

## 6TH GRADE MATH PRIORITY STANDARDS- "I CAN..."

### Ratios and Proportional Relationships

- I can use ratio language to describe a ratio relationship between two quantities and understand what a ratio is. (6.RP.1)
- I can make tables of equivalent ratios, find missing values in the tables and use the tables to compare ratios. (6.RP.3a)
- I can plot ratios on a coordinate plane. (6.RP.3a)
- I can solve unit rate problems. (Ex: If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours?) (6.RP.3b)
- I can find a percent of a quantity as a rate per 100. (Ex: 30% of a quantity means 30/100 times the quantity). (6.RP.3c)
- I can solve problems involving finding the whole if I am given a part and the percent. (6.RP.3c)

### The Number System

- I can divide two fractions including word problems involving the division of fractions by fractions. (6.NS.1)
- I can find the greatest common factor of two whole numbers less than or equal to 100. (6.NS.4)
- I can find the least common multiple of two whole numbers less than or equal to 12. (6.NS.4)
- I can use the distributive property to show the sum of two whole numbers (1-100) in different ways. (Ex: show  $36 + 8$  as  $4(9+2)$ ). (6.NS.4)
- I can understand that positive and negative numbers are used to describe amounts having opposite values and can apply it to real life. (6.NS.5)
- I can extend number line diagrams and coordinate axes to show positive and negative numbers. (6.NS.6)
- I can find and place integers and other rational numbers on a number line diagram. (6.NS.6)
- I can order rational numbers. (6.NS.7)
- I can understand statements of inequality (ex:  $-3 > -7$ ) and explain their positions and distances apart on a number line. (6.NS.7)
- I can understand the absolute value of a number as its distance from 0 on the number line. (6.NS.7)
- I can graph points in all four quadrants of the coordinate plane to help me solve real-world and mathematical problems. (6.NS.8)

### Expressions and Equations

- I can write, read and figure out expressions in which letters stand for numbers. (6.EE.2)
- I can figure out different answers to expressions when given specific values for the variable. (6.EE.2)
- I can solve math problems including those with exponents, in the usual order (order of operations). (6.EE.2)
- I can apply the properties of operations to generate equivalent expressions. (6.EE.3)
- I can recognize when two expressions are equivalent. (6.EE.4)
- I can solve one-variable equations and inequalities. (6.EE.5, 6.EE.6)
- I can solve real-world and mathematical problems by writing and solving equations of the form  $x + p = q$  and  $px = q$  (6.EE.7)
- I can write an equation to show one quantity (the dependent variable) in terms of the other quantity (the independent variable). (6.EE.9)
- I can use graphs and tables to show the relationship between dependent and independent variables. (6.EE.9)

### Geometry

- I can draw polygons in the coordinate plane when I am given the coordinates for the vertices. (6.G.3)

### Statistics and Probability

- I can understand that a set of data collected to answer a statistical question has a distribution that can be described by its center, spread and overall shape when plotted on a graph. (6.SP.2)
- I can show numerical data in plots on a number line (including dot plots, histograms and box plots). (6.SP.4)

### Fluency

- I can divide multi digit numbers using the standard algorithm. (6.NS.2)
- I can add, subtract, multiply and divide multi-digit numbers involving decimals. (6.NS.3)

## 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 and persevere in solving them.

- 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.

- 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?"

Reason abstractly and quantitatively

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

- "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.

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.

- "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 mathematics

- 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.

#### 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.

- "Is there a tool that might help you solve this problem?"
- "What information do you have/know that might help you solve this problem?"
- "Why did you choose this tool to help you solve this problem?"
- "Before you solve the problem can you estimate the answer?"
- Encourage them to find everyday items to help solve the 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?"