance of self-evaluation and feedback in the improvement of motor skills.
VI.4.1 Demonstrate fundamental movement skills.
a. Perform locomotor and non-locomotor skills while varying movement conditions.
VI.4.2 Develop creative movement skills.

Identify, calculate, and monitor heart rate to determine appropriate levels of aerobic activity.
I.4.1 Analyze and demonstrate the effects of physical activity on the body systems.
I.4.3 Recognize and identify the components necessary to design a fitness plan.
V.4.1 Examine and compare individual cardio respiratory fitness.
a. Examine various levels of intensities through activity and the effect on heart rate.
b. Define resting heart rate, target heart rate, and maximum heart rate.

Combine and apply health-related fitness components into the FITT Formula to identify a challenging and achievable personal physical activity goal.
I.4.1 Analyze and demonstrate the effects of physical activity on the body systems.
I.4.2 Adapt components of the FITT principle to adjust levels of physical activity.
I.4.3 Recognize and identify the components necessary to design a fitness plan.
III.4.1 Recognize the relationship between *effort* and improvement.
III.4.4 Establish and modify personal physical activity goals while monitoring progress towards achievement.
IV.4.1 Recognize how individuals progress through learning states at various rates through participating in a variety of activities.
IV.4.3 Show that skills will develop with practice over time. (i.e., throwing, catching, kicking, striking).
V.4.2 Examine and compare individual muscular strength and muscular endurance.
a. Identify and participate in developmentally appropriate muscular strength and muscular endurance activities.
b. Classify and differentiate between muscular strength and muscular endurance activities.
c. Identify and demonstrate a muscular strength that identifies a specific muscle group.
V.4.3 Examine and compare individual *flexibility*.
a. Identify and participate in developmentally appropriate activities to maintain and enhance flexibility.
c. Classify stretches with appropriate muscles or muscle groups.

Create and justify rules collaboratively to promote responsibility for self and others.
III.4.2 Work effectively with others in physical activity settings.
III.4.3 Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.

Desired Outcomes and Indicators Grade 4 – Reading Language Arts—Common Core Standards

RLA

Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension.

C. Phonics and Word Recognition

1.4.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

D. Fluency

1.4.D.4 Read with sufficient accuracy and fluency to support comprehension.
- a. Read on-level text with purpose and understanding.
- b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Read and comprehend literature in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range.

A. Key Ideas and Details

2.4.A.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

2.4.A.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.

2.4.A.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

B. Craft and Structure

2.4.B.4 Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).

2.4.B.5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.

2.4.B.6 Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

C. Integration of Knowledge and Ideas

2.4.C.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

2.4.C.9 Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

D. Range of Reading and Level of Text Complexity

2.4.D.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Read and comprehend informational text in the grades 4–5 text complexity band strategically, with scaffolding as needed at the high end of the range.

A. Key Ideas and Details

3.4.A.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

3.4.A.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.

3.4.A.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

B. Craft and Structure

3.4.B.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

3.4.B.5 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

3.4.B.6 Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

C. Integration of Knowledge and Ideas

3.4.C.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

3.4.C.8 Explain how an author uses reasons and evidence to support particular points in a text.

3.4.C.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

D. Range of Reading and Level of Text Complexity

3.4.D.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Write routinely over extended time frames and shorter time frames and shorter time frames for a range of discipline specific tasks, purposes, and audience using processes and traits.

A. Text Types and Purposes

4.4.A.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.
- b. Provide reasons that are supported by facts and details.
- c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
- d. Provide a concluding statement or section related to the opinion presented.

4.4.A.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Provide a concluding statement or section related to the information or explanation presented.

4.4.A.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.
- c. Use a variety of transitional words and phrases to manage the sequence of events.
- d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
- e. Provide a conclusion that follows from the narrated experiences or events.

B. Production and Distribution of Writing

4.4.B.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

4.4.B.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4 on pages 28 and 29.)

4.4.B.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

C. Research to Build Knowledge

4.4.C.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

4.4.C.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

4.4.C.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
- a. Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").
- b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").

D. Range of Writing

4.4.D.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Listen and speak effectively when analyzing grade-level appropriate topics and texts.

A. Comprehension and Collaboration

5.4.A.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.
- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions and carry out assigned roles.

c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

5.4.A.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

5.4.A.3 Identify the reasons and evidence a speaker provides to support particular points.

B. Presentation of Knowledge and Ideas

5.4.B.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

5.4.B.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

5.4.B.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 on pages 28 and 29 for specific expectations.)

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively

A. Conventions of Standard English

6.4.A.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
a. Use relative pronouns (who, whose, whom, *which, that*) and relative adverbs (*where, when, why*).
b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.
d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).
e. Form and use prepositional phrases.
f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.*
g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).*

6.4.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
a. Use correct capitalization.
b. Use commas and quotation marks to mark direct speech and quotations from a text.
c. Use a comma before a coordinating conjunction in a compound sentence.
d. Spell grade-appropriate words correctly, consulting references as needed.

B. Knowledge of Language

6.4.B.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
a. Choose words and phrases to convey ideas precisely.*
b. Choose punctuation for effect.*
c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

C. Vocabulary Acquisition and Use

6.4.C.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content,* choosing flexibly from a range of strategies.
a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*).
c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

6.4.C.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
b. Recognize and explain the meaning of common idioms, adages, and proverbs.
c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).

6.4.C.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).

Desired Outcomes and Indicators Grade 4 – Science & Engineering—Approved 2001

science

Formulate generalizations about how and why organisms are able to survive in particular environments.

3.4.A.1 Explain how animals and plants can be grouped according to observable features.
- a. Observe and compile a list of a variety of animals or plants in both familiar and unfamiliar environments.
- b. Classify a variety of animals and plants according to their observable features and provide reasons for placing them into different groups.
- c. Given a list of additional animals or plants, decide whether or not they could be placed within the established groups or does a new group have to be added.
- d. Describe what classifying tells us about the relatedness among the animals or plants within any group.

3.5.A.1 Explain the idea that in any particular environment, some kinds of plants and animals survive well, some less well, and some cannot survive at all.
- a. Identify and describe features and behaviors of some of the plants and animals living in a familiar environment and explain ways that these organisms are well suited to their environment.
- b. Based on information about features and behaviors of animals and plants from very different environments describe reasons that they might not survive if their environment changed or if they were moved from one environment to another.
- c. State reasons why certain animals such as whales, salmon, could not survive in the Chesapeake Bay.
- d. Research the kind of environment needed by the Maryland blue crab, the Black-eyed Susan (Maryland's state flower), or another Maryland native organism.
- e. Explain that the survival of individual organisms and entire populations can be affected by sudden (flood, Tsunami) or slow (global warming, air pollution) changes in the environment.

3.4.D.1 Explain that individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.
- a. Describe ways in which organisms in one habitat differ from those in another habitat and consider how these differences help them survive and reproduce.
- b. Explain that the characteristics of an organism affect its ability to survive and reproduce.
- c. Examine individuals in a group of the same kind of animals or plants to identify differences in characteristics, such as hearing ability in rabbits or keenness of vision in hawks that might give those individuals an advantage in surviving and reproducing.
- d. Examine and compare fossils to one another and to living organisms as evidence that some individuals survive and reproduce.

Integrate information and ideas regarding interactions of plants and animals, basic needs for survival and the environment to create an ecosystem.

3.4.E.1 Recognize food as the source of materials that all living things need to grow and survive.
- a. Classify the things that people and animals take into their bodies as food or not food.
- b. Describe what happens to food that people and other animals eat.
- c. Identify the things that are essential for plants to grow and survive.

3.5.E.1 Recognize that some source of energy is needed for all organisms to grow and survive.
- a. Identify the Sun as the primary source of energy for all living organisms.
- b. Cite evidence from observations and research that insects and various other organisms depend on dead plant and animal material for food.
- c. Provide examples that justify the statement "Most all animals' food can be traced back to plants."

3.4.F.1 Explain ways that individuals and groups of organisms interact with each other and their environment.
- a. Identify and describe the interactions of organisms present in a habitat.
- b. Explain that changes in an organism's habitat are sometimes beneficial to it and sometimes harmful.

Determine and critique how human behaviors and decisions influence the environment.

6.4.B.1 Recognize and describe that people in Maryland depend on, change, and are affected by the environment.
- a. Identify and describe that human activities in a community or region are affected by environmental factors.

6.5.B.1 Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.
- a. Identify and describe personal and community behaviors that waste natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.
- b. Identify and describe that individuals and groups assess and manage risk to the environment differently.

6.5.B.2 Recognize and describe that consequences may occur when Earth's natural resources are used.
- a. Explain how human activities may have positive consequences on the natural environment.
- b. Explain how human activities may have a negative consequence on the natural environment.
- c. Identify and describe that an environmental issue affects individuals and groups differently.

Consider moving to 4th grade from 5th grade:

6.5.A.1 Recognize and explain how renewable and nonrenewable natural resources are used by humans to meet basic needs.
- a. Identify and compare Maryland's renewable resources and nonrenewable resources.
- b. Describe how humans use renewable natural resources: plants, soil, water, animals

c. Describe how humans use nonrenewable natural resources: oil, coal, natural gas, minerals, including metals

Formulate generalizations about processes that continually change the Earth's surface by examining weather, rock formation and fossils.

2.5.E.1 Recognize and describe that the amount of water on Earth continues to stay the same even though it may change from one form to another.
- a. Describe how water on Earth changes.
- b. Explain that the sun is the main source of energy that causes the changes in the water on Earth.
- c. Describe the relationship between the amount of energy from the sun and the quantity of water that is changed.
- d. Describe the processes that maintain a continuous water cycle.

2.4.E.2 Recognize and describe that each season has different weather conditions.
- a. Describe different seasonal weather conditions using data collected from weather instruments, models or drawings.
- b. Compare average daily temperatures during different seasons.
- c. Compare average daily wind speed and direction during different seasons.
- d. Compare average daily precipitation during different seasons.

2.4.A.2 Recognize and explain how physical weathering and erosion cause changes to Earth's surface.
- a. Investigate and describe how weathering wears down Earth's surface.
- b. Cite evidence to show that erosion shapes and reshapes the Earth's surface as it moves Earth's materials from one location to another.

2.5.A.2 Cite and describe the processes that cause rapid or slow changes in Earth's surface.
- a. Identify and describe events such as tornadoes, hurricanes, volcanic eruptions, earthquakes, and flooding which change surface features rapidly.
- b. Recognize that the natural force of gravity causes changes in Earth's surface features as it pulls things toward Earth, as in mud and rock slides, avalanches, etc.
- c. Cite examples that demonstrate how the natural agents like wind, water, and ice produce slow changes on the Earth's surface such as carving out deep canyons and building up sand dunes.

