

NEWPORT MILL MIDDLE SCHOOL AN IB WORLD SCHOOL

MIDDLE YEARS PROGRAMME PARENT HANDBOOK

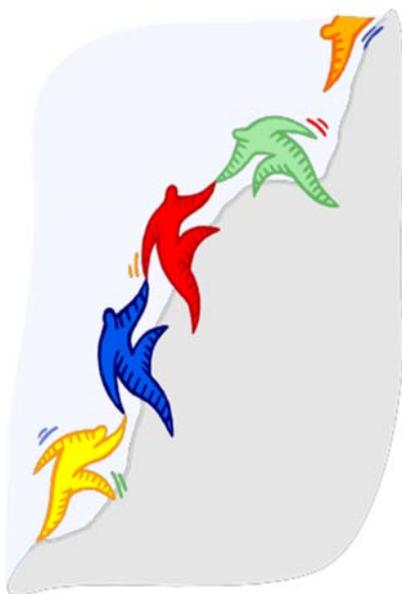


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The International Baccalaureate Learner Profile

The IB learner profile represents 10 attributes valued by IB World Schools. This profile is the IB mission statement translated into a set of learning outcomes for the 21st Century. The learner profile provides a long-term vision of education. It is a set of ideals that can inspire, motivate, and focus the work of schools and teachers, uniting them toward a common purpose.

<u>ATTRIBUTE</u>	<u>DESCRIPTION</u>
Inquirers	We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.
Knowledgeable	We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.
Thinkers	We use critical and creative thinking skills to analyze and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
Communicators	We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.
Principled	We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.
Open-minded	We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
Caring	We show empathy, compassion, and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.
Risk-takers	We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
Balanced	We understand the importance of balancing different aspects of our lives — intellectual, physical, and emotional — to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.
Reflective	We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB Middle Years Programme

The MYP is designed for students ages 11 to 16. It provides a framework of learning that encourages students to become creative, critical, and reflective thinkers. The MYP emphasizes intellectual challenge, encouraging students to make connections between their studies in traditional subjects and the real world. It fosters the development of skills for communication, intercultural understanding, and global engagement - essential qualities for young people who are becoming global leaders.

NMMS has been authorized to offer the IB MYP since 2007. It builds upon skills and units of inquiry learning. IB MYP teaching and learning “focuses on the development of the whole child as an inquirer, both in the classroom and in the world outside” (IB). The IB MYP also relies on connecting classroom pedagogical practices and content to the world outside through the Global Contexts and the Learner Profile.

The IB MYP and Newport Mill Middle School Philosophy

The IB MYP is a student-centered program that emphasizes **holistic learning, intercultural awareness, and strong communication skills**. Thus, through its school philosophy, mission, and curriculum, NMMS aims to expose students to as many different subjects, skills, and experiences so that students will learn to see knowledge as an interrelated whole. Students will have the opportunity to show their various strengths while gaining a sense of personal achievement. Additionally, the curriculum reflects and is responsive to the different perspectives of all our students, guiding them in forming their own international outlook.

It is vital that students develop an awareness of their own learning process and the necessary skills to continue learning throughout life. The curriculum seeks to shift the emphasis from teacher-led instruction to student-led learning wherever possible. A focus on higher-order thinking skills gives students opportunities to explore their expanding concerns and their growing awareness of themselves and the world in ways that develop sound judgment.

The IB Mission Statement

The International Baccalaureate® aims to develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end, the organization works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.

Newport Mill Middle School Mission Statement

The mission of Newport Mill Middle School is to provide an educational experience that uses STEM-centric teaching and learning to produce highly successful readers, writers, and problem-solvers who gain intercultural understanding and respect by addressing real-world problems through authentic assessment.

The IB MYP Curriculum Model

At NMMS, all content classes are considered MYP classes. MYP encompasses 8 main subject groups. Each class at NMMS falls into one or more of these subject groups:

<u>MYP Subject Group</u>	<u>MCPS Course at NMMMS</u>
Arts (visual and performing)	Art, Information and Communication Technology, Chorus, Orchestra, Band
Design	Information and Communication Technology
Individuals & Societies	World Studies, Social Studies, US History
Language Acquisition	French, Spanish, ESOL
Language & Literature	English, Reading
Mathematics	Math, IM, Geometry, Algebra 1
Physical & Health Education	PE, Health
Sciences	Investigations in Science 6 and 7, Investigations in Earth & Space Systems

MYP classes at NMMS implement the same curriculum as other MCPS middle schools. Teachers present this curriculum focused through the MYP philosophy and framework, which includes:

- An awareness of international and cultural influences related to the topic of study
- An emphasis on interdisciplinary instruction
- An emphasis on the process of learning
- An emphasis on the development of critical thinking skills
- An emphasis on independent work habits and research skills
- An emphasis on student reflection



A Concept-Driven Curriculum

A concept is a big idea — a principle or conception that is enduring, the significance of which goes beyond aspects such as particular origins, subject matter, or place in time. Concepts represent the vehicle for students' inquiry into issues and ideas of personal, local, and global significance, allowing a subject to be explored. The MYP identifies prescribed **key concepts** and **related concepts** that ensure the development of a rigorous curriculum and promote a shared community of practice among schools.

