

Everyday Mathematics and the Indiana Academic Standards for Grade 5 Mathematics

[IU-IMI Articulation of Everyday Mathematics to Indiana Academic Standards for Mathematics](#)

The Indiana Academic Standards to Mathematics (found at <http://www.k12.in.us/standards/>) have been listed with the lessons in Everyday Mathematics where the standard would consider to be taught so as to be mastered. The standards appear in many other lessons both preceding and following where they are listed. It is IMPERATIVE that all lessons in Everyday Mathematics be taught, since the foundation and review in the spiral is necessary for the standard to be understood in depth by the student.



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Everyday Mathematics and the Indiana Academic Standards for Grade 5 Mathematics

Everyday Math Lessons		Grade 3 Indiana Academic Standards for Mathematics			Other Indiana Academic Standards
Unit One					
1.6	<i>Twelve Ways to Get to Eleven</i> by Eve Merriam				
1.9	<i>26 Letters and 99 Cents</i> by Tana Hoban	Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts in decimal notation using the \$ symbol.	3.5.10	Measurement	
1.10		Use play or real money to decide whether there is enough money to make a purchase.	3.5.11	Measurement	Social Studies 3.4.5 List the characteristics of money, and explain how money makes trade easier. Social Studies 3.4.6 Identify different ways people save their income, and explain advantages and disadvantages of each.
Unit Two					
2.1		Use mental arithmetic to add or subtract with numbers less than 100.	3.2.8	Computation	Science 3.2.1 Add and subtract whole numbers mentally, on paper, and with a calculator.
2.1-2.2, 2.7-2.9		Add and subtract whole numbers up to 1,000 with or without regrouping, using relevant properties of the number system.	3.2.1	Computation	
2.3-2.4		Solve simple problems involving a functional relationship between two quantities.	3.3.6	Algebra and Functions	
2.7-2.8		Use estimation to decide whether answers are reasonable in addition and subtraction problems.	3.2.7	Computation	

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Unit One				
1.6	Describe and identify prime and composite numbers.	5.1.6	Number Sense	
Unit Two				
2.2-2.5	Add and subtract decimals and verify the reasonableness of the results.	5.2.5	Computation	
2.4	Arrange in numerical order and compare whole numbers or decimals to two decimal places by using the symbols for less than, equals, and greater than.	5.1.3	Number Sense	
2.4	Add and subtract with money in decimal notation.	5.5.7	Measurement	
2.4	Use a variable to represent an unknown number.	5.3.1	Algebra & Functions	
2.5, 6.1	Find the mean, median, mode, and range of a set of data and describe what each does, and does not, tell about the data set.	5.6.2	Data Analysis & Probability	
2.6	Understand that probability can take any value between 0 and 1, events that are not going to occur have probability 0, events certain to occur have probability 1, and more likely events have a higher probability than less likely events.	5.6.3	Data Analysis & Probability	
2.6	Express outcomes of experimental probability situations verbally and numerically.	5.6.4	Data Analysis & Probability	
2.7, 5.5	Round whole numbers and decimals to any place value.	5.1.2	Number Sense	
2.7 (mult.), 3.2 (add/subt.), 4.1 (div.)	Use estimation to decide whether answers are reasonable in addition, subtraction, multiplication, and division problems.	5.2.6	Computation	
2.8-2.9, 4.1-4.2	Solve problems involving multiplication and division of any whole numbers.	5.2.1	Computation	
2.10, 9.2	Convert between numbers in words and numbers in figures, for numbers up to millions and decimals to thousandths.	5.1.1	Number Sense	

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Unit Three				
3.3-3.6, 9.4-9.6	Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, triangles, and circles by using appropriate tools.	5.4.1	Geometry	
3.5	Identify and draw the radius and diameter of a circle and understand the relationship between the radius and diameter.	5.4.5	Geometry	
3.6 (acute, obtuse, and equiangular needed)	Identify, describe, draw and classify triangles as equilateral, isosceles, scalene, right, acute, obtuse, and equiangular.	5.4.2	Geometry	
3.6 (angles needed)	Identify congruent triangles and justify your decisions by referring to sides and angles.	5.4.3	Geometry	
3.7-3.9	Identify, describe, draw, and classify polygons, such as pentagons and hexagons.	5.4.4	Geometry	
Unit Four				
Unit Five				
5.1	Explain different interpretations of fractions: as parts of a whole, parts of a set, and division of whole numbers by whole numbers.	5.1.5	Number Sense	
5.6	Identify on a number line the relative position of simple positive fractions, positive mixed numbers, and positive decimals.	5.1.7	Number Sense	
5.6-5.8	Interpret percents as a part of a hundred. Find decimal and percent equivalents for common fractions and explain why they represent the same value.	5.1.4	Number Sense	
5.10.6 (freezing and boiling points needed)	Compare temperatures in Celsius and Fahrenheit, knowing that the freezing point of water is 0°C and 32°F and that the boiling point is 110°C and 212°F.	5.5.6	Measurement	