2.5.A.3 Explain how rock is formed from combinations of different minerals and that smaller rocks come from the breakage and weathering of bedrock (solid rock underlying soil components) and larger rocks: soil is made partly from weathered rock, partly from plant remains – and also contains many living organisms.
- a. Observe and classify a collection of minerals based on their physical properties.
- b. Identify components of a variety of rocks and compare the physical properties of rocks with those of minerals to note major differences.
- c. Describe ways that the following processes contribute to changes always occurring to the Earth's surface.

2.4.B.2 Recognize and explain that fossils provide evidence about the plants and animals that lived long ago and about the nature of the environment at that time.
- a. Recognize and explain that the remains or imprints of plants or animals can become fossils.
- b. Describe the physical structures of and animal or plant based on its fossil remains.
- c. Identify what an animal or plant fossil is able to tell about the environment in which it lived.

Formulate generalizations about matter through investigations to explain structures, changes, and conservation of matter.

4.4.A.1 Provide evidence to support the fact that matter has observable and measurable properties.
- a. Identify examples of matter.
- b. Describe and compare the physical properties of samples of matter.
- c. Compare samples of like materials using appropriate tools to measure, estimate, and calculate size, capacities, masses and weights.
- d. Cite evidence that supports the statement, "All matter takes up space and contains a certain amount of material."

4.5.B.1 Cite evidence to support the statement that, "No matter how many parts of an object are assembled, the mass of the whole object made is always the same as the sum of the parts."
- a. Use magnifying instruments to investigate samples of matter, such as a leaf, sugar cube, color photograph, and granite to describe the minute parts from which they are made.
- b. Use evidence from investigations with a variety of materials, such as water to describe how matter can change from one form to another without the loss of any mass.
- c. Describe the relationship between the masses of whole objects to the sum of the weight of their parts using appropriate tools to gather supporting data.

4.5.C.1 Provide evidence from investigations to identify the processes that can be used to change materials from one state of matter to another.
- a. Observe and describe the changes heating and cooling cause to the different states in which water exists.
- b. Based on data explain the importance of water's ability to exist in all three states within the temperatures normally found on Earth.
- c. Analyze data from observations to support the idea that when materials change from one state to another the amount of material stays the same.

4.5.D.1 Provide evidence to illustrate that when a new material is made by combining two or more materials, its properties are different from the original materials.
- a. Investigate and describe what happens to the properties of materials when several materials are combined to make a mixture, such as table salt and pepper; various nuts, chocolate pieces and coconut; sugar dissolved in milk.
- b. Based on observations from investigations and video technology, describe what happens to the observable properties of materials when several materials are

combined to make a new material, such as: Baking soda combined with vinegar.

c. Share data gathered and construct a reasonable explanation of the results.

Desired Outcomes and Indicators Grade 4 – Social Studies—Approved 2001

Social Studies

Select, evaluate, and use information to describe roles and responsibilities of individuals, groups, and government in Maryland and the United States of America.
1.4.A.1. Trace how the political structure in early Maryland developed and changed over time. b. Explain the importance of the Office of the Governor and the Court of Appeals. c. Outline the structure and function of the Maryland General Assembly and the roles of state senators and delegates.
1.4.A.2. Analyze the documents, and democratic ideas that developed in the Maryland. b. Describe how the Maryland State Constitution includes democratic principles and values.
1.5.A.2. Analyze the historic events, documents, and practices that are the foundations of our political systems. a. Explain and report on the early examples of self-government, such as the Mayflower Compact and the House of Burgesses.
1.4.A.3. Analyze the role of Maryland government regarding public policy and issues. a. Analyze perspectives and policies in Maryland regarding historic and current public issues. b. Explain the effect that regional interests have on shaping government policy in and around Maryland, such as Chesapeake Bay issues, availability of land for mining, land use.
1.4.B.2. Defend the importance of civic participation as a citizen of Maryland. a. Identify various sources of information that are available to citizens to make political decisions. b. Analyze ways people can participate in the political process including voting, petitioning elected officials, and volunteering.
1.5.B.2. Analyze the importance of civic participation as a citizen of the United States. a. Analyze the usefulness of various sources of information used to make political decisions. b. Compare ways people can participate in the political process including voting, petitioning elected officials, and volunteering.
1.4.C.1. Describe rights and responsibilities of being a citizen in Maryland. a. Describe responsibilities associated with certain basic rights of citizens, such as freedom of speech, religion, and press, and explain why these responsibilities are important. b. Describe the role of Maryland state judiciary system.
1.5.C.1. Describe individual rights and responsibilities in the United States. a. Describe responsibilities associated with certain basic rights of citizens, such as freedom of speech, religion, and press, and explain why these responsibilities are important. b. Describe the power and responsibility of the Supreme Court including the power of judicial review.
1.4.C.2. Explain how Maryland government protects the rights of individuals and groups. a. Describe the rule of law and explain how it impacts individuals and groups. b. Describe the balance between private life and government in providing order and protecting rights.
1.5.C.2. Evaluate how the United States government protects the rights of individuals and groups. a. Explain the balance between providing for the common good and protecting individual rights. b. Analyze how government needs to provide more protection and order during times of crisis, such as the natural disasters and threats to national security.
2.4.B.1. Analyze how Maryland society was influenced by the contributions of people and groups. b. Describe the contribution of individuals and groups.
2.4.C.1. Evaluate how various perspectives of Marylanders can cause compromise and/or conflict. b. Investigate the causes of contemporary conflict and compromises.

Formulate generalizations about how interactions between peoples and/or the environment influenced life within different Native American societies.
1.5.A.1. Examine the early foundations, functions, and purposes of government. a. Describe how the European policies affected the interactions of explorers and colonists with Native Americans, such as the French and Indian War.
2.4.A.1. Describe the various cultures of early societies of Maryland. a. Define how culture influences people. c. Examine and describe the unique and diverse cultures of early Native American societies. d. Compare the early cultures of the Native Americans with the European settlers and their influences on each other.
5.4.A.2. Compare Native American societies in Maryland before and after European colonization. a. Identify the development of indigenous societies from the Pale- Indians to the Woodland Indians. b. Describe Native American societies indigenous to Maryland after European contact.
3.4.D.1. Describe how people adapt to, modify and impact the natural environment. a. Compare ways Native American societies in Maryland used the natural environment for food, clothing, and shelter.
3.5.D.1. Explain why and how people adapt to and modify the natural environment and the impact of those modifications.

a. Compare ways Native American societies used the natural environment for food, clothing, and shelter.
5.5.A.2. Analyze the chronology and the significance of key historical events leading to early settlements in colonial America.
b. Analyze how key historical events impacted Native American societies.

Infer and explain goals, accomplishments, and impacts of North American explorers.

2.5.B.1. Analyze how native societies were influenced by the diverse cultures of the explorers and settlers.
a. Compare perspectives of Native American, Africans, and the European explorers.
b. Describe how cultures changed as a result of Native American, African, and European interaction.
5.4.A.1. Analyze the chronology and significance of key historical events leading to early settlement in Maryland..
a. Explain how and why the Maryland colony was established, including political and economic motives for coming to the new world.
5.5.A.1. Analyze the chronology and significance of key historical events during the age of European exploration.
a. Describe the origin, destination and goals of the North American explorers.
b. Evaluate the results of the interactions between European explorers and native peoples.

Select, evaluate, and use information to describe early settlements in North America.

1.5.A.1. Examine the early foundations, functions, and purposes of government.
b. Explain and clarify how Europe's philosophies and policies affected the political structure of the early American colonies.
3.5.A.1. Use geographic tools to locate places and describe human and physical characteristics in colonial America.
a. Use map elements to interpret and construct a variety of maps.
b. Use a globe and a variety of maps, atlases to identify natural/physical features of colonial settlements.
c. Use photographs, maps, and drawings to describe geographic characteristics.
d. Compare geographic locations and geographic characteristics of colonial settlements, such as, Jamestown, Plymouth, Boston, Philadelphia, Charleston, and New York City.
5.4.A.1. Analyze the chronology and significance of key historical events leading to early settlement in Maryland.
b. Compare the development of places and regions, such as St. Mary's City, Western Maryland, Kent Island, and Annapolis.
5.5.A.2. Analyze the chronology and the significance of key historical events leading to early settlements in colonial America.
a. Describe the major settlements in Roanoke, St. Augustine and Jamestown.

Formulate generalizations about how interactions between peoples and/or the environment influenced life within colonial societies.

1.4.A.1. Trace how the political structure in early Maryland developed and changed over time.
a. Describe how the colony of Maryland was established and governed including the establishment of rule of law and power with authority, such as Proprietorships, Royal Governor, and early General Assembly.
1.4.A.2. Analyze the documents, and democratic ideas that developed in the Maryland.
a. Analyze how colonial law influenced individuals in Maryland and other colonies, such as indentured servants contracts, Tolerance Acts of 1649, Maryland Charter of 1632.
1.5.A.1. Examine the early foundations, functions, and purposes of government.
b. Explain and clarify how Europe's philosophies and policies affected the political structure of the early American colonies.
d. Trace the development of early democratic ideas and practices that emerged during the early colonial period, including the significance of representative assemblies and town meetings.
1.5.A.3. Analyze the roles of colonial government regarding public policy and issues.
a. Identify the effect that regional interests and perspectives had on shaping government policy, and compare such as middling class v. gentry, plantation owners v. proprietors.
b. Analyze how geographic information influenced the formation of policy, such as the Proclamation of 1763.
2.4.A.1. Describe the various cultures of early societies of Maryland.
a. Define how culture influences people.
b. Describe the social, political and religious character of the earliest colonies.
d. Compare the early cultures of the Native Americans with the European settlers and their influences on each other.
2.5.A.1. Describe the various cultures of colonial societies and how the environment influenced them.
a. Describe how environment and location influenced the cultures and lifestyle.
b. Define the social, political, and religious components of the early colonies.
c. Analyze the religious beliefs of early settlers, the motives for migration and the difficulties they encountered in early settlements.

2.4.B.1. Analyze how Maryland society was influenced by the contributions of people and groups.
- a. Describe the contributions of past Maryland leaders.

2.4.B.2. Describe cultural characteristics of various groups of people in Maryland.
- a. Describe the similarities and differences of religious, ethnic, and economic groups in colonial and contemporary times.
- b. Site example of how various cultures borrow and share traditions.

