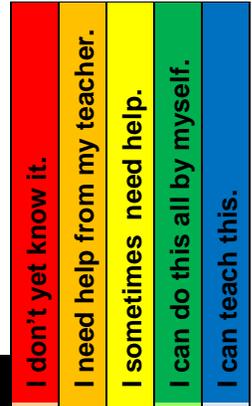


I Can... Grade 5 Mathematics

EOY—End of Year Assessment PBA—Performance-Based Assessment

Major Content Supporting Content Additional Content



I Can...		Example					
Operations & Algebraic Thinking	5.OA.A.1 I can evaluate expressions that include parentheses, brackets and/or braces.	Find the value of the expression $[(3 \times 6) + 2] - 10$					
	5.OA.A.2 I can write an expression using mathematic symbols and the order of operations correctly.	Write an expression to model “three times more than the difference of 8 and 4”.					
	5.OA.A.3 I can generate ordered pairs using two number patterns, graph them on a coordinate plane, compare the two lines created from the ordered pairs, and explain any apparent relationships.	If $x = 0, 1, 2, 3, 4,$ and $5,$ graph ordered pairs for both $x + 5 = y$ and $x + 10 = y.$ What do you notice about the two graphs?					
Numbers & Operations in Base Ten	5.NBT.A.1 I can understand and explain the relationship between the value of digits in a number using “ten times more” and “one tenth of” language.	Underline the digit in the number 12.222 that has a value that is $\frac{1}{10}$ of the two in 5.723.					
	5.NBT.A.2 I can explain patterns in the number of zeros or where the decimal point is placed when I multiply or divide by powers of 10.	What is 14.345×10^4 in standard form? Explain how you determined where the decimal point should be placed.					

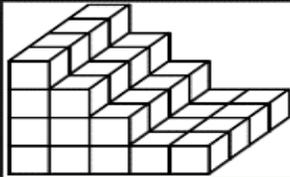
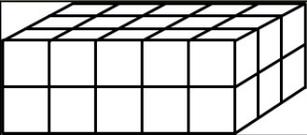
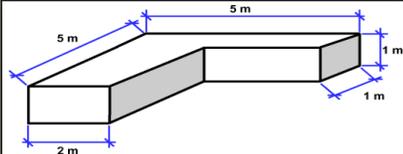
Unit	I Can...	Example	Red	Orange	Yellow	Green	Blue
	<p>5.NBT.A.3 I can read, write, and compare decimal numbers to thousandths.</p>						
	<p>5. NBT.A.3.a I can read and write decimals to thousandths using number names and expanded form.</p>	<p>What is the number $10 + (3 \times 1) + (2 \times \frac{1}{10}) + (5 \times \frac{1}{100})$ in standard form and word form?</p>					
	<p>5.NBT.A.3.b I can compare two decimals to thousandths using $>$, $<$, and $=$ symbols.</p>	<p>Use $<$, $>$, or $=$ to describe the relationship. Thirteen and fourteen hundredths _____ 13.114</p>					
	<p>5.NBT.A.4 I can round decimals to any place.</p>	<p>Emil's 50 meter dash time rounds to 7 seconds. What could his actual time be?</p>					
	<p>5.NBT.B.5 I can easily and accurately multiply multi-digit whole numbers. Note that students are expected to meet the Grade 4 standard for the PBA.</p>	<p>Find the product of 3,455 and 26.</p>					
	<p>5.NBT.B.6 I can divide four-digit numbers (dividends) by two-digit numbers (divisors) and illustrate and explain a division problem using equations, arrays and/or models.</p>	<p>Gretchen divided 1,530 by 30 and got 510. Explain why her answer is unreasonable using an equation, an array model, or an area model.</p>					
	<p>5.NBT.B.7 I can use what I know about place value to add, subtract, multiply and divide decimals to hundredths. I can use different models to justify my answer, and also write an equation to represent my model.</p>	<p>How are $9 \times .17$ and 9×17 related? Use a concrete model or drawing to explain your answer.</p>	+				
			-				
			x				
			÷				

Unit	I Can...	Example	Red	Orange	Yellow	Green	Blue
Numbers & Operations - Fractions	5.NF.A.1 I can add and subtract fractions and mixed numbers with unlike denominators by finding equivalent fractions.	Find the difference. $7\frac{3}{5} - \frac{7}{10} =$.					
	5.NF.A.2 I can solve word problems that involve addition and subtraction of fractions and mixed numbers with unlike denominators. I can use estimation to determine reasonableness of my answer.	Dylan rode his bike for $3\frac{3}{4}$ miles along the B&A trail and then he ran $1\frac{1}{3}$ miles on the same trail. How far did he travel? Explain why your answer is reasonable using benchmark fractions or reasoning.					
	5.NF.B.3 I can write any division problem as a fraction, and understand its meaning. I can use this understanding to solve word problems.	Three pounds of ham is divided evenly to make eight sandwiches. How much ham will be on each sandwich?					
	5.NF.B.4 I can use what I know about multiplication to multiply fractions or whole numbers by a fraction.						
	5.NF.B.4.a I can understand and show with models that multiplying a fraction by a whole number is the same as finding the product of the numerator and whole number and then dividing it by the denominator.	Draw a model to show that $\frac{3}{5} \times 5 = 3$.					
	5. NF.B.4.b 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 ($A = l \times w$).	What is the area of a rectangle with a width of $\frac{5}{8}$ units and a length of $\frac{2}{3}$ units? Draw a model and write an equation to justify your answer.					