A concept-based model is used in the MYP because it encourages students to:

- Process factual knowledge at a deeper intellectual level as they relate the facts to concepts and essential conceptual understandings.
- Create personal relevance, as students relate new knowledge to prior knowledge, and encourage understanding of cultures and environments across global contexts through the transfer of knowledge
- Bring their personal intellect to the study as they use a key concept to personally focus on the unit topic in order to increase motivation for learning
- Increase fluency with language as students use factual information to explain and support their deeper conceptual understanding
- Achieve higher levels of critical, creative, and conceptual thinking as students analyze complex global challenges and create greater subject depth through the study of discipline-specific related concepts

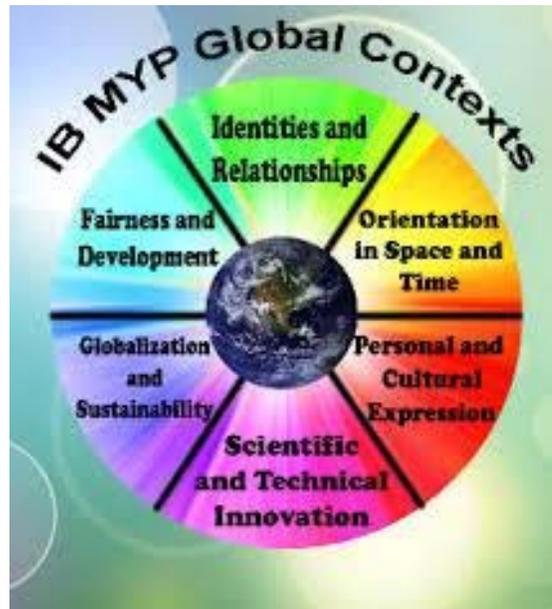
Global Contexts

Subject content is organized around themes or perspectives called Global Contexts. They are designed to encourage the students to make worthwhile connections between the real world and classroom learning.

Teaching and learning in the MYP involves understanding concepts in context. Global contexts provide a common language for powerful contextual learning, identifying specific settings, events, or circumstances that provide more concrete perspectives for teaching and learning. When teachers select a global context for learning, they are answering the following questions:

- Why are we engaged in this inquiry?
- Why are these concepts important?
- Why is it important for me to understand?
- Why do people care about this topic?

The six MYP global contexts inspire explorations of our common humanity and shared guardianship of the planet. They invite reflection on local, national, and global communities, as well as the real-life issues and concerns of 11- to 16-year-old students. For each MYP unit, teachers identify one global context that establishes a focus for meaningful teaching and learning in a program of international education. Over the course of their study, students encounter all six global contexts.



MYP global contexts provide common points of entry for inquiries into what it means to be internationally minded, framing a curriculum that promotes multilingualism, intercultural understanding, and global engagement.

Inquiring into subject content through a global context enables students to develop a deeper understanding of both the subject and its application in the real world.

Approaches to Learning (ATL)

Through Approaches to Learning in IB programmes, students develop skills that have relevance across the curriculum that help them “learn how to learn.”

The MYP extends the five IB Approaches to Learning (ATL) skills categories into 10 developmentally appropriate clusters. The focus of Approaches to Learning in the MYP is on helping students to develop the self-knowledge and skills they need to enjoy a lifetime of learning. ATL skills empower students to succeed in meeting the challenging objectives of MYP subject groups and prepare them for further success in the IB Diploma Programme.

Approaches to Learning (ATL) Skills Chart

Communication	I. Communication skills	
	Exchanging thoughts, messages, and information effectively	How can students communicate through interaction?
Social	Reading, writing, and using language to gather and communicate information	How can students demonstrate communication through language?
	II. Collaboration skills	
Self-management	Working effectively with others	How can students collaborate?
	III. Organization skills	
Research	Managing time and tasks effectively	How can students demonstrate organization skills?
	IV. Affective skills	
Thinking	Managing state of mind <ul style="list-style-type: none"> • Mindfulness • Perseverance • Emotional management • Self-motivation • Resilience 	How can students manage their own state of mind?
	V. Reflection skills	
Research	(Re)considering the process of learning; choosing and using ATL skills	How can students be reflective?
	VI. Information literacy skills	
Thinking	Finding, interpreting, judging, and creating information	How can students demonstrate information literacy?
	VII. Media literacy skills	
Thinking	Interacting with media to use and create ideas and information	How can students demonstrate media literacy?
	VIII. Critical thinking skills	
Thinking	Analyzing and evaluating issues and ideas	How can students think critically?
	IX. Creative thinking skills	
Thinking	Generating novel ideas and considering new perspectives	How can students be creative?
	X. Transfer skills	
Thinking	Using skills and knowledge in multiple contexts and knowledge across disciplines	How can students transfer skills and subject groups?