2.5.B.2. Analyze how increased diversity in the colonies resulted from immigration, settlement patterns and economic development.
- a. Analyze how the influx of immigrants led to economic growth and cultural diversity.
- b. Provide examples of how the interactions of various groups resulted in the borrowing and sharing of traditions and technology.

2.5.C.1. Analyze factors that affected relationships in the colonial period.
- a. Analyze how conflict affected relationships among individuals and groups, such as early settlers and Native Americans, free and enslaved people.

3.5.A.1. Use geographic tools to locate places and describe human and physical characteristics in colonial America.
- a. Use map elements to interpret and construct a variety of maps.
- b. Use a globe and a variety of maps, atlases to identify natural/physical features of colonial settlements.
- c. Use photographs, maps, and drawings to describe geographic characteristics.
- d. Compare geographic locations and geographic characteristics of colonial settlements, such as, Jamestown, Plymouth, Boston, Philadelphia, Charleston, and New York City.

3.5.B.1. Examine the similarities and differences of regions in colonial America.
- a. Compare the natural/physical and human characteristics of the three colonial regions
  - New England
  - Middle
  - Southern
- b. Describe how geographic characteristics of a place or region changed from early settlements through the colonial period.
- c. Explain how geographic characteristics affect how people live and work, and the population distribution of a place or region.

3.5.C.1. Describe and analyze population growth, migration and settlement patterns in colonial America.
- a. Explain how geographic characteristics influenced settlement patterns in colonial America.
- b. Analyze the consequences of migration between the colonies and immigration to the colonies, such as Europeans and Africans immigrating to the east coast of the United States.
- c. Explain the importance of shipping and trading to the economic development of the colonies, such as Triangular Trade.

3.5.D.1. Explain why and how people adapt to and modify the natural environment and the impact of those modifications.
- b. Describe ways that colonists in the New England, Middle and Southern regions adapted to and modified the environment, such as the uses of the grist mill, water wheels and plantation farming.
- c. Explain how colonists adapted to and modified their environments and how these modifications sometimes created environmental problems.

4.5.A.2. Analyze how limited economic resources were used to satisfy economic wants in colonial America.
- a. Describe how limited resources and unlimited economic wants caused colonists to choose certain goods and services.
- b. Describe how available resources affected specialization and trade.

4.5.A.3. Analyze how technological changes affected production and consumption in colonial America.
- a. Explain how the development of new products and new technologies affected the way people lived.
- b. Examine how technology has changed production such as wheat/grist mills.

4.5.A.4. Analyze the consequences of specialized work on interdependence, trade, and economic growth.
- a. Analyze examples of regional specialization and how it contributed to economic growth through the colonies.
- b. Explain specialization and interdependence using the triangular trade routes.

4.5.B.1. Describe the types of economic systems in colonial America.
- a. Identify examples of tradition, such as the economic roles of men and women.
- c. Analyze a market economy and give examples of how the colonial economy exhibited these characteristics such as private ownership and consumer choice.

4.5.B.3. Describe the role of money and barter in the colonial trade.
- a. Compare the benefits of a money economy to a barter economy.

5.4.A.1. Analyze the chronology and significance of key historical events leading to early settlement in Maryland.
- c. Describe the establishment of slavery and how it shaped life in Maryland.

5.4.A.2. Compare Native American societies in Maryland before and after European colonization.
- b. Describe Native American societies indigenous to Maryland after European contact.

5.5.A.2. Analyze the chronology and the significance of key historical events leading to early settlements in colonial America.

	b. Analyze how key historical events impacted Native American societies.
5.5.B.2.	Analyze the growth and development of colonial America.
	a. Describe the religious, political and economic motives of individuals who migrated to North America and the difficulties they encountered.
	b. Compare the political, economic and social lives of people in New England, Middle and the Southern colonies.

Desired Outcomes and Indicators Grade 5 – Art—Approved 2006

Art

Represent point of view, mood, meaning, thoughts, and feelings through visual compositions.	
I.2.5.b	Create and describe thematic artworks that communicate personal stories.
I.3.5.a	Describe how artists use elements of art and principles of design to organize visual compositions that convey thoughts and feelings.
I.3.5.b	Select and use elements of art and principles of design to create visual compositions that convey ideas and feelings to the viewer.
II.3.5.b	Use selected attributes of theme, content, form, and style to convey meaning in visual compositions.
III.1.5c	Create artworks that explore the uses of the elements of art, and selected principles of design: pattern, repetition, contrast, rhythm, movement, balance, unity and *emphasis* to express personal meaning.

Identify, compare, and represent different times and places in visual compositions.	
I.2.5.a	Analyze and compare how artists express thematic ideas using art vocabulary.
II.1.5.a	Analyze and interpret the content of selected works of art and compare ways artists of different times and places express ideas and feelings about human experience.
II.1.5.b	Select ideas, images and forms to express meaning about human experiences in visual compositions.
II.2.5.a	Identify artistic styles and forms of expression from different times and places used to create visual art.
II.2.5.b	Describe the origins of selected forms of expression and stylistic innovations used in the visual arts.
II.3.5.a	Analyze a variety of artworks to determine similarities and differences in theme, content, form, and style.
II.4.5.a	Compare themes in art that relate to content explored in other subjects.

Plan multiple solutions when integrating ideas and information using the elements of art and principles of design to create visual compositions.	
I.1.5.a	Analyze how physical qualities of people, animals, and objects are represented through the elements of art.
I.1.5.b	Compose and render from observation subject matter that shows 3-dimensional form, light and shadow, qualities of surface texture, detail, and spatial relationships.
I.3.5.a	Describe how artists use elements of art and principles of design to organize visual compositions that convey thoughts and feelings.
I.3.5.b	Select and use elements of art and principles of design to create visual compositions that convey ideas and feelings to the viewer.
III.1.5c	Create artworks that explore the uses of the elements of art, and selected principles of design: pattern, repetition, contrast, rhythm, movement, balance, unity and *emphasis* to express personal meaning.
III.2.5.a	Describe how artists use the elements of art and principles of design to organize visual compositions.
III.2.5.b	Organize the elements of art and principles of design: pattern, repetition, contrast, rhythm, movement, balance, unity and *emphasis* to create artworks in response to what is observed or seen.
III.3.5.a	Demonstrate understanding of the processes artists use to develop their ideas by describing strategies, techniques, and resources.

Integrate and justify critique criteria to evaluate and respond to artwork.	
III.2.5.a	Describe how artists use the elements of art and principles of design to organize visual compositions.
IV.1.5.a	Compare the aesthetic qualities of teacher selected artworks using art vocabulary derived from the elements of art and selected principles of design to discuss the content, forms, and artistic styles represented.
IV.1.5.b	Establish criteria for judging artworks by interpreting aesthetic qualities and styles of exemplary models.
IV.1.5.c	Use criteria recognized in exemplary models to support responses to personal artworks and the artworks of others.
IV.2.5.a	Establish criteria for judging artworks by interpreting exemplary models.
IV.2.5.b	Describe, analyze, interpret, and make judgments about personal artwork and that of others.
IV.2.5.c	Apply criteria to the assessment of personal artworks and the artworks of others.

Select and adapt materials and processes in the creation of artwork.	
II.4.5.b	Compare processes used in the visual arts and other disciplines to express ideas.
II.4.5.c	Select and use visual art processes to interpret and express ideas in art and other disciplines.
III.1.5.a	Experiment with art media, processes and techniques to convey specific thoughts and feelings
III.1.5.b	Safely manipulate and share art media and tools.
III.3.5.a	Demonstrate understanding of the processes artists use to develop their ideas by describing strategies, techniques, and resources.

Desired Outcomes and Indicators Grade 5 – General Music—Approved 2006

music

Perform alone and in an ensemble: chordal accompaniments and sing partner songs with correct posture, head voice, clear vowels, and clear diction.	
I.2.5.d	Perform simple chordal accompaniments while other students sing or play contrasting parts.
I.2.5.c	Demonstrate proper playing technique for instruments from diverse cultures.
IV.2.5.c	Demonstrate audience behaviors that are respectful of the performers.
I.2.5.a	Sing with increased vocal expression and clear diction.
I.2.5.b	Sing partner songs and songs with descants accurately.
I.2.5.e	Sing or play in groups, blending timbres and matching dynamic levels.

Improvise a simple melody over a 12-bar blues chord progression and create, notate, and arrange a melodic composition for classroom instruments.	
III.1.5.a	Improvise short instrumental pieces using a variety of sound sources including traditional sounds, non-traditional sounds found in the classroom, and body percussion
I.2.5.d	Perform simple chordal accompaniments while other students sing or play contrasting parts.
III.1.5.b	Improvise using a variety of vocal sounds including traditional melodic sounds and other nontraditional vocal sounds.
I.4.5.c	Notate individually created four-measure melodies on the treble staff using standard notation.
III.2.5.b	Compose and notate an eight-measure melody using original pitches and rhythms.
III.2.5.a	Arrange a given melody for classroom instruments.

Demonstrate fluency of musical language: read standard notation on the treble staff to perform a melody and represent an aural melody with using melodic dictation.	
I.4.5.a	Read and perform a simple melody on the treble staff in different keys using solfeggio or a comparable system.
I.4.5.b	Notate a short melodic phrase from dictation using standard notation.

Identify and analyze musical form and instruments; compare and evaluate performances.	
I.1.5.a	Identify specific instruments by sight and sound.
I.1.5.b	Describe musical form in music from diverse cultures.
II.2.5.a	Listen to and describe how selected works from standard music literature correspond to specific historical events.
II.2.5.c	Listen to and compare examples of music that represent musical styles and traditions from various historical periods and world cultures.
IV.2.5.b	Identify differences in two performances of the same selection of music.
I.1.5.c	Listen to, perform, and identify changes in expressive qualities.
IV.2.5.a	Develop criteria and apply them to the evaluation of their own and others' performances.
II.1.5.c	Describe how the elements of music are used in aural examples from various world cultures.

Perform movement to demonstrate traditional folk dances, compound meter, and to communicate meaning.	
I.3.5.c	Perform folk songs and traditional dances from a variety of world cultures.
I.3.5.b	Conduct music in compound meter.
I.3.5.a	Create movement patterns to communicate meaning or feeling in music.
II.2.5.b	Perform songs and dances from a variety of historical periods and world cultures, including some connected to general classroom studies.

Health

Identify and describe strategies to stay safe.

1.5.D.1 Apply the decision-making process to personal issues and problems.
- a. Explain how decisions are influenced by individuals, families, and communities.
- b. Dramatize the decision-making process in various situations.

