Standards for Mathematical Practices

Teacher(s):	Mathematical Topic(s):	Date:

1. Makes sense of problems and perseveres in solving them

☐ Understands the meaning of the problem and looks for entry points to its solution

☐ Analyzes information (givens, constrains, relationships, goals)

☐ Designs a plan

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Comments:

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2. Reason abstractly and quantitatively

☐ Makes sense of quantities and relationships

☐ Represents a problem symbolically

☐ Considers the units involved

☐ Understands and uses properties of operations

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Comments:

4. Model with mathematics.

☐ Apply reasoning to create a plan or analyze a real world problem

☐ Applies formulas/equations

☐ Makes assumptions and approximations to make a problem simpler

☐ Checks to see if an answer makes sense and changes a model when necessary

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Comments:

8. Look for and express regularity in repeated reasoning

☐ Notices repeated calculations and looks for general methods and shortcuts

☐ Continually evaluates the reasonableness of their results while attending to details and makes generalizations based on findings

☐ Solves problems arising in everyday life

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Comments:

☐ Monitors and evaluates the progress and changes course as necessary

☐ Checks their answers to problems and ask, "Does this make sense?"

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3. Construct viable arguments and critique the reasoning of others

☐ Uses definitions and previously established causes/effects (results) in constructing arguments

☐ Makes conjectures and attempts to prove or disprove through examples and counterexamples

☐ Communicates and defends their mathematical reasoning using objects, drawings, diagrams, actions

☐ Listens or reads the arguments of others

☐ Decide if the arguments of others make sense

☐ Ask useful questions to clarify or improve the arguments

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Comments:

5. Use appropriate tools strategically.

☐ Identifies relevant external math resources (digital content on a website) and uses them to pose or solve problems

☐ Makes sound decisions about the use of specific tools. Examples may include:

  ☐ Calculator

  ☐ Concrete models

  ☐ Digital Technology

  ☐ Pencil/paper

  ☐ Ruler, compass, protractor

☐ Uses technological tools to explore and deepen understanding of concepts

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Comments:

7. Look for and make use of structure.

☐ Looks for patterns or structure

☐ Recognize the significance in concepts and models and can apply strategies for solving related problems

☐ Looks for the big picture or overview

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Comments:

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6. Attend to precision.

☐ Communicates precisely using clear definitions

☐ States the meaning of symbols, calculates accurately and efficiently

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Comments:

☐ Provides carefully formulated explanations

☐ Labels accurately when measuring and graphing