Every MYP unit identifies ATL skills that students will develop through their inquiry and demonstrate in the unit's formative (if applicable) and summative assessments. Many ATL skills directly support the attainment of subject-group objectives.

Service as Action, through Community Service

Action and service have always been shared values of the IB community.

Students take action when they apply what they are learning in the classroom and beyond. IB learners strive to be caring members of the community who demonstrate a commitment to service—making a positive difference to the lives of others and to the environment.

“IB Learners strive to be caring members of the community who demonstrate a personal commitment to service, and act to make a positive difference to the lives of others and to the environment. Through responsible action, tightly connected with sustained inquiry and critical reflection, young people and adults can develop the kind of attributes described by the learner profile that are essential for success in future academic pursuits and for adult life.”

MYP: From Principles to Practice

Objectives of MYP Community Service

Students engaged in service become empowered to make choices about how to take thoughtful and positive action. By committing to community service, they will:

- Become more aware of their own strengths and areas for growth
- Undertake challenges that develop new skills
- Discuss, evaluate, and plan student-initiated activities
- Work collaboratively with others
- Develop international-mindedness through global engagement, multilingualism, and intercultural understanding
- Consider the ethical implications of their actions



When and how do I earn the service hours?

The hours need to be served outside of NMMS class time. An activity for which you receive payment, school credit, an achievement/recognition award, a scouting badge, an internship, or personally benefits a family member may **not** be used to satisfy the community service expectations.

How do I meet the service expectations?

- Discuss Service as Action opportunities with your teachers and parents
- Get a signature from an adult at the activity you are involved in
- Complete the Service as Action Reflection form (see next page)
- Return the form to Ms. Kleffman, the MYP Coordinator

Service includes:

- **Awareness**: being aware of the community and its needs
- **Action**: involvement and service in the community; providing for a need
- **Reflection**: looking back and thinking about the value of what you did—to and for the community and yourself

The Capstone Community Project: A Culminating Project for 8th-Graders

The Capstone Community Project focuses on community and service, encouraging students to explore their right and responsibility to implement service as action in the community.

The community project gives students an opportunity to develop awareness of needs in various communities and address those needs through service learning. As a consolidation of learning, the community project engages in a sustained, in-depth inquiry leading to service as action in the community. The community project may be completed individually or by groups of a maximum of three students.



MYP projects are student-centered and age-appropriate, and they enable students to engage in practical explorations through a cycle of inquiry, action, and reflection. MYP projects help students to develop the attributes of the IB learner profile; provide students with an essential opportunity to demonstrate ATL skills developed through the MYP; and foster the development of independent, lifelong learners.

Community Project Objectives

The objectives of the community project state the specific targets that are set for learning. They define what students will accomplish as a result of completing the community project. Students must address all strands of all four objectives in the MYP community project.

<p>Objective A: Investigating Students should:</p> <ol style="list-style-type: none"> define a goal to address a need within a community, based on personal interests identify prior learning and subject-specific knowledge relevant to the project demonstrate research skills. 	<p>Objective B: Planning Students should:</p> <ol style="list-style-type: none"> develop a proposal for action to serve the need in the community plan and record the development process of the project demonstrate self-management skills.
<p>Objective C: Taking action Students should:</p> <ol style="list-style-type: none"> demonstrate service as action as a result of the project demonstrate thinking skills demonstrate communication and social skills. 	<p>Objective D: Reflecting Students should:</p> <ol style="list-style-type: none"> evaluate the quality of the service as action against the proposal reflect on how completing the project has extended their knowledge and understanding of service learning reflect on their development of ATL skills.