1.5.F.1 Recognize time management as an effective stress management skill.
- a. Identify effective time management strategies.
- b. Demonstrate effective time management strategies.

2.5.A.1 Identify safe practices for using prescription and OTC drugs.
- a. Distinguish between prescription and OTC drugs.
- b. List ways to safely use medicine and/or over the counter drugs.

2.5.B.1 Develop and apply skills to resist pressure to use tobacco.
- a. Recognize the internal and external influences on use of tobacco.
- b Identify and practice strategies for dealing with peer pressure.
- c. Recognize and analyze media influences on tobacco use such as music, television, movies, art, billboards, radio, clothing, magazines.
- d Discuss family, cultural, peer, and legal influences on tobacco to avoid use.
- e Demonstrate ways to encourage others not to use tobacco.

2.5.C.1 Identify and examine physical, psychological, and social, consequences of alcohol use.
- a. Identify the physical and psychological consequences of alcohol addiction.
- b. Discuss how the abuse of alcohol may affect others, such as drinking and driving.
- c. Explain the legal consequences of underage alcohol use and/or possession.

2.5.C.2 Develop and apply skills to resist pressure to use alcohol.
- a. Demonstrate strategies for dealing with peer pressure.

2.5.E.1 Identify marijuana as a psychoactive and illegal drug.
- a. Define psychoactive drugs.
- b. Describe the effects of marijuana on the body.
- c Identify the consequences of marijuana use.

2.5.E.2 Develop and apply skills to resist pressure to use marijuana.
- a. Identify and practice strategies for dealing with peer pressure.
- b. Recognize and analyze media influences on marijuana use such as music, television, movies, art, billboards, radio, clothing, and magazines.

5.5.B.1 Identify household products that can be abused by inhaling.
- a. Define inhalants and list examples.
- b. Investigate the effects of inappropriate use of household products on the body.
- c. List rules and safe practices for the use of household products.

5.5.C.1 Recognize sexual harassment as a form of violence.
- a. Define sexual harassment.
- b. Describe examples of intimidating behaviors.
- c. Demonstrate strategies to overcome or avoid harassment.
- d. Develop a list of trusted adults to notify if harassment occurs.

7.5.A.1 Differentiate between communicable and non-communicable diseases.
- a. Compare pathogens such as bacteria, protozoa, virus, and fungus.
- b. Identify the modes of transmission, such as air, touch, food, and body fluids.

7.5.B.1 Explain how the body fights infection.
- a. Explain how the immune system responds to disease.

7.5.C.1 Explain HIV/AIDS as a communicable disease.
- a. Describe the modes of transmission for HIV.
- b. Clarify ways HIV cannot be transmitted.
- c. Identify behaviors that increase the risk of contracting HIV.
- d. Identify ways to prevent the transmission of HIV/AIDS.

7.5.D.1 Analyze personal daily living habits and choices that increase the risk of developing disease.
- a. List behaviors that increase the risk of developing disease such as cardiovascular, pulmonary and cancer.
- b. Identify and categorize personal habits into high, medium and low risk behaviors.

Desired Outcomes and Indicators Grade 5 – Comprehensive Health Education—Approved 2006

Identify, describe and organize benefits of behaviors and strategies that promote lifelong wellness.

1.5.A.1 Recognize and apply effective communication skills.
- a. Model verbal and non-verbal methods of communication.

1.5.B.1 Examine emotions and responses to various situations.
- a. Identify different complex emotions, such as anxiety, frustration, doubt, grief, elation, and others.
- b. Recognize the importance of expressing feelings verbally and non-verbally.
- c. Model positive verbal and non-verbal responses to various situations.

1.5.C.1 Develop strategies to promote components of personal well-being.
- a. Investigate at least one component of personal well-being, other than physical, and develop a goal for positive self-change.

3.5.A.1 Identify and practice health-enhancing behaviors to reduce health risks for safer, healthier lives.
- a. Identify personal health needs.
- b. Demonstrate skills and strategies to improve and maintain personal health.
- c. Describe how conditions of the environment affect personal health.
- d. Explain the importance of assuming responsibility for personal health behaviors.

3.5.B.1 Locate resources from home and school that provide valid health information concerning consumer health issues and services.
- a. Identify current health care issues and the health services available in the school.

4.5.A.1 Describe how family members influence the development of adolescents.
- a. Describe the relationships that exist within a family.
- b. Explain how family relationships may change during puberty.

4.5.C.1 Describe the impact of puberty on physical wellness.
- a. Define puberty.
- b. Identify the parts of the human male and female reproductive system.
- c. Explain the function of the human reproductive organs.
- d. Explain the menstrual cycle and nocturnal emissions.
- e. Identify personal hygiene products.

4.5.D.1 Describe how relationships change with peers throughout puberty.
- a. Identify various positive and negative social groups.
- b. Describe male and female stereotypes and their impact on the individual and a diverse society.

6.5.E.1 Examine the relationship among food intake, physical activity, and weight management.
- a. Compare the relationship between caloric intake and output during activity/inactivity.
- b. Investigate caloric value of personal meal plan in relation to physical activity.

6.5.G.1 Identify how body image affects eating habits.
- a. Identify factors that affect eating habits, including body image.
- b. Describe harmful eating habits.

6.5.I.1 Apply information from the Food Guide Pyramid to choose healthy snacks.
- a. Identify healthy snacks from each food group.
- b. Demonstrate how healthy snacking fits into their daily diet.

Desired Outcomes and Indicators Grade 5 – Information Literacy—MSDE

Info. Lit.

Formulate and refine researchable questions based on personal or content information need and availability of resources.
1.B.3 Formulate and refine questions to meet an information need.
a. Use prior knowledge to collaboratively formulate and refine questions to meet an information need.
b. Collaboratively, identify which formulated questions are researchable.
2.A.1 Identify resources to meet the information need.
c. With guidance, refine or revise researchable questions based on access to availability of resources.
2.B.1 Locate and select sources to meet the information need.
c. With guidance, apply knowledge of search strategies to locate relevant sources.
d. With guidance, select print, online, and multimedia sources that meet the information need.
2.B.2 Evaluate sources to meet the information need.
a. With guidance, evaluate sources based on currency, authority, bias, and relevance to select sources that best meet the information need.
c. With guidance, defend selected sources.
3.C.3 Revisit the information need.
a. Reflect upon the need to revise research questions and, with guidance, refine research questions based on new information discovered in the inquiry process.

Determine how to ethically act on recorded information gathered from multiple sources and critique the information to verify reliability and validity.
3.A.1 Use specific sources to find information.
c. With guidance, use technology tools to find data/information within a specific source.
3.B.1 Generate data/information from interviews and/or surveys.
a. With guidance, generate appropriate questions to meet the information need.
b. With guidance, generate information in an appropriate format (e.g., video or audio recording, notes, table, graphic organizer).
c. With guidance, exhibit ethical behavior in generating information.
3.C.1 Record data/information in a variety of formats.
c. Determine appropriate format to record and organize data/information.
e. Avoid plagiarism by copying relevant information word for word and keeping track of the source.
f. Use technology to record and organize data/information.
3.C.2 Use an appropriate and accepted citation style to create a source list.
c. Create a source list using an accepted citation style.
d. With guidance, use technology to create a source list in an accepted citation style.
4.A.1 Evaluate and analyze the quality of recorded data/information to meet the information need.
c. Evaluate recorded information for relevance, completeness, and, with guidance, accuracy and discrepancies.
d. Check recorded information to ensure the information product will contain data/information from multiple sources.
e. Find and record missing or additional data/information.
4.A.3 Apply ethical practices to the evaluation and analysis of the recorded data/information.
b. With guidance, avoid plagiarism by creating a source list for all summarized and paraphrased recorded data/information.

Integrate recorded information and self-monitor strategies to access progress and apply new thinking to create a new product for a specific audience.
4.A.2 Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need.
b. With guidance, identify point of view within the recorded data/information.
e. Summarize and paraphrase the recorded data/information.
4.A.3 Apply ethical practices to the evaluation and analysis of the recorded data/information.
c. With guidance, identify possible alternative interpretations applicable to the recorded data/information.
d. With guidance, use technology to support critical thinking skills and problem-solving strategies to meet the information need.
4.B.1 From the recorded data/information, ethically generate new understandings and knowledge related to the information need.
b. Draw conclusions from the recorded data/information to create new understandings.
c. Defend the conclusions drawn from the recorded data/information.
5.A.1 Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
a. With guidance, organize and display findings/conclusions in a variety of formats.
b. With guidance, design layouts that communicate content effectively for intended audiences.
c. Apply appropriate practices related to content and layout of the information product.

	d. With guidance, use technology to present findings/conclusions in a variety of formats.
	e. With guidance, edit/review/revise/practice the presentation of the information product.
	f. Discuss and apply fair use, copyright laws, and creative commons attributions.
5.B.1	Evaluate the inquiry process and the information product.
	a. With guidance, create and apply criteria for evaluating the information product.
	b. With guidance, use audience feedback and/or peer review to reflect on the information product and the learning experience.
	c. Reflect on the information need and new knowledge.
	d. Respond to a directed reflection on the inquiry process.
	e. Respond to a directed reflection on how to use the inquiry process more efficiently.

Demonstrate willingness to accept uncertainty by expressing intellectual freedom and explaining its value.	
6.A.2	Select literature and/or multimedia from the media center and other libraries for a personal and/or assigned need.
	a. Follow circulation procedures and policies in the media center and other libraries.
	b. Browse and select literature and/or multimedia in a variety of genres.
6.B.1	Connect literature and multimedia to learning.
	b. Defend literature and/or multimedia choices.
	c. With guidance, explain why intellectual freedom is important and what we must do to preserve it.
	d. With guidance, contribute to a learning community.

Desired Outcomes and Indicators Grade 5 – Mathematics—Common Core Standards

Integrate the components of mathematical proficiency with whole number operations and applications to build fluency with addition and subtraction of fractions and develop understanding of multiplication and division of fractions. **Common Core Critical Area: Developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions).**	
1.5.B.1	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
1.5.B.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*
1.5.D.1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)*
1.5.D.2	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2*
1.5.D.3	Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
1.5.D.4	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)* b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
1.5.D.5	Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
1.5.D.6	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
1.5.D.7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.* b. Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.* c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?*
2.5.A.2	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*
Combine concepts about relationships among whole number operations, fractions, and decimals to develop and apply strategies for multiplication and division of decimal fractions. **Common Core Critical Area: Extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations.**	
1.5.C.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
1.5.C.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
1.5.C.3	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 ×

	(1/100) + 2 × (1/1000).
	b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
1.5.C.4	Use place value understanding to round decimals to any place.
1.5.C.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
1.5.C.6	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
1.5.C.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
2.5.A.1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Select appropriate units, strategies, and tools to develop understanding of and solve problems with concepts of volume. **Common Core Critical Area: Developing understanding of volume.**	
2.5.A.3	Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
	a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
	b. A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.
2.5.A.4	Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
2.5.A.5	Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
	a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
	b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.
	c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Classify two-dimensional figures in a hierarchy; analyze the relationship between two numerical patterns and represent the relationship on the coordinate plane.	
1.5.B.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*
3.5.A.1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).
3.5.A.2	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
3.5.A.3	Understand that attributes belonging to a category of two dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*
3.5.A.4	Classify two-dimensional figures in a hierarchy based on properties.