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Unit Six				
6.6, 10.4, 12.7	Explain which types of displays are appropriate for various sets of data.	5.6.1	Data Analysis & Probability	
6.8-6.10	Add and subtract fractions with different denominators.	5.2.2	Computation	
Unit Seven				
Unit Eight				
8.5-8.6	Use models to show an understanding of multiplication and division of fractions.	5.2.3	Computation	
8.7-8.8, 8.12	Multiply and divide fractions to solve problems.	5.2.4	Computation	
Unit Nine				
9.1-9.3	Identify and graph ordered pairs of positive numbers.	5.3.4	Algebra & Functions	
9.3 (reflectional) 3.4 (rotation) – Gr 4 EM 4.6.6	Identify shapes that have reflectional and rotational symmetry.	5.4.6	Geometry	
9.4. 9.6, 10.4 (trapezoids needed)	Understand and apply the formulas for the area of a triangle, parallelogram, and trapezoid.	5.5.1	Measurement	
9.4.-9.6 Unit 8 grade 4	Solve problems involving perimeters and areas of rectangles, triangles, parallelograms, and trapezoids, using appropriate units.	5.5.2	Measurement	
9.4-9.6	Use formulas for the areas of rectangles and triangles to find the area of complex shapes by dividing them into basic shapes.	5.5.3	Measurement	
Unit Ten				
10.3-10.6	Write simple algebraic expressions in one or two variables and evaluate them by substitution.	5.3.2	Algebra & Functions	
	Use the distributive property in numerical equations and expressions.	5.3.3	Algebra & Functions	
10.4-10.6	Find ordered pairs that fit a linear equation, graph the ordered pairs, and draw the line they determine.	5.3.5	Algebra & Functions	

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10.7	Use information taken from a graph or equation to answer questions about a problem situation.	5.3.7	Algebra & Functions	
Unit Eleven				
11.1	Construct prisms and pyramids using appropriate materials.	5.4.8	Geometry	
11.7	Find the surface area and volume of rectangular solids using appropriate units.	5.5.4	Measurement	
	Understand that the length of a horizontal line segment on a coordinate plane equals the difference between the x-coordinates and that the length of a vertical line segment on a coordinate plane equals the difference between the y-coordinates.	5.3.6	Algebra & Functions	
	Use mental arithmetic to add or subtract simple decimals.	5.2.7	Computation	
Grade 4 Everyday Math 4.6.6 and 4.11.2	Understand that 90° , 180° , 270° , and 360° are associated with $1/4$, $1/2$, $3/4$, and full turns, respectively.	5.4.7	Geometry	
Grade 4 Everyday Math 4.11.1	Understand and use the smaller and larger units for measuring weight and their relationship to pounds and kilograms.	5.5.5	Measurement	
Grade 4 Everyday Math 4.11.5	Given a picture of a three-dimensional object, build the object with blocks.	5.4.9	Geometry	

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Everyday Math Lessons	Grade 5 Indiana Academic Standards Problem Solving in Mathematics	
Problem solving is a part of every unit in Everyday math.	Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.	5.7.1
	Decide when and how to break a problem into simpler parts.	5.7.2
	Apply strategies and results from simpler problems to more complex problems.	5.7.3
	Express the solution clearly and logically by using the appropriate mathematical terms and notation.	5.7.4
	Recognize the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.	5.7.5
	Know and apply appropriate methods for estimating results of rational-number computations.	5.7.6
	Make precise calculations and check the validity of the results in the context of the problem.	5.7.7
	Decide whether a solution is reasonable in the context of the original situation.	5.7.8
	Note the method of finding the solution and show a conceptual understanding of the method by solving similar problems.	5.7.9