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	<p>5.NF.B.5 I can think of multiplication as the scaling of a number (similar to a scale on a map).</p>						
	<p>5.NF.B.5.a I can determine the size of a product without solving an equation by mentally comparing the product to the size of one of the factor, and using the other factor in the problem.</p>	<p>Phillip multiplied $\frac{5}{6}$ by another factor and got a product less than $\frac{5}{6}$. What could the unknown factor be?</p>					
	<p>5. NF.B.5.b I can explain why multiplying a number by a fraction greater than 1 will result in a product greater than the starting number, and multiplying a number by a fraction less than 1 will result in a product less than the starting number, and to prove it use my understanding of the identity property (where $\frac{n}{n} = 1$).</p>	<p>Multiply 3 by $\frac{3}{4}$, $\frac{4}{4}$, and $\frac{5}{4}$. What do you notice about the products of each problem? Why does this happen?</p>					
	<p>5.NF.B.6 I can solve real world problems that involve multiplication of fractions and mixed numbers.</p>	<p>In Sarah's class, $\frac{6}{10}$ of the students are girls. Of the girls, $\frac{1}{3}$ play an instrument in the band. What fraction of Sarah's class are girls who play an instrument in the band?</p>					
	<p>5.NF.B.7 I can use what I know about division to divide fractions by whole numbers or whole numbers by fractions.</p>						
	<p>5.NF.B.7.a I can solve, represent, and explain a real world context for division of a unit fraction by a whole number (not 0) correctly.</p>	<p>Solve and write a story that would be represented with this equation: $\frac{1}{5} \div 3 = ?$</p>					

Grade 5 Math

Unit	I Can...	Example						
	5. NF.B.7.b I can solve, represent, and explain a real world context for division of a whole number by a unit fraction correctly.	Solve and draw a picture to prove your answer: $3 \div \frac{1}{5} = ?$						
	5. NF.B.7.c I can solve real world problems involving division with a unit fraction and a whole number.	Three friends share $\frac{1}{2}$ gallon of ice cream equally. Draw a visual fraction model and write an equation to show what fraction of a gallon of ice cream each student ate.						
	5.MD.A.1 I can convert measurements within the same system (metric or customary) to solve multi-step, real-world problems.	I can convert measurements within the same system (metric or customary) to solve multi-step, real-world problems.	metric					
			standard					
Measurement & Data	5.MD.B.2 I can make a line plot to show a data set of measurements involving fractions, and use operations with fractions to solve problems using the data.	Given the length of different movies below, create a line plot. Length of movies in hours: $1\frac{3}{4}$, $2\frac{1}{2}$, $1\frac{1}{2}$, $2\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{3}{4}$, $2\frac{1}{2}$, $2\frac{1}{4}$, $1\frac{2}{4}$ How long would it take to watch $\frac{3}{4}$ of the longest movie?						
	5.MD.C.3 I can recognize volume as a characteristic of solid figures and understand how it can be measured.							
	5.MD.C.3.a I can understand a "unit cube" as a cube with side lengths of 1 unit and can use it to measure volume.	Define the term cubic unit, and draw a picture to support your definition.						
	5. MD.C.3.b I can understand that a solid figure packed without spaces with a number of unit cubes has a volume of that many cubes.	Use cubes to create two different rectangular prisms with a volume of 24.						

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	<p>5.MD.C.4 I can measure volume by counting unit cubes.</p>	<p>Find the volume of the solid figure</p> 					
	<p>5.MD.C.5 I can solve real world problems involving volume by thinking about multiplication and addition.</p>						
	<p>5.MD.C.5.A I can use unit cubes to find the volume of a right rectangular prism with whole number side lengths and prove that it is the same as multiplying the edge lengths ($V = l \times w \times h$).</p>	<p>Write an equation to show how you can find the volume of the rectangular prism below. Explain how your equation helps calculate the volume more quickly than counting units.</p> 					
	<p>5. MD.C.5.B I can solve real-world and mathematical problems involving volume of an object using the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms with whole-number dimensions.</p>	<p>What is the volume of a swimming pool that is 6 m long, 4 m wide, and 2 m deep?</p>					
	<p>5. MD.C.5.C I can solve real-world problems using what I know about adding the volumes of two right rectangular prisms together to find the total volume.</p>	<p>Find the volume of the solid figure.</p> 					

Grade 5 Math

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Geometry	<p>5.G.A.1 I can understand a coordinate plane using what I have learned about the origin, the x-axis, and the y-axis.</p>	<p>Plot the points on a coordinate plane: Point A (4, 6) Point B (6, 4) Point C (9, 3) Point D (3, 9) What do you notice about the ordered pairs for points A and B? What do you notice about the ordered pairs for points C and D? Explain how the order of the coordinates effects the location of the point.</p>					
	<p>5.G.A.2 I can graph points in the first quadrant of a coordinate plane in context of a real-world or mathematical problem</p>	<p>Plot the following points on the coordinate grid: (6,3) (14, 3) (14, 9) Plot a fourth point on the grid to form a rectangle when all 4 points are connected. Write the coordinates for the point you plotted. (____, ____).</p>					
	<p>5. G.B.3 I can understand how attributes of 2-dimensional shapes in a category also belong to all subcategories of those shapes</p>	<p>Sketch the figure to answer the riddle. <i>I am a quadrilateral,</i> <i>I am also a rhombus.</i> <i>I am not a square.</i> <i>What might I look like?</i> What properties does your figure have?</p>					
	<p>5. G.B.4 I can classify 2-dimensional shapes based on their properties.</p>	<p>Is a square a rhombus? Is a rhombus a square? Explain using what you know about the properties of these quadrilaterals.</p>					