**Guiding Questions:**

**How Do I Talk with My Peers?**

|  |
| --- |
| **Rules of Discourse**   * Be respectful. * Seek to understand before being understood. * Ask clarifying questions. * Separate yourself from your ideas and be open to new ideas. * Challenge ideas, but respect each other's views. * Explain and justify your ideas/responses. * Know that you are responsible for the quality of the discussion. * Be additive and not repetitive. |

**Possible Questions to Ask:**

|  |  |
| --- | --- |
| **Standards for Mathematical Practice** | **Possible Questions** |
| 1) Make sense of problems and persevere in solving them | * How would you describe the problem in your own words? * What information is given in the problem? * Describe what you have already tried. What might you change? * What are some other strategies you might try? |
| 2) Reason abstractly and quantitatively | * What do the numbers used in the problem represent? * What is the relationship of the quantities? * How did you decide in this task that you needed to use …? * Could we have used another operation or property to solve this task? |
| 3) Construct viable arguments and critique the reasoning of others | * What mathematical evidence would support your solution? * How can we be sure that...? / How could you prove that…? * What were you considering when…? * Did you try a method that did not work? Why didn't it work? Would it ever work? Why or why not? |
| 4) Model with mathematics | * What number model could you construct to represent the problem? * What is an equation or expression that matches the diagram, number line, chart, table, etc…? * What are some ways to visually represent…? * What formula might apply in this situation? |
| 5) Use appropriate tools strategically | * What mathematical tools could we use to visualize and represent the situation? * What do you know that is not stated in the problem? * What approach are you considering trying first? * In this situation would it be helpful to use a graph, number line, ruler, diagram, calculator, manipulative? |
| 6) Attend to precision | * How did you know your solution was reasonable? * Explain how you might show that your solution answers the problem. * Is there a more efficient strategy? * What symbols or mathematical notations are important in this problem? |
| 7) Look for and make use of structure | * What observations do you make about…? * What parts of the problem might you simplify? * What ideas that we have learned before were useful in solving this problem? |
| 8) Look for and express regularity in repeated reasoning | * Explain how this strategy could work in other situations. * Is this always true, sometimes true or never true? * How would we prove that…? * What predictions or generalizations can this pattern support? |