5TH GRADE MATH PRIORITY STANDARDS- "I CAN..."

Operations and Algebraic Thinking

Number and Operations in Base Ten



Measurement and Data



Fluency

- I can write and solve number sentences that have parentheses, brackets and/or braces. (5.0A.1)
- I can express a whole number 2-50 as a product of its prime factors. (5.OA.2.1)
- I can form ordered pairs using the relationship between two number patterns and graph them on a coordinate plane. (5.OA.3)
- I can explain patterns of zeros in an answer when multiplying a number by powers of 10. (5.NBT.2)
- I can explain patterns of decimal placement when a decimal is multiplied or divided by a power of 10. (5.NBT.2)
- I can use whole-number exponents to show powers of 10. (5.NBT.2)
- I can read, write, and compare decimals to thousandths using base-ten numbers, number names and expanded form. (5.NBT.3)
- I can use place value understanding to round decimals to any place. (5.NBT.4)
- I can divide four-digit numbers (dividends) by two-digit numbers (divisors). (5.NBT.6)
- I can add, subtract, multiply, and divide decimals to hundredths using what I have learned about place value. (5.NBT.7)
- I can relate the strategies I use to add, subtract, multiply and divide decimals to hundredths to a written problem and explain why I
 chose the strategies to help me solve the problem. (5.NBT.7)
- · I can add and subtract fractions with like and unlike denominators. (5.NF.1)
- I can solve word problems that involve addition and subtraction of fractions with like and unlike denominators. (5.NF.2)
- I can understand that fractions are really division problems. (5.NF.3)
- I can solve word problems where I need to divide whole numbers leading to answers that are fractions or mixed numbers. (5.NF.3)
- I can use what I know about multiplication to multiply fractions or whole numbers by a fraction. (5.NF.4)
- I can use unit squares to find the area of a rectangle with fractional side lengths and prove that it is the same as multiplying the side lengths (A = I x w). (5.NF.4)
- I can explain why multiplying a number by a fraction greater than 1 will result in a bigger number than the number I started with. (5.NF.5)
- I can explain why multiplying a number by a fraction less than 1 will result in a smaller number than the number I started with. (5.NF.5)
- I can solve real world problems that involve multiplication of fractions and mixed numbers. (5.NF.6)
- I can use what I know about division to divide unit fractions by whole numbers or whole numbers by unit fractions. (5.NF.7)
- I can make a line plot to display fractions of a unit. (5.MD.2)
- I can use addition, subtraction, multiplication and division of fractions to solve problems involving information presented on a line plot. (5.MD.2)
- I can solve real-world and mathematical problems involving volume of an object using the formulas V= I x w x h and V= b x h. (5.MD.5)
- I can draw a coordinate plane and graph ordered pairs of numbers on a coordinate plane. (5.G.1)
- I can understand coordinate values in the context of a real-world or mathematical problem. (first quadrant only) (5.G.2)
- I can understand how attributes of 2-dimensional shapes in a category also belong to all subcategories of those shapes. (5.G.3)
- I can do multi-digit multiplication using the standard algorithm. (5.NBT.5)

8 STANDARDS FOR MATHEMATICAL PRACTICE: GRADES K- 12

Mathematical **Practice**

How a student can use the standard. Student "I can" statements.

How a parent or caregiver can support the standard.

Make sense of problems persevere in

- · I can make a plan for solving the problem.
- . I can keep going even when it is difficult.
- · I can check if my answer is reasonable.
- I can solve it in another way to check my answer.
- I can visualise the problem to help me make a plan to solve it.
- I will try another strategy if my first one does not work.

Reason abstractly and guantitatively

- problem.
- · I can think about the relationships between the numbers in the problem.
- · I can think about what each number or variable in the problem represents.
- . I can show the problem in ways that are not the standard algorithm (symbols, pictures, manipulatives, etc.)
- I can explain my thinking.

- I can use numbers and words to help make sense of the

- Construct

viable arguments and critique the reasoning of others.

- · I can ask questions to clarify my understanding.
- · I can make connections to other strategies.
- · I can communicate to others what I am thinking and why.
- · I can justify my answer/conclusion.
- I can consider the thinking of other students.
- · I can use mathematical language and evidence to support my answer.

- Allow time for students to think when asking questions.
- . "What plan can you make to solve this problem?"
- . "What information is in the problem and what are you trying to figure out?"
- For word problems encourage them to explain what it is about without considering the math or how to solve it first.
- Encourage the math to become about the process/students thinking rather than the one right answer.
- "Why do you think that might be the answer?"
- "Can you explain what the numbers or variables in the problem" mean?"
- "How did you decide to use this operation or strategy?"
- · Ask questions that help lead students to understanding.
- · Encourage critical thinking and reasoning.
- Encourage students to explain their thinking even if the answer is not correct.
- "How did you get your answer?"
- · "How do you know that your answer is correct?"
- Ask clarifying questions.
- · Establish an environment where the student is not afraid to get the answer incorrect as long as they can explain their reasoning.

Model with

- · I can relate mathematics to real life situations.
- I can use pictures, words, objects, or symbols to solve problems.
- I can use different manipulatives (ex. number lines, arrays, base 10 blocks, algebra tiles, etc.) to represent and solve my problem.
- What model can you use to help you solve this problem?"
- "Can you visualize what is happening in this problem?"
- Point out where math is in real life situations.

8 STANDARDS FOR MATHEMATICAL PRACTICE: GRADES K- 12

Mathematical Practice

How a student can use the standard. Student "I can" statements.

How a parent or caregiver can support the standard.

"Is there a tool that might help you solve this problem?"

. "What information do you have/know that might help you solve

. "Why did you choose this tool to help you solve this problem?"

"Before you solve the problem can you estimate the answer?"

Use appropriate tools strategically.

- I can select and use math tools such as number lines, calculators, objects, tables, graphs, words, manipulatives, etc. to help me solve the problem.
- · I can explain why I chose a specific tool to solve the problem.
- · I can estimate to help me solve the problem.

 Encourage them to find everyday items to help solve the problem.

this problem?"

Attend to precision.

- . I always think about whether my answer is reasonable.
- I am able to communicate to others using mathematics vocabulary so that they understand what I am doing.
- · I am precise in my calculations.
- · I use appropriate symbols and units of measure.

- "How do you know that your solution is reasonable?"
- "What units of measure are you using?"
- · Encourage students to use mathematical language.
- Encourage students to take their time and always have a reason for their actions.
- Encourage students to explain exactly what they do and do not understand. (Discourage the phrase, "I do not get any of it")

Look for and make use of structure.

- I look for patterns that can help me solve a problem.
- I can relate other problems that I have solved previously to help me solve new problems.
- · I try to connect mathematical ideas.

- "What are some other problems that are similar to this one?"
- "Do you see any patterns/similarities in the problems you have been solving?"

Look for and express regularity in repeated reasoning.

- I can notice when calculations are repeated and use these ideas to create a strategy.
- · I can create rules for patterns.
- · I can determine if my answer is reasonable..

- Encourage students to create rules for patterns they observe and explore if they are always true.
- · "What do you think is happening in this problem?"
- "What shortcut can you think of that will always work for these kinds of problems?"