Achievement Level	Criterion A: Investigating	Criterion B: Planning	Criterion C: Taking Action	Criterion D: Reflecting
0	The student does not achieve a standard described by any of the descriptors below.	The student does not achieve a standard described by any of the descriptors below.	The student does not achieve a standard described by any of the descriptors below.	The student does not achieve a standard described by any of the descriptors below.
1–2	The student: i. states a goal to address within the community, based on personal interests, but this may be limited in depth or accessibility ii. identifies prior learning and subject-specific knowledge, but this may be limited in occurrence or relevance iii. demonstrates limited research skills.	The student: i. develops a limited proposal for action to serve the need in the community ii. presents a limited or partial plan and record of the development process of the project iii. demonstrates limited self-management skills.	The student: i. demonstrates limited service as action as a result of the project ii. demonstrates limited thinking skills iii. demonstrates limited communication and social skills.	The student: i. presents a limited evaluation of the quality of the service as action against the proposal ii. presents limited reflections on how completing the project has extended their knowledge and understanding of service learning iii. presents limited reflections on their development of ATL skills.
3–4	The student: i. outlines an adequate goal to address a need within a community, based on personal interests ii. identifies basic prior learning and subject-specific knowledge relevant to some areas of the project iii. demonstrates adequate research skills.	The student: i. develops an adequate proposal for action to serve the need in the community ii. presents an adequate plan and record of the development process of the project iii. demonstrates adequate self-management skills.	The student: i. demonstrates adequate service as action as a result of the project ii. demonstrates adequate thinking skills iii. demonstrates adequate communication and social skills.	The student: i. presents an adequate evaluation of the quality of the service as action against the proposal ii. presents adequate reflections on how completing the project has extended their knowledge and understanding of service learning iii. presents adequate reflections on their development of ATL skills.
5–6	The student: i. defines a clear and challenging goal to address a need within a community, based on personal interests ii. identifies prior learning and subject-specific knowledge generally relevant to the project iii. demonstrates substantial research skills.	The student: i. develops a suitable proposal for action to serve the need in the community ii. presents a substantial plan and record of the development process of the project iii. demonstrates substantial self-management skills.	The student: i. demonstrates substantial service as action as a result of the project ii. demonstrates substantial thinking skills iii. demonstrates substantial communication and social skills.	The student: i. presents a substantial evaluation of the quality of the service as action against the proposal ii. presents substantial reflections on how completing the project has extended their knowledge and understanding of service learning iii. presents substantial reflections on their development of ATL skills.
7–8	The student: i. defines a clear and highly challenging goal to address a need within a community, based on personal interests ii. identifies prior learning and subject-specific knowledge that is consistently highly relevant to the project iii. demonstrates excellent research skills.	The student: i. develops a detailed, appropriate and thoughtful proposal for action to serve the need in the community ii. presents a detailed and accurate plan and record of the development process of the project iii. demonstrates excellent self-management skills.	The student: i. demonstrates excellent service as action as a result of the project ii. demonstrates excellent thinking skills iii. demonstrates excellent communication and social skills.	The student: i. presents an excellent evaluation of the quality of the service as action against the proposal ii. presents excellent reflections on how completing the project has extended their knowledge and understanding of service learning iii. presents detailed and accurate reflections on their development of ATL skills.

Project topics may be creative or research-based, and, ideally, they should reflect a student’s personal interest. Students begin the Community Project process in mid-November and finish in early April. The stages of the process are documented by a journal that is assessed. While there is some recognition of the project through the criteria, a student’s record of, research about, and reflection on the process is a significant part of the final result. Each student receives a Community Project Guide (available on the school website with appendices) and is expected to bring it to meetings with their supervisor. Through the use of a process journal, the supervisor will provide support and guidance through the Community Project process.

To celebrate the end of the Community Project process, the school hosts a Community Project Showcase during an afternoon and evening with presentations and performances.