Desired Outcomes and Indicators Grade 5 – Physical Education—Approved 2006

Phys. Ed

Demonstrate and combine movement skills to react to the position of moving and stationary people and objects in dynamic, game-like settings.	
II.5.1	Explain Newton's Laws of Motion as they related to movement.
II.5.2	Demonstrate static and dynamic movement patterns.
	b. Identify and perform static and dynamic balance in a variety of physical activities.
IV.5.3	Show that skills will develop with practice over time. (i.e., throwing, catching, kicking, striking).
VI.5.1	Demonstrate fundamental movement skills in daily movement experiences.
	b. Perform fundamental movement skills in a variety of physical activity.
VI.5.3	Demonstrate proficiency in skill themes.

Select and combine locomotor skills, non-locomotor skills, and relationships with others in a creative movement sequence.	
II.5.2	Demonstrate static and dynamic movement patterns.
	a. Create a movement pattern that includes static and dynamic balance.
VI.5.2	Develop creative movement skills.

Combine and apply health-related fitness components into the FITT Formula to develop a personal fitness plan and adapt personal goals based on achievement.	
I.5.1	Analyze and demonstrate the effect of physical activity on the body systems.
I.5.2	Analyze and adapt components of the FITT principle to adjust levels of physical activity.
	a. Design a fitness plan using the FITT principle.
I.5.3	Recognize and identify the components necessary to design a fitness plan.
III.5.4	Establish and modify personal physical activity goals while monitoring progress towards achievement.
IV.5.4	Recognize the importance of self-evaluation and feedback in the improvement of motor skills.
V.5.1	Examine and compare individual cardio respiratory fitness.
V.5.2	Examine and compare individual muscular strength and muscular endurance.
V.5.3	Examine and compare individual *flexibility.*

Create and justify rules collaboratively to promote responsibility for self and others.	
III.5.2	Work effectively with others in physical activity settings.
III.5.3	Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.

Desired Outcomes and Indicators Grade 5 – Reading Language Arts—Common Core Standards

RLA

Apply grade level appropriate phonics/word analysis skills and word recognition to read with sufficient accuracy and fluency to support comprehension.

C. Phonics and Word Recognition

1.5.C.3 Know and apply grade-level phonics and word analysis skills in decoding words.

a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

D. Fluency

1.5.D.4 Read with sufficient accuracy and fluency to support comprehension.

a. Read on-level text with purpose and understanding.
b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary..

Read and comprehend literature at the high end of the grades 4–5 text complexity band strategically and independently.

A. Key Ideas and Details

2.5.A.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

2.5.A.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.

2.5.A.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

B. Craft and Structure

2.5.B.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.

2.5.B.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

2.5.B.6 Describe how a narrator's or speaker's point of view influences how events are described.

C. Integration of Knowledge and Ideas

2.5.C.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

2.5.C.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

D. Range of Reading and Level of Text Complexity

2.5.D.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.

Read and comprehend informational text at the high end of the grades 4–5 text complexity band strategically and independently.

A. Key Ideas and Details

3.5.A.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

3.5.A.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

3.5.A.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

B. Craft and Structure

3.5.B.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

3.5.B.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.

3.5.B.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

C. Integration of Knowledge and Ideas

3.5.C.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

3.5.C.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

3.5.C.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

D. Range of Reading and Level of Text Complexity

3.5.D.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

Desired Outcomes and Indicators Grade 5 – Reading Language Arts—Common Core Standards

Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences using processes and traits.

A. Text Types and Purposes

4.5.A.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
- b. Provide logically ordered reasons that are supported by facts and details.
- c. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
- d. Provide a concluding statement or section related to the opinion presented.

4.5.A.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Provide a concluding statement or section related to the information or explanation presented.

4.5.A.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
- c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
- d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
- e. Provide a conclusion that follows from the narrated experiences or events.

B. Production and Distribution of Writing

4.5.B.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

4.5.B.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 5 on pages 28 and 29.)

4.5.B.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

C. Research to Build Knowledge

4.5.C.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

4.5.C.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

4.5.C.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
- a. Apply grade 5 Reading standards to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").
- b. Apply grade 5 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]").

D. Range of Writing

4.5.D.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Listen and speak effectively when evaluating grade-level appropriate topics and texts.

A. Comprehension and Collaboration

5.5.A.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions and carry out assigned roles.
- c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

5.5.A.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

5.5.A.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

B. Presentation of Knowledge and Ideas

5.5.B.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

5.5.B.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

5.5.B.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)

Acquire appropriate vocabulary and demonstrate command of grade-level conventions to use language effectively.

A. Conventions of Standard English

6.5.A.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
b. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
c. Use verb tense to convey various times, sequences, states, and conditions.
d. Recognize and correct inappropriate shifts in verb tense.*
e. Use correlative conjunctions (e.g., *either/or, neither/nor*).

6.5.A.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

a. Use punctuation to separate items in a series.*
b. Use a comma to separate an introductory element from the rest of the sentence.
c. Use a comma to set off the words yes and no (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).
d. Use underlining, quotation marks, or italics to indicate titles of works.
e. Spell grade-appropriate words correctly, consulting references as needed.

B. Knowledge of Language

6.5.B.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.

a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

C. Vocabulary Acquisition and Use

6.5.C.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content,* choosing flexibly from a range of strategies.

a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*).
c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

6.5.C.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

a. Interpret figurative language, including similes and metaphors, in context.
b. Recognize and explain the meaning of common idioms, adages, and proverbs.
c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

6.5.C.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).

Desired Outcomes and Indicators Grade 5 – Science & Engineering—Approved 2001

Formulate generalizations that living things are made of cells by identifying and describing evidence of different types of cells in organisms.

3.5.B.1 Provide evidence from observations and investigations to support the idea that some organisms consist of a single cell.
- a. Use microscopes or other magnifying instruments to observe, describe, and compare single celled organisms, such as amoeba, euglena, paramecium, etc.
- b. Describe the behaviors of the organisms observed, such as movement, taking in food and water, giving off waste.
- c. Cite evidence from data gathered that supports the idea that most single celled organisms have needs similar to those of multi-cellular organisms.

3.5.B.2 Investigate and provide evidence that living things are made mostly of cells that can be seen and studied only through a microscope.
- a. Use microscopes and/or other video technology to investigate and describe that some organisms are composed of a collection of similar cells working together to meet basic needs of a "colony" of cells.
- b. Use microscopes and pictures to investigate, describe with drawings, and compare the cells in a variety of multi-cellular organisms, such as cells in elodea and onions; muscle cells, nerve cells, skin cells, etc in animals.
- c. Select information gathered from readings that supports the need for specialized (different types) cells in multi-cellular organisms.

Examine likenesses between parents and offspring to formulate generalizations about inherited and learned characteristics.

3.4.C.1 Explain that in order for offspring to resemble their parents, there must be a reliable way to transfer information from one generation to the next.
- a. Describe traits found in animals and plants, such as eye color, height, leaf shape, seed type that are passed from one generation to another.
- b. Explain that some likenesses between parents and offspring are inherited (such as eye color in humans, nest building in birds, or flower color in plants) and other likenesses are learned (such as language in humans or songs in birds).
- c. Raise questions based on observations of a variety of parent and offspring likenesses and differences, such as "Why don't all the puppies have the same traits, such as eye color and size as their parents?" or "How do traits get transferred?"
- d. Develop a reasonable explanation to support the idea that information is passed from parent to offspring.

Determine through investigation properties of light and objects in the universe, including movements, locations and positions to infer cause and effects of celestial patterns.

2.4.D.1 Identify and describe the variety of objects in the universe through first-hand observations using the unaided eye, binoculars or telescopes or videos and/or pictures from reliable sources.
- a. Observe and describe the stars and the planets as seen through a telescope, graphically in pictures or in video clips from reliable sources.
- b. Identify the Sun as the Earth's closest star.
- c. Recognize that stars are like the Sun, some are smaller and some larger.
- d. Recognize and describe that the stars are not all the same in apparent brightness.
- e Recognize that the pattern of stars in the sky stays the same although their locations in the sky appear to change with the seasons.

2.5.D.2 Recognize and describe the causes of the repeating patterns of celestial events.
- a. Describe the rotation of the planet Earth on its axis.
- b. Recognize and describe that the rotation of planet Earth produces observable effects
- c. Describe the revolution of the planet Earth around the Sun.
- d. Recognize and describe that the revolution of the planet Earth produces effects.
- e. Verify with models and cite evidence that the moon's apparent shape and position change.

2.5.D.1 Identify and compare properties, location, and movement of celestial objects in our solar system.
- a. Recognize that like all planets and stars, the Earth is spherical in shape.
- b. Identify the properties of the planet Earth that make it possible for the survival of life as we know it.
- c. Compare the properties of at least one other planet in our solar system to those of Earth to determine if it could support life, as we know it.
- d. Identify and describe physical properties of comets, asteroids, and meteors.
- e. Provide reasons that support the idea that our solar system is sun-centered.

5.5.D.3 Provide evidence to show that light travels in a straight line until it is reflected or refracted.
- a. Observe and describe the images formed by a plane mirror.
- b. Based on observations trace the path of a ray of light before and after it is reflected (bounces) off a plane mirror.
- c. Observe and describe that a ray of light changes direction when it crosses the boundary between two materials such as air and water or air to glass.

5.5. D.4 Recognize and describe how light interacts with different materials.
- a. Classify materials as translucent, transparent or opaque.
- b. Explain that shadows are formed when objects block light.
- c. Observe and describe that prisms separate white light into its component colors.

d. Pose questions about why objects appear to be different colors.

Formulate generalizations about the relationships between forms of energy, forces and measurable changes in motion.

5.5.A.1 Describe the motion of objects using distance traveled, time, direction, and speed.
- a. Observe, describe, and compare types of motion.
- b. Use measurements to describe the distance traveled as the change in position.
- c. Based on data describe speed as the distance traveled per unit of time.

