

**Illinois Content Standards
Correlated to**

**Academic Language Notebooks
The Language of Math
Grade 5**

Illinois Standards		Module Number and Name
Lesson 1: Number Sense		
6.5.01	Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000,000.	1. Place Value of Whole Numbers and Decimals
6.5.02	Read, write, recognize, model, and interpret numerical expressions from a given description or situation.	
6.5.03	Read, write, recognize, and model equivalent representations of fractions, including improper fractions