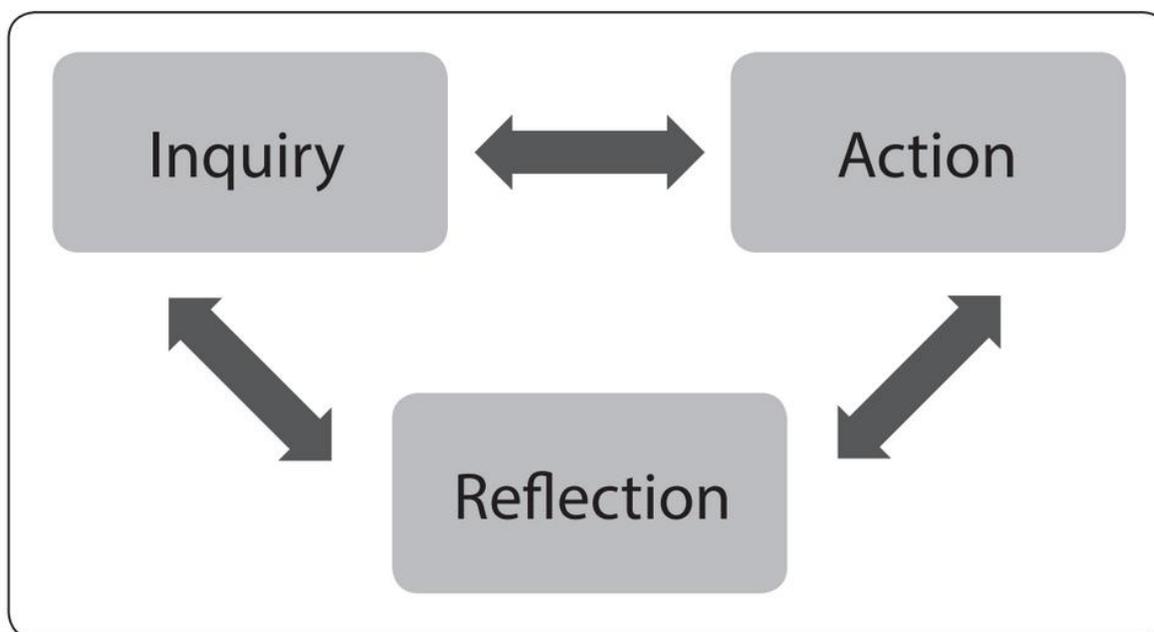


Figure 2

The Objectives of the Subject Areas of the MYP

By the end of 8th grade, students should be able to meet all strands of each subject area objective. The following pages provided the main objectives of each subject area, which directly corresponds with the assessment criteria for each subject area (which will appear in the section following this one).

Group 1: The Arts

Visual Art, Music, Orchestra, and Band

The arts are a universal form of human expression and a unique way of knowing that engage us in affective, imaginative and productive activity. Learning through the arts helps us to explore, shape and communicate our sense of identity and understanding of the world, while providing opportunities to develop self-confidence, resilience and adaptability. The IB MYP arts value the process of creating artwork as much as the finished product.

Main Objectives

The arts objectives interrelate with each other and form the basis of the student's experience in the arts. Personal engagement surrounds the student at the center and connects directly with each of the other objectives. The course objectives are closely aligned to the four arts assessment criteria:

A) Knowing and Understanding

- Demonstrate knowledge and understanding of the art form studied, including concepts, processes, and the use of subject-specific terminology
- Demonstrate an understanding of the role of the art form in original or displaced contexts
- Use acquired knowledge to purposefully inform artistic decisions in the process of creating artwork

B) Developing Skills

- Demonstrate the acquisition and development of the skills and techniques of the art form studied
- Demonstrate the application of skills and techniques to create, perform, and/or present art

C) Thinking Creatively

- Develop a feasible, clear, imaginative, and coherent artistic intention
- Demonstrate a range and depth of creative-thinking behaviors
- Demonstrate the exploration of ideas to shape artistic intention through to a point of realization

D) Responding

- Construct meaning and transfer learning to new settings
- Create an artistic response that intends to reflect or impact on the world around them
- Critique the artwork of self and others

Group 2: Design

Information and Communication Technology

MYP Design is compulsory for all students in Grades 6-8 and covers two areas, digital design and product design.

Main Objectives

The course objectives are aligned to the four design assessment criteria:

A) Inquiring and Analyzing

- Explain and justify the need for a solution to a problem for a specified client/target audience
- Identify and prioritize the primary and secondary research needed to develop a solution to the problem
- Analyze a range of existing products that inspire a solution to the problem
- Develop a detailed design brief, which summarizes the analysis of relevant research

B) Developing ideas

- Develop a design specification, which clearly states the success criteria for the design of a solution
- Develop a range of feasible design ideas, which can be correctly interpreted by others
- Present the final chosen design and justify its selection
- Develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution

C) Creating the Solution

- Construct a logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow to create the solution
- Demonstrate excellent technical skills when making the solution
- Follow the plan to create the solution, which functions as intended
- Fully justify changes made to the chosen design and plan when making the solution
- Present the solution as a whole

D) Evaluating

- Design detailed and relevant testing methods, which generate data, to measure the success of the solution
- Critically evaluate the success of the solution against the design specification
- Describe how the solution could be improved
- Explain the impact of the solution on the client/target audience

Group 3: Individuals and Societies

World Studies, Social Studies, and US History

The aim of MYP Individuals and Societies is to encourage students to gain and develop knowledge, conceptual understanding, research skills, analytical and interpretive skills, and communication skills, contributing to the development of the student as a whole. Individuals and Societies also aim to encourage students to respect and understand the world around them and to provide a skills base to facilitate further study. This is achieved through the study of individuals, societies, and environments in a wide context: historical, contemporary, geographical, political, social, economic, religious, technological, and cultural.

Main Objectives

Students develop factual and conceptual knowledge about individuals and societies.