5.5.A.2 Explain that the changes in the motion of objects are determined by the mass of an object and the amount (size) of the force applied to it.
- a. Observe and give examples that show changes in speed or direction of motion are Mechanics caused by an interaction of forces acting on an object: Friction, Gravity
- b. Observe and explain the changes in selected motion patterns using the relationship between force and mass.

5.5.A.4 Cite evidence that energy in various forms exists in mechanical systems.
- a. Identify ways of storing energy (potential) in an object.
- b. Identify that an object has energy (kinetic) related to its motion.
- c. Observe and cite examples showing that stored energy may be converted to energy of motion and vice versa.

Select, test and provide evidence of forces acting on objects including electricity and magnetism.

5.4.C.1 Recognize and describe the effects of static electric charges.
- a. Observe and describe how to produce static charges by friction between two surfaces.
- b. Observe the phenomena produced by the static charges.

5.4.C.3 Cite evidence supporting that forces can act on objects without touching them.
- a. Investigate and describe the effect that two magnets have on each other.
- b. Based on observations, describe the effect of a magnet on a variety of objects, including those that are metallic or non-metallic; those made with iron or made with other metals; and on other magnets.
- c. Compare a compass to a magnet, based on observations of the effect a variety of objects (metallic or non-metallic; those made with iron or other metals; and magnets) have on a compass.
- d. Provide examples to demonstrate the different ways a magnet acts on objects and how the objects respond.
- e. Investigate and describe how electricity in a wire affects the needle of a compass.
- f. Describe how to make a simple electromagnet with a battery, a nail, and wire.
- g. Cite examples showing that magnetic, electrical, and gravitational forces can act at a distance.

5.4.C.2 Investigate and provide evidence that electricity requires a closed loop in order to produce measurable effects.
- a. Identify the source of electricity needed to produce various effects.
- b. Investigate and describe (orally or with diagrams) how to light a light bulb or sound a buzzer, given a battery, wires, and light bulb or buzzer.
- c. Describe and compare the path of electricity (circuit) within this system that caused the light to light or the buzzer to sound to those that do not affect the light or buzzer.
- d. Observe, describe, and compare materials that readily conduct electricity and those that do not conduct electricity.
- e. Provide evidence from observations and investigations that electrical circuits require a complete loop through which electricity can pass.

Science

Desired Outcomes and Indicators Grade 5 – Social Studies—Approved 2001

Social Studies

Formulate generalizations about the role and influence of individuals, groups, and events leading to the onset of and during the Revolutionary War.

1.4.B.1. Analyze how individuals and groups contributed to the political system in Maryland.
- a. Describe the contributions of 17th century English settlers who influenced the early political structure.
- b. Research the role of Marylanders who influenced the building of our new nation, such as the Sons of Liberty, William Paca, Charles Carroll, Thomas Stone, and Samuel Chase.

2.4.B.1. Analyze how Maryland society was influenced by the contributions of people and groups.
- a. Describe the contributions of past Maryland leaders.
- b. Describe the contribution of individuals and groups.

2.4.C.1. Evaluate how various perspectives of Marylanders can cause compromise and/or conflict.
- a. Describe the differing historical conflicts such as between the Patriots and Loyalists.

4.4.B.3. Examine the progression from a barter system to a money economy in colonial America.
- a. Give examples of barter exchanges of goods and services in Maryland.
- b. Give examples of contemporary money exchanges.

4.5.A.1. Explain that people made choices because resources were limited relative to economic wants for goods and services in colonial America.
- a. Identify the opportunity cost of economic decisions, such as whether or not to buy products on which British taxes were imposed.

4.5.A.2. Analyze how limited economic resources were used to satisfy economic wants in colonial America.
- a. Describe how limited resources and unlimited economic wants caused colonists to choose certain goods and services.
- b. Describe how available resources affected specialization and trade.
- c. Analyze how changing from a British colony to an independent nation affected economic resources, production, and economic wants.

4.5.B.1. Describe the types of economic systems in colonial America.
- b. Describe examples of command decisions, such as the imposition of the Stamp Act and the Tea Act.
- c. Analyze a market economy and give examples of how the colonial economy exhibited these characteristics such as private ownership and consumer choice.

4.5.B.2. Describe the role of British government on the colonial economy.
- a. Explain how colonists were forced to change their purchasing habits based on the scarcity of goods imposed by taxes.
- b. Evaluate the trade-offs of British protectionism.

5.5.B.2. Analyze the growth and development of colonial America.
- c. Analyze the different roles and viewpoints of individuals and groups, such as women, men, free and enslaved Africans, and Native Americans during the Revolutionary period.

5.4.C.1. Examine the consequences of interactions among groups and cultures in Maryland.
- a. Describe Maryland colonists' reactions to changing economic policies from England using events that led to the American Revolutionary War.
- b. Explain the interactions between colonists and the British during the Pre-Revolutionary period.

5.5.C.1. Analyze the causes of the American Revolution.
- a. Identify and sequence key events between the French and Indian War and the American Revolution.
- b. Examine the viewpoints of Patriots and Loyalists regarding British colonial policy after the Seven Years' War.

Formulate generalizations about roles and perspectives of individuals and groups which shaped events leading to and during the Constitutional Convention.

1.4.A.3. Analyze the role of Maryland government regarding public policy and issues.
- a. Analyze perspectives and policies in Maryland regarding historic and current public issues.

1.5.A.1. Examine the early foundations, functions, and purposes of government.
- c. Identify and summarize how democratic principles, such as rule of law, limited government, consent of the governed, popular sovereignty, representative democracy, and the limitation of power influenced our founding documents.

1.5.B.1. Analyze how individuals' roles and perspectives shape the American political system.
- a. Examine the contributions of people associated with the drafting of the Declaration of Independence and the framing of the Constitution, such as James Madison, Thomas Jefferson, John Jay, and George Washington.
- b. Examine how the federalists and anti-federalist perspectives influenced government.

2.4.B.1. Analyze how Maryland society was influenced by the contributions of people and groups.
- a. Describe the contributions of past Maryland leaders.
- b. Describe the contribution of individuals and groups.

2.5.C.1. Analyze factors that affected relationships in the colonial period.
- a. Analyze how conflict affected relationships among individuals and groups, such as early settlers and Native Americans, free and enslaved people.

b. Provide the examples of conflicts and compromises among differing groups of people during the Constitutional Convention.

5.5.C.2. Analyze the effects of the American Revolution.
- a. Analyze how the revolution altered colonial and national governments.
- b. Describe individual freedoms that resulted from the formation of an independent nation.

Infer and explain the significance of principles and organizational structures found in governing documents.

1.5.A.1. Examine the early foundations, functions, and purposes of government.
- c. Identify and summarize how democratic principles, such as rule of law, limited government, consent of the governed, popular sovereignty, representative democracy, and the limitation of power influenced our founding documents.

1.5.A.2. Analyze the historic events, documents, and practices that are the foundations of our political systems.
- b. Analyze the successes and failures in meeting the challenges of governing under Articles of Confederation.
- c. Explain the significance of principles in the development of the Declaration of Independence, Articles of Confederation, Preamble, U.S. Constitution and the Bill of Rights.
- d. Describe the three branches of government and their individual powers and responsibilities, such as separation of powers and checks and balances.

1.5.C.3. Examine the principle of due process.
- a. Describe the due process protections in the Bill of Rights.

Infer and explain how geographic characteristics influenced settlement patterns in Maryland and the United States.

1.4.A.3. Analyze the role of Maryland government regarding public policy and issues.
- a. Analyze perspectives and policies in Maryland regarding historic and current public issues.

3.4.A.1. Use geographic tools to locate places and describe the human and physical characteristics of those places.
- a. Construct and interpret a variety of maps using map elements.
- b. Use photographs, maps, charts, graphs, and atlases to describe geographic characteristics of Maryland/United States.
- c. Identify and locate natural/physical features and human-made features of Maryland such as Appalachian Mountains, Piedmont Plateau, and Atlantic Coastal Plain.
- d. Identify and locate natural/physical features and human-made features of the United States.

3.4.B.1. Describe similarities and differences of regions by using geographic characteristics.
- a. Compare physical characteristics of different places and regions of Maryland and the United States including natural/physical features, weather and climate, soil, vegetation, minerals and animal life.
- b. Compare human characteristics of different places and regions of Maryland the United States, including human-made features, language, religions, political systems, economic activity, and population distribution.
- c. Describe how geographic characteristics of a place or region change over time and affect the way people live and work.

3.4.C.1. Describe and analyze population growth, migration, and settlement patterns in Maryland and regions of the United States.
- a. Explain how geographic characteristics influenced settlement patterns in Maryland and the United States.
- b. Explain how changes in transportation and communication led to the growth and development of towns and cities in Maryland and United States.
- d. Describe the transportation and communication networks for the movement of people, goods, and ideas to, from and within Maryland such as Bay Bridge, National Road, B & O Railroad, the Port of Baltimore, and C & O Canal.
- e. Identify the reasons for the movement of peoples to, from, and within Maryland and the United States.

3.4.D.1. Describe how people adapt to, modify and impact the natural environment.
- b. Describe ways and reasons people in Maryland and the United States modify the natural environment and the consequences of modifications.
- c. Explain how the growth of communities and suburbs have had consequences on the environment, loss of farmland, and pollution
- d. Describe how land use and urban growth are influenced by governmental decisions.

4.4.A.1. Explain that people must make choices because resources are limited relative to economic wants for goods and services in Maryland, past and present.
- a. Identify opportunity cost of economic decisions made by individuals, businesses, and governments.

4.4.A.2. Explain how limited economic resources are used to produce goods and services to satisfy economic wants in Maryland.
- a. Describe how scarcity and the availability of economic resources determine what is produced and the effects on consumers.

4.4.A.3. Explain how technological changes have affected production and consumption in Maryland.
- a. Describe how changes in technology, such as refrigeration, impacted the lives of consumers.
- b. Describe how entrepreneurship inspired technological changes and affected business productivity.

4.4.A.4. Describe regional economic specialization in Maryland and the ways people live and work.
- a. Explain how available resources determine which careers are more common in one region such as waterman on the Eastern Shore.
- b. Describe how specialization results in the interdependence of people.

5.4.A.1. Analyze the chronology and significance of key historical events leading to early settlement in Maryland. b. Compare the development of places and regions, such as St. Mary's City, Western Maryland, Kent Island, and Annapolis. 5.4.C.2. Explain the political, cultural, economic and social changes in Maryland during the early 1800s. b. Describe the importance of changes in industry, transportation, education, rights and freedoms in Maryland, such as roads and canals, slavery, B&O railroad, the National Road, immigration, public schools, and religious freedoms.

