Student Self-Assessment of the 8 Standards for Mathematical Practice

Name _____ **Date** _____

Lesson Strand/Unit _____

Standard	Can I...?	One example of when I did this well...	One example of when I didn't do this well...	One type of problem where this practice is especially important is...
1. Make sense of problems and perseveres in solving them.	❒ Identify relevant information in a problem and consider different ways to solve it. ❒ Pull apart problem and identify givens, constraints, relationships, and goals ❒ Identify relationships in problem and set goal ❒ Plan a solution pathway and reach a solution through its steps ❒ Self monitor progress in problem and change solution pathway if needed ❒ Continually checks solution by asking, "Does this make sense?"			
2. Reason abstractly and quantitatively.	❒ Make sense of quantities and relationships in problem situations ❒ Be able to create a visual to represent information and understand quantities ❒ Be able to create a visual of the problem in an orderly manner ❒ Consider and use the correct units involved ❒ Flexibly use properties of operations			
3. Construct viable arguments and critique the reasoning of others	❒ Use cause/effect relationships to construct an argument ❒ Make an educated guess and use counterexamples to build a clear progression of statements to explore and support ideas ❒ Use visuals for supporting evidence, such as graphs, diagrams, etc. ❒ Listen to or read the mathematical arguments of others ❒ Decide if the arguments of others make sense and ask questions to clarify or improve the arguments			
4. Model with mathematics	❒ Use math knowledge to solve real world problems ❒ Identify important quantities and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas ❒ Make assumptions and estimations to make a problem simpler ❒ Check to see if an answer makes sense within the context of a situation and change a model when necessary			

5. Use appropriate tools strategically.	❒ Pick which tool will help me most to solve a given problem. Examples might include: • Calculator • Concrete models (blocks, tiles, etc.) • Digital Technology (computer, etc.) • Pencil/paper • Ruler, compass, protractor ❒ Use tools like the ones listed above to visualize, explore, compare, predict, and solve. ❒ Pick resources (website, book, notes) to help me ask questions or solve problems. ❒ Use resources like the ones listed above to explore topics and ideas at a deeper level.			
6. Attend to precision.	❒ Communicate clearly by using exact wording and specific definitions. ❒ Tell the meaning of symbols, including units of measure, and label parts accurately. ❒ Calculate accurately using the best or fastest method. ❒ Express numerical answers with the right amount of precision (this means knowing when and how to round, when to leave values in fraction form, when to use decimals, etc.) ❒ Provide explanations that are thoughtful, detailed, and cover every part of the problem, solution, or definition. ❒ Label accurately with correct units when measuring and graphing.			
7. Look for and make use of structure.	❒ Look for patterns or structure, and observe that numbers can be shown in different ways ❒ Recognize the patterns and important parts of big ideas and use these patterns to solve similar problems ❒ View complicated quantities as one object that is made up of parts and use operations with those parts to make sense of problems. • For example, view $2x - 5 + 3x$ as a one expression with three terms; be able to work with constants, coefficients, and variables; and know what operations can be done to or within the expression			
8. Look for and express regularity in repeated reasoning.	❒ Notice calculations that are done over and over and find shortcuts that do the same thing. ❒ Decide if results (during a problem, or the final answer) make sense and are reasonable. ❒ Make generalizations (rules that describe patterns) based on findings and observations.			

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