A) Knowing and Understanding

- Use terminology in context
- Demonstrate knowledge and understanding of subject-specific content and concepts through descriptions, explanations, and examples

B) Investigating

- Formulate a clear and focused research question and justify its relevance
- Formulate and follow an action plan to investigate a research question
- Use research methods to collect and record relevant information
- Evaluate the process and results of the investigation

C) Communicating

- Communicate information and ideas using an appropriate style for the audience and purpose
- Structure information and ideas in a way that is appropriate to the specified format
- Document sources of information using a recognized convention

D) Thinking Critically

- Discuss concepts, issues, models, visual representation, and theories
- Synthesize information to make valid arguments
- Analyze and evaluate a range of sources/data in terms of origin and purpose, examining value and limitations
- Interpret different perspectives and their implications

Group 4: Language Acquisition

ESOL, French, Spanish

The aims of the study of modern foreign languages are to acquire the basis of a means of communication and an understanding of the linguistic, cultural, and social elements of the communities where these languages are spoken. In addition, we aim to develop an appreciation of a variety of literary and non-literary texts, thus giving access to multiple sources of information. Finally, it is hoped that this activity will be life-long and enjoyable.

Main Objectives

Our objectives, which are achieved at different levels in accordance with the criteria of the students' placement, are to be able to communicate information, ideas, and opinions and to demonstrate comprehension of these, both orally and in writing. In addition, students should be able to identify main ideas and supporting details and draw conclusions in these same ways, using appropriate structures and vocabulary. In the oral context, this should be done with comprehensible pronunciation and intonation. They should be able to request and provide information in formal and informal exchanges related to the Global Contexts and to cultural and international issues.

Language Acquisition objectives are organized into four communicative processes:

A) Comprehending Spoken and Visual Text

- Listen for specific purposes and respond to show understanding
- Interpret visual text that is presented with spoken text
- Engage with the text by supporting opinion and personal response with evidence and examples from the text

B) Comprehending Written and Visual Text

- Read for specific purposes and respond to show understanding
- Interpret visual text that is presented with written text
- Engage with the text by supporting opinion and personal response with evidence and examples from the text

C) Communicating in Response to Spoken, Written and Visual Text

- Interact and communicate in various situations
- Express thoughts, feelings, ideas, opinions, and information in spoken and written form
- Speak and write for specific purposes

D) Using Language in Spoken and Written Form

- Organize thoughts, feelings, ideas, opinions, and information in spoken and written form
- Develop accuracy when speaking and writing in the target language

Group 5: Language and Literature

English, Reading

Language and Literature is an academically rigorous study of both language and literature, which aims to equip students with linguistic, analytical, and communicative skills.

Main Objectives

The study of MYP Language and Literature is to encourage and enable students to:

- Use language as a vehicle for thought, creativity, reflection, learning, self-expression, and social interaction
- Develop critical, creative, and personal approaches to studying and analyzing literary and non-literary works
- Develop a lifelong interest in reading widely, and apply language skills in a variety of real-life contexts

A) Analyzing

- Analyze the content, context, language, structure, technique, and style of text(s) and the relationships among texts
- Analyze the effects of the creator's choices on an audience
- Justify opinions and ideas, using examples, explanations, and terminology
- Evaluate similarities and differences by connecting features across and within genres and texts

B) Organizing

- Employ organizational structures that serve the context and intention
- Organize opinions and ideas in a sustained, coherent, and logical manner
- Use referencing and formatting tools to create a presentation style suitable to the context and intention

C) Producing Text

- Produce texts that demonstrate thought, imagination, and sensitivity while exploring and considering new perspectives and ideas arising from personal engagement with the creative process
- Make stylistic choices in terms of linguistic, literary, and visual devices, demonstrating awareness of impact on an audience
- Select relevant details and examples to develop ideas

D) Using Language

- Use appropriate and varied vocabulary, sentence structures, and forms of expression
- Write and speak in a register and style that serve the context and intention
- Use correct grammar, syntax, and punctuation
- Spell (alphabetic languages), write (character languages), and pronounce with accuracy
- Use appropriate non-verbal communication techniques

Group 6: Mathematics

Math 6, Investigations into Mathematics, Geometry, Algebra 1 & 2

MYP Mathematics aims to equip all students with the knowledge, understanding and intellectual capabilities to address further courses in mathematics, as well as to prepare those students who will use mathematics in their workplace and life in general.

Main Objectives

In MYP mathematics, the four main objectives support the IB Learner Profile, promoting the development of students who are knowledgeable, inquirers, communicators and reflective learners.

A) Knowing and Understanding

- Select appropriate mathematics when solving problems in both familiar and unfamiliar situations
- Apply the selected mathematics successfully when solving problems
- Solve problems correctly in a variety of contexts

B) Investigating Patterns

- Select and apply mathematical problem-solving techniques to discover complex patterns
- Describe patterns as general rules consistent with findings
- Prove, or verify and justify, general rules

C) Communicating

- Use appropriate mathematical language (notation, symbols, and terminology) in both oral and written explanations
- Use appropriate forms of mathematical representation to present information
- Move between different forms of mathematical representation
- Communicate complete, coherent, and concise mathematical lines of reasoning
- Organize information using a logical structure

D) Applying Mathematics in Real-life Contexts

- Identify relevant elements of authentic real-life situations
- Select appropriate mathematical strategies when solving authentic real-life situations
- Apply the selected mathematical strategies successfully to reach a solution
- Justify the degree of accuracy of a solution
- Justify whether a solution makes sense in the context of the authentic real-life situation

Group 7: Physical and Health Education

PE and Health

The IB MYP program offers students a balanced Physical and Health Education curriculum with opportunities to become multi-skilled by experimenting with the main sports groups of cultures around the world.