Formulate generalizations about interactions between decisions made by individuals and governments and wants.
4.4.B.1. Describe the types of economic systems in Maryland. a. Provide examples of tradition in the Maryland economy, such as businesses and skills that are handed down through families. b. Give examples of the kinds of goods and services produced in Maryland during different historical periods. 4.4.B.2. Describe the role of government in regulating economic activity and providing goods and services**.** a. Give examples of how governments' decision making affect economic growth and the ability to provide jobs and provide services. b. Explain how local and state governments in Maryland provide goods and services and are paid for by taxes. c. Give examples of government's rules and laws that affect how people in businesses work such as, requiring licenses to drive and regulating resources. 4.5.B.3. Describe the role of money and barter in the colonial trade. a. Compare the benefits of a money economy to a barter economy.

Attachment B

Montgomery County Public Schools
Elementary Integrated Curriculum Framework and Thinking and Academic Success Skills
Opportunities for Stakeholder Input and Feedback
Fall 2010

Group	Date
Office of Curriculum and Instructional Programs Curriculum Advisory Assembly (CAA)	September 21, 2010
Montgomery County Council of Parent Teacher Associations (MCCPTA) Focus Group	September 23, 2010 November 8, 2010
Department of Family and Community Partnerships Parent Advisory Council (PAC)	October 20, 2010
Department of Curriculum and Instruction Curriculum Advisory Committee (CAC)	October 27, 2010
Councils on Teaching and Learning (CTL) Focus Group	October 28, 2010 November 16, 2010
EIC Framework Posted on MCPS Website Along with Opportunity to Provide Input and Feedback	October 15, 2010 through November 19, 2010

Attachment C

Montgomery County Public Schools
Elementary Integrated Curriculum Framework and Thinking and Academic Success Skills
What Works
Fall 2010

Theme	Comments
Descriptive Not Prescriptive	• EIC tells teachers what to teach and not how to teach it—freedom. • Variety in suggested strategies. • Freedom to teach concepts in own way.
Integration	• Can still teach my lessons; just rearrange to fit the EIC. • More well-rounded approach is good. • I believe teaching the entire child will increase student achievement—and with this curriculum it will happen. • Great that social studies and science are going to be integrated. • Great way to improve student engagement. • This curriculum helps teachers to better understand their students. • It seems like the EIC will allow children to develop "fluid intelligence," i.e., the ability to think of novel ways to approach situations and solve problems.
Thinking and Academic Success Skills	• Integration of thinking skills across disciplines has merit whether or not it creates more time for social studies. • The skills themselves are important and well described. • Excellent initiative in integrating critical thinking skills. • I enjoy academic and creative thinking skills. • They will really help teachers to know their kids better/more in-depth.
Online Professional Learning Community	• Ability for teachers to upload and rate resources. • I like being able to rate activities/resources. • Ability to share with others. • Love the integration and to see what others are doing.
Materials	• Teacher support materials appear to be a bonus. • Like the planner feature. "Click to add" makes way more sense than copy/paste.
Curriculum Content	• Happy to hear the shift in math. Always feared the math curriculum was moving too fast. • Finally looking at what other countries are doing in math.
Consistency	• Standardizes lessons across classrooms—helps teachers to be systematic about teaching and monitoring skills across content areas and across the school day.

Attachment D

#	Name/Group	Date	Recommendation or Consideration	Response
1	Curriculum Advisory Assembly	9/21/2010	Does this curriculum have a global perspective?	Yes. Social Studies standards include a global perspective.
2	Curriculum Advisory Assembly	9/21/2010	How does EIC prepare students to live in 21st century, both culturally and technologically?	Through a rigorous curriculum in all content areas and the inclusion of the Thinking and Academic Success Skills, the EIC will prepare students for the 21st century.
3	MCCPTA Focus Group	9/23/2010	Science and engineering begin Grade 3, why not earlier?	Science and engineering begin in kindergarten.
4	MCCPTA Focus Group	9/23/2010	So much academics. Supplement with social skills.	The EIC includes thinking and academic success skills that promote social skills.
5	Parent Advisory Council	10/20/2010	Have parents and students involved in development of curriculum.	Will continue to get student/parent input through Curriculum Advisory Assembly and Curriculum Advisory Committee.
6	Councils on Teaching and Learning	10/28/2010	Revise recommended books to include those with more current copyright dates.	This is part of the development process.
7	Curriculum Advisory Assembly	9/21/2010	Does this mean that science and social studies have to be embedded into other instruction or can they be stand-alone subjects for instruction?	Science and social studies will be integrated with other content areas and taught separately.
8	Down Syndrome Network of Montgomery County and by Ricki Sabia, associate director of the National Down Syndrome Society Policy Center, chair of the National UDL Task Force, and member of the Maryland UDL Task Force	11/9/2010	Although elements of universal design for learning (UDL) are mentioned in the superintendent's memorandum to the Board of Education on the EIC Framework, the commenter could not find UDL mentioned anywhere in the framework. Although *Understanding by Design* and *Differentiated Instruction and Resources* are cited, they are not a sufficient basis for a UDL curriculum.	UDL specifically will be included in the framework in addition to being incorporated into the design of the curriculum (instruction and assessment.)
9	Down Syndrome Network of Montgomery County and by Ricki Sabia, associate director of the National Down Syndrome Society Policy Center, chair of the National UDL Task Force, and member of the Maryland UDL Task Force	11/9/2010	The means for achieving the goals and objectives of a curriculum must be separate from the stated goals and objectives. Many of the goals and objectives in the EIC meet this criterion by using broad terms, which allow students to demonstrate their knowledge and skills using a variety of means as required, consistent with the principles of UDL. However, EIC also uses more limited terms, such as write, explain, describe, narrate, and dictate, which prevent students from showing what they can do if they have difficulty communicating in these ways, either because of a disability or because of limited English proficiency.	The framework dictates the goals, not the "how" of instruction. Development team will review and monitor the terms used to assess student learning. As the curriculum is implemented, multiple models for the "how" to implement will be included to represent a broad spectrum of student readiness.
10	Curriculum Advisory Assembly	9/21/2010	Include handwriting and keyboarding instruction.	Handwriting is part of Reading Language Arts curriculum and keyboarding is included in Information Literacy curriculum.
11	Curriculum Advisory Assembly	9/21/2010	Is there too much for teachers to teach all subjects?	This is the same amount of curriculum as previously required. Through integration with the thinking and academic success skills, instructional time will be maximized.
12	Curriculum Advisory Assembly	9/21/2010	Create plan that will continue through Grade 12.	At this point, the EIC is a kindergarten through Grade 5 project.
13	Curriculum Advisory Assembly	9/21/2010	Will there be more lesson plans available?	There are 5-8 sample learning tasks per week per content. Teachers also can upload lessons posted by their peers.
14	Curriculum Advisory Assembly	9/21/2010	Provide access to teachers at home.	Teachers currently have access to the EIC at home via the Web.
15	Curriculum Advisory Assembly	9/21/2010	Comparison of cross-curriculum areas by week of instruction.	This view currently is available.

#	Name/Group	Date	Recommendation or Consideration	Response
16	Curriculum Advisory Assembly	9/21/2010	Build concrete materials and guides so that students aren't back to learning same topics at same speed during same period, at the same period.	Paper guides will not be produced. The online site contains the material and instructional sequence that would be in a paper guide plus additional digital features and resources.
17	MCCPTA Focus Group	9/23/2010	To give students time to think, the learning pace will be slower.	Pacing is being considered as the EIC is developed.
18	Curriculum Advisory Committee	10/27/2010	If best learning occurs in break-out groups, can students be grouped more homogeneously for reading, math?	Small group instruction regularly occurs for reading and math, and other subjects, as appropriate.
19	MCCPTA Focus Group	11/8/2010	Offer online learning for students.	Not yet available.
20	MCCPTA Focus Group	11/8/2010	Offer more flexibility on learning for students.	What students learn is non-negotiable. How they learn, and how they demonstrate their learning, varies from school to school and from teacher to teacher, based on student needs.
21	Curriculum Advisory Assembly	9/21/2010	Don't forget about professional training. Not just on technology and process training, but professional effectiveness on skills.	The focus of professional development will continue to be instructional planning, although use of the online resources also will be covered.
22	Curriculum Advisory Assembly	9/21/2010	How will new teachers be supported?	Same as currently; new teacher orientation, mentoring, support from staff development teacher and reading specialist, as well as grade-level team.
23	Curriculum Advisory Assembly	9/21/2010	Strongly recommend that administrators and secondary teacher become familiar with EIC.	Great idea. Will be planned.
24	MCCPTA Focus Group	9/23/2010	Increase teacher professional development.	Voluntary teacher trainings as well as professional development for administrators are planned throughout the school year.
25	Parent Advisory Council	10/20/2010	Rotate teachers to different schools to help roll out EIC.	Some of this already occurs due to teacher choice.
26	MCCPTA Focus Group	9/23/2010	Concerned that if professional development is limited to online, it will be restrictive. Some teachers may not share the successes or more importantly what they did not achieve with their class for fear of retribution from principal and/or lead teacher.	Voluntary teacher trainings as well as professional development for administrators are planned throughout the school year.
27	Curriculum Advisory Committee	10/27/2010	Provide training using sample lesson plans.	Use of lesson plans currently is part of training.
28	Curriculum Advisory Committee	10/27/2010	Provide collaborative planning time.	This is a school-based practice.
29	Councils on Teaching and Learning	10/28/2010	Hit home that this is "descriptive, rather than prescriptive."	
30	Councils on Teaching and Learning	10/28/2010	Need to focus on social network aspect of site.	We will continue to send this message.
31	Curriculum Advisory Assembly	9/21/2010	How can parents have access to what is being taught?	Future design plans include a parent portal.
32	Curriculum Advisory Assembly	9/21/2010	Provide resources for parents to reinforce skills at home.	Although future design plans include a parent portal, currently there is a parent website.
33	MCCPTA Focus Group	9/23/2010	Parents will have higher capability to do home school.	The parent portal will support enhanced parent engagement.
34	MCCPTA Focus Group	9/23/2010	Add portals for parents.	See # 31, 32, 33, and 37.
35	MCCPTA Focus Group	9/23/2010	More communication with parents to allow them to be knowledgeable and support learning at school.	See # 31, 32, 33, and 37.
36	MCCPTA Focus Group	9/23/2010	Have parent be able to view EIC and *my* MCPS as read only to see parts that are not considered private for teachers.	See # 31, 32, 33, and 37.
37	Parent Advisory Council	10/20/2010	Develop tools for parents to support EIC at home.	Parent resources are part of the design of the EIC.
38	Curriculum Advisory Committee	10/27/2010	Provide list of cultural arts programs that can complement learning.	EIC provides greater focus on Science and Social Studies.

