

4TH GRADE MATH PRIORITY STANDARDS- "I CAN..."

Operations and Algebraic Thinking

- I can multiply or divide to solve word problems comparing two quantities to determine how many times larger or smaller a quantity is using drawings or writing equations and solving for a missing number. (4.OA.2)
- I can solve multi step word problems with whole numbers using the four operations (multiplication, division, addition, subtraction). (4.OA.3)
- I can find all factor pairs for whole numbers from 1-100. (4.OA.4)
- I can determine whether a whole number from 1 to 100 is a multiple of a given one-digit number. (4.OA.4)

Number and Operations in Base Ten

- I can recognize in a multidigit number that a digit in one place represents ten times what it represents to its right. (4.NBT.1)
- I can round larger whole numbers to any place. (4.NBT.3)
- I can illustrate and explain how to multiply larger numbers by using equations, arrays or models. (4.NBT.5)
- I can illustrate and explain how to divide larger numbers by using equations, arrays or models. (4.NBT.6)

Numbers and Operations Fractions

- I can recognize and generate equivalent fractions and can explain why they are equivalent using visual fraction models. (4.NF.1)
- I can compare two fractions with different numerators and different denominators by creating common denominators or numerators or by comparing them to a benchmark fraction like one-half. (4.NF.2)
- I can understand addition and subtraction of fractions as joining and separating parts referring to the same whole. (4.NF.3a)
- I can decompose a fraction into a sum of fractions with the same denominator in more than one way and justify my work using models ($2\frac{1}{8} = 1 + 1 + \frac{1}{8}$, or $\frac{8}{8} + \frac{8}{8} + \frac{1}{8}$) (4.NF.3b)
- I can add and subtract mixed numbers with like denominators. (4.NF.3c)
- I can solve word problems involving addition and subtraction of fractions that refer to the same whole and that have like denominators. (4.NF.3d)
- I can multiply a fraction by a whole number, including word problems. (4.NF.4)
- I can show a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 in order to add the two fractions. (4.NF.5)
- I can use decimals to show fractions with denominators of 10 and 100.(ex. $0.62 = \frac{62}{100}$) (4.NF.6)
- I can compare two decimals to hundredths by reasoning about their size and realizing that the comparison is only true if the two decimals refer to the same whole. (4.NF.7)

Measurement and Data

- I can show that I know the relative size of measurement units within one system of units (including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec). (4.MD.1)
- I can use the four operations (+, -, x, ÷) to solve word problems involving measurement. (4.MD.2)
- I can use what I know about area and perimeter to solve real world problems involving rectangles. (4.MD.3)
- I can understand concepts of angle measurement. (4.MD.5)
- I can solve addition and subtraction problems to find unknown angles. (4.MD.7)

Geometry

- I can classify two-dimensional shapes based on what I know about their geometrical attributes. (4.G.2)
- I can recognize and draw a line of symmetry for a two dimensional figure. (4.G.3)

Fluency

- I can add and subtract within 1,000,000. (4.OA.4)

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?"