The social aspect of collective sports activities allows students to develop autonomy and responsibility. Students also learn about safety and first aid. Individual sports activities offer students opportunities to strive for their personal best through a thorough understanding of their own limits. Partnered sports activities help students learn to manage their stress and emotions with respect to their physical effort that must be adapted to the environment and sports material.

Student learning experiences in the PE program are diverse and comprehensive, allowing students to attain knowledge and experience within a maximum of environments and situations. The PE curriculum aims to guide students with their development of self- and group-confidence as well as emotional and physical competency, which are ATL skills that will serve students with fitness management and life-long learning across the curriculum.

Main Objectives

The course objectives are assessed through four criteria:

A) Knowing and Understanding

- Explain physical and health education factual, procedural, and conceptual knowledge
- Apply physical and health education knowledge to analyze issues and solve problems set in familiar and unfamiliar situations
- Apply physical and health terminology effectively to communicate understanding

B) Planning for Performance

- Design, explain, and justify a plan for improving physical performance and health
- Analyze and evaluate the effectiveness of a plan based on the outcome

C) Applying and Performing

- Demonstrate and apply a range of skills and techniques effectively
- Demonstrate and apply a range of strategies and movement concepts effectively
- Analyze and apply information to perform effectively

D) Reflecting and Improving Performance

- Explain and demonstrate strategies that enhance interpersonal skills
- Develop goals and apply strategies to enhance performance
- Analyze and evaluate performance

Group 8: Sciences

Investigations in Science 6 and 7, Investigations in Earth and Space Systems

Science and the scientific method offer a way of learning that contributes to the development of analytical and critical thinking skills. MYP science aims to develop students as scientifically literate inquirers who are able to think critically and creatively to solve problems and make decisions affecting themselves, others, and their social and natural environments.

Main Objectives

The course objectives are closely aligned to the four science assessment criteria:

A) Knowing and Understanding

- Explain scientific knowledge
- Apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
- Analyze and evaluate information to make scientifically supported judgments

B) Inquiring and Designing

- Explain a problem or question to be tested by a scientific investigation
- Formulate a testable hypothesis and explain it using scientific reasoning
- Explain how to manipulate the variables, and explain how data will be collected
- Design scientific investigations

C) Processing and Evaluating

- Present collected and transformed data
- Interpret data and explain results using scientific reasoning
- Evaluate the validity of a hypothesis based on the outcome of the scientific investigation
- Evaluate the validity of the method
- Explain improvements or extensions to the method

D) Reflecting on the Impacts of Science

- Explain the ways in which science is applied and used to address a specific problem or issue
- Discuss and evaluate the various implications of the use of science and its application in solving a specific problem or issue
- Apply scientific language effectively
- Document the work of others and sources of information used

Interdisciplinary Teaching, Learning, and Assessment

One of the key features of the Middle Years Programme is its emphasis on interdisciplinary teaching and learning. Young learners naturally make connections between knowledge they learn in each of the disciplines to understand the world surrounding them. An ever-changing world demands that we educate individuals who can also integrate disciplines in novel and creative ways. As knowledge and information multiply exponentially, we need to educate critical thinkers who can increasingly integrate disciplinary perspectives to address complex issues.

The MYP interdisciplinary teaching and learning aims state what a teacher may expect to teach and what a student may expect to experience and learn as a result of undertaking interdisciplinary units. These aims, moreover, suggest how the student may be changed by the learning experience.

The aims of the teaching and study of MYP interdisciplinary units are to encourage students to:

- develop a deeper understanding of learning skill and applying them in meaningful contexts
- integrate conceptual learning, modes of thinking, and inquiry methods from different disciplines
- inquire into challenging ideas and issues by creating products and/or explaining phenomena
- reflect on their interdisciplinary learning process and their new and deeper understandings
- communicate the process of interdisciplinary experiences
- experience the excitement of intellectual discovery—including insights into how different disciplines complement and/or challenge one another.