#	Name/Group	Date	Recommendation or Consideration	Response
39	Curriculum Advisory Assembly	9/21/2010	Need guidance for special education and ESOL students.	Strategies and support for teaching students with disabilities and English language learners is part of the EIC design.
40	Parent Advisory Council	10/20/2010	Explain how EIC differentiates instruction for varying levels.	Based on the skill being taught, different responses are part of differentiation.
41	Parents Advisory Council	10/20/2010	How does this curriculum tackle different types of learners?	Principles of UDL are incorporated into the EIC to accommodate different learning styles and needs. Soliciting different responses is another form of differentiation.
42	Curriculum Advisory Assembly	9/21/2010	Make more explicit how curriculum is more accessible to students with disabilities.	This will be considered as the development continues.
43	Curriculum Advisory Assembly	9/21/2010	Integrate Fundamental Life Skills (FLS) curriculum into EIC.	The FLS curriculum is a separate curriculum for students who are certificate bound.
44	Curriculum Advisory Assembly	9/21/2010	How or can links to ideas for subgroups be added? Ideas to adapt or differentiate lesson for LEP students.	Principles of UDL are incorporated into the EIC to accommodate different learning styles and needs. Soliciting different responses is another form of differentiation.
45	MCCPTA Focus Group	9/23/2010	Supplement this with integrated content scope and sequence to promote differentiation for advanced level learners across disciplines.	The EIC provides a marking period overview for each quarter that shows integrated content scope and sequence.
46	Curriculum Advisory Assembly	9/21/2010	Would lesson plans change for class level? (more advanced/basic)	Lesson plans include strategies for differentiation based students' needs. How the curriculum is delivered, and the way in which students demonstrate their knowledge, also can be differentiated based on students' needs.
47	Curriculum Advisory Assembly	9/21/2010	Make sure ideas/curriculum evolve with students' grades/ages.	The curriculum is designed to develop skills and concepts by grade level and content.
48	Curriculum Advisory Assembly	9/21/2010	Can students have some limited access with a social networking component?	We will explore in future iterations of the EIC.
49	Curriculum Advisory Assembly	9/21/2010	How will teachers be held accountable for online learning? Will it be incorporated into teacher evaluations?	Teacher register for voluntary trainings using Professional Development Online (PDO), a technology application that archives a staff member's professional development activity.
51	Curriculum Advisory Assembly	9/21/2010	Teacher/leadership access of progress through curriculum data to monitor completion of curriculum along suggested timelines.	Monitoring implementation of the curriculum is a local school-based responsibility.
52	Curriculum Advisory Assembly	9/21/2010	Are there Look Fors for administrators?	Look Fors for principals and teachers are being developed.
53	Parent Advisory Council	10/20/2010	MCPS should set up testing of curriculum.	Through the i3 Grant, an evaluation of the EIC will be conducted.
54	Parent Advisory Council	10/20/2010	MCPS can collect teacher plans and innovations into a database.	As teachers use the online learning community to post and rate lessons, archiving into retrievable storage will be investigated.
55	Down Syndrome Network of Montgomery County and by Ricki Sabia, associate director of the National Down Syndrome Society Policy Center, chair of the National UDL Task Force, and member of the Maryland UDL Task Force	11/9/2010	In many of the places where assessments are mentioned in the EIC document, there is no discussion of how UDL principles should be incorporated in assessment design and implementation. Assessments are more accurate if we give students the tools they need to demonstrate what they know, as long as those tools do not affect the construct being tested.	The integration of UDL into assessment is a part of the development process.

#	Name/Group	Date	Recommendation or Consideration	Response
56	Curriculum Advisory Assembly	9/21/2010	Not all schools have high speed Internet connections.	Currently there are 19 out of 131 elementary schools with FiberNet connectivity (100 Mbps). The remaining elementary schools use Verizon Frame Relay connectivity (up to 1.5 Mpbs). County funding for future FiberNet construction includes 31 additional elementary schools for FY 2011. Montgomery County was recently awarded an *American Reinvestment and Recovery Act of 2009* (ARRA) grant to complete the FiberNet installations for the remaining elementary schools and special centers (approximately 81 sites). Work is scheduled for completion before the end of calendar year 2013.
57	MCCPTA Focus Group	9/23/2010	Put more content and instruction online. Students may eventually learn online.	More content continues to be online.
58	MCCPTA Focus Group	9/23/2010	Technology availability is different across clusters and across county.	All elementary schools received technology updates during the summer of 2010, including Internet Explorer 8.0 and Silverlight, which are required to access EIC.
59	Parent Advisory Council	10/20/2010	What if website goes down?	There is redundant backup as part of the technical design of the EIC.
60	Parent Advisory Council	10/20/2010	Are teachers trained to use the website? Teachers less proficient with computers might not be able to access all resources.	See responses # 21, 22, and 24
	Feedback from MCPS Website			
61	Stacey Palosky	10/9/2010	When looking in depth at the curriculum framework, the math curriculum seems quite weak. While I appreciate the desire and work done to consider giving more depth to number-focused areas, this math curriculum would not at all challenge my two sons (a 1st grader currently doing 2nd and some 3rd grade math and a 3rd grader doing 4th and some 5th grade math). No money until 2nd grade? My 1st grader could count any amount of money in kindergarten. Same thing with telling time. Addition/subtraction sums to 20 as the 2nd grade criteria? My 1st grader can mentally do double digit addition and subtraction now and is ready to learn regrouping. Multiplication facts only to 81 in 3rd grade? Again, my current third grader is doing timed tests in his 4th grade math class right now that go through the 12 timestables. I have not thought the current math curriculum is perfect and have had to supplement w/Singapore Math -- particularly in the early grades -- but this curriculum seems worse, not better. Please, please, consider a program much more like Singapore Math. That program started the basics of multiplication and Please, please, lay out this curriculum in a way that it	The math content standards in the EIC are based on the Common Core State Standards (CCSS), which are widely regarded as a challenging math curriculum designed to be competitive with other nations, such as Singapore and Japan, that are experiencing success in math.

#	Name/Group	Date	Recommendation or Consideration	Response
62	Carolyn Thompson	10/9/2010	It is ESSENTIAL that MCPS start modeling the behavior it expects from parents at home. Create a video about a topic, show how the topic is being integrated within the classrooms, and demonstrate the parent supporting the subject at home. Many parents, both first generation American and otherwise, do not know what is expected of them at home. They do not know what this LOOKS like. You may tell them, but this IS different for every parent. There should be parent training at least once a year.	Parent resources and a parent portal are both part of the EIC design.
63	Elena Silva	10/20/2010	If there's any way to include handwriting (with the increased emphasis on writing), please do so! I have a first grader who is on the path to becoming one of the high school students that write illegibly. I'm trying to teach my 3-year old how to properly form letters so she's not in the same boat once she reaches kindergarten.	EIC provides greater focus on Science and Social Studies.
64	Dr. Elizabeth Joseloff	10/18/2010	More emphasis should be given on science and scientific facts. The U.S. is losing its place as a leader in the scientific community due in part to the lack of knowledge and enthusiasm of our youth to science. More hands-on science experiments are needed along with the understanding of forming and testing hypotheses. More focus is needed on basic American history. Children in elementary school are not learning about how our country was formed, how our government operates, etc.	Through an integrated approach, more time can be allocated for Science. American history is part of the elementary Social Studies curriculum.
65	Kaushal Chauhan	10/16/2010	For right now it seems well planned and if need be some requisite changes can be made later.	Continuous improvement is part of the development process.
66	MCPS Teacher		Implement after it has been written, piloted, reviewed, and revised.	There is a pilot component to the development process.
67	FancyKats@verizon.net	10/14/2010	The Autism Society of Montgomery County, MD supports the comments submitted by Ricki Sabia and the Down Syndrome Network of Montgomery County (pasted below) to make sure the Elementary Integrated Curriculum fully incorporates the Universal Design for Learning principles in the planning and in the implementation of instruction, as well as in the assessment of all students.	See responses to # 8, 9, and 55.

Attachment E

Montgomery County Public Schools
Elementary Integrated Curriculum Framework and Thinking and Academic Success Skills
Additional Comments
Fall 2010

ISSUE	RESPONSE
Availability of Assessments	All summative assessments remain the same with the exception of mathematics. The Montgomery County Public Schools Assessment Program in Primary Reading will continue to be administered three times a year using the hand-helds. Based on the alignment with the Common Core State Standards (CCSS), mathematics unit assessments are being replaced. Since many of the indicators in EIC are the same as those in the previous curriculum, teachers can use the formative assessments previously developed. Additionally, all sample learning tasks in EIC include a formative check for understanding.
Alignment of Standards-based Grading and Reporting with the EIC	With the adoption of CCSS, standards-based grading and reporting requires realignment. EIC provides a good way to align standards-based grading and reporting to CCSS and incorporate feedback from the elementary Online Achievement and Reporting System schools to end up with a better overall result. Standards-based grading and reporting will be fully aligned with EIC for implementation next year. It is anticipated that specifics will be shared with teachers and principals in the spring.
Availability of Materials Referenced in the EIC	Sample learning tasks will reference a book, for example, "use a book such as *Chicka Chicka Boom Boom,* or a similar book that develops concepts of print…" Books referenced currently are available in most schools. In cases in which the EIC development team believes a title is not available and is essential to the curriculum, the book is purchased centrally and sent to schools.
Differentiation	Sample learning tasks show ways to reach a variety of students, including English langue learners, student with disabilities, and advanced students. A new feature that will be added to address differentiation based on teacher feedback is an "if-then" statement with each formative check for understanding in each sample learning task. "If a student already knows this, then…" There also are general tips for implementing EIC with different level students. It is important to note that the most essential aspect of differentiation occurs during small group guided instruction. This does not change with EIC.
Professional Development	Online training has been offered to all teachers, including webinars that are archived for teachers to review at any time, and short, professional development pieces, using video and/or PowerPoint that target essential skills. A series of voluntary face-to-face trainings is being conducted in a computer lab setting for all teachers. Additionally, upon request, the EIC Development Team conducts face-to-face training for school instructional leaders, including administrators, staff development teacher, math content coach, reading specialist, and art, music, and physical education teachers.