Main Objectives

Objective A: Disciplinary Grounding Students should: i. demonstrate disciplinary factual, conceptual and/or procedural knowledge fit for the purpose	Objective B: Synthesizing and Applying Students should: i. synthesize disciplinary knowledge to demonstrate interdisciplinary understanding.
Objective C: Communicating Students should: i. communicate understanding following recognized conventions for selected format	Objective D: Reflecting Students should: i. reflect upon the interdisciplinary learning process, suggesting improvements. ii. evaluate the limitations and benefits of integrating disciplines for the specified purpose

IB MYP Assessment and Criteria

MYP assessment standards are consistent around the world. In order to maintain the rigor for which the IB is renowned, the MYP assessment model is criterion-related. Teachers structure varied and valid assessment tasks so that students can demonstrate achievement according to objectives defined by the IB. Tasks are assessed against established criteria, not against the work of other students.

A good curriculum develops a range of student skills. The MYP encourages teachers to assess this acquired skill set, including how to succeed in written examinations. Typical MYP assessment tasks include open-ended, problem-solving activities and investigations, organized debates, tests and examinations, hands-on experimentation, analysis, and reflection. MYP assessment is carried out by teachers, according to the criteria defined by the IB.

At NMMS, we recognize that students learn in different ways, and in keeping with a holistic view of education, we think it is important to provide a variety of different ways for students to demonstrate what they have learned. This is the guiding principle of MYP assessment.

Assessment in the IB MYP at NMMS is:

1. Varied in approach

Students are assessed in a variety of different ways: written assignments, oral presentations, role-play, debates, exhibitions, performance, tests and examinations, research papers, and peer and self-assessments.

2. Criterion-related, not deficit-based

Assessment is criteria-related, so that students are assessed against published, agreed learning objectives. These learning objectives are published for each subject and each grade level.

3. Ongoing

Assessment is on-going and reflective, allowing the students to evaluate their progress and set targets for improvement; and for the school to evaluate the measure of success in meeting specific learning objectives.

The summary chart below shows the assessment criteria for each subject, which directly corresponds with the subject objectives located on pages 13-21 of this handbook. The chart also includes the criteria for the Community Project and any MYP interdisciplinary assessment that may be used.

SUBJECT	Criterion A (max 8)	Criterion B (max 8)	Criterion C (max 8)	Criterion D (max 8)
Arts	Knowing & Understanding	Developing Skills	Thinking Creatively	Responding
Design	Inquiring & Analyzing	Developing Ideas	Creating the Solution	Evaluating
Individuals & Societies	Knowing & Understanding	Investigating	Communicating	Thinking Critically
Language Acquisition	Comprehending Spoken & Visual Text	Comprehending Written & Visual Text	Communicating in Response to Spoken, Written, & Visual Text	Using Language in Spoken & Written Form
Language & Literature	Analyzing	Organizing	Producing Text	Using Language
Mathematics	Knowing & Understanding	Investigating Patterns	Communicating	Applying Mathematics in Real-life Contexts
Physical & Health Education	Knowing & Understanding	Planning for Performance	Applying & Performing	Reflecting & Improving Performance
Sciences	Knowing & Understanding	Inquiring and Designing	Processing & Evaluating	Reflecting on the Impacts of Science
Interdisciplinary	Disciplinary Grounding	Synthesizing	Communicating	Reflecting
Community Project	Investigating	Planning	Taking Action	Reflecting

Summary of the Subject-Specific Assessment Criteria

Awarding MYP Grades

Each subject has a precise scale suited to its particular objectives and requirements. All criteria in all subjects are assessed out of a total of eight marks. For each assessment criterion within each subject, a number of band descriptors are defined. These describe a range of achievement levels with the lowest represented as 0. The descriptors concentrate on positive achievement, although difficulty to achieve may be included in the description for the lower levels.

It is crucial for parents and students to discuss each subject area's individual criteria. Each criterion describes a student's strengths and weakness, facilitating an awareness of where to feel confident or where to strive for better results. At the end of each semester, a general achievement grade level out of 7 is provided for each subject. The semester report will show the boundary score, which is a total of the average score for each of the four criteria for each subject area. Thus, if a student's math scores, for example, are: Criterion A: 6, Criterion B: 7, Criterion C: 6, and Criterion D: 6, the total score across all four criteria is 25. Thus, the student's score falls between the boundaries 24-27.

MYP Performance Boundaries	Descriptors	Achievement Grade Level
1-5	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.	1
6-9	Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.	2
10-14	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.	3
15-18	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.	4
19-23	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations and, with support, some unfamiliar real-world situations.	5
24-27	Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication. Uses knowledge and skills in familiar and unfamiliar classroom and real-world situations, often with independence.	6
28-32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.	7

Note: Descriptors should not be considered as marks or percentages. It should not be assumed that there are other arithmetical relationships; for example, a level 2 performance is not necessarily twice as good as a level 1 performance.

A student who attains a particular achievement level in relation to one criterion will not necessarily attain similar achievement levels in relation to the others.

The IB uses Achievement Grade Levels 1-7 to report a student's performance. These levels do not coincide with any other grading scale nor do they represent a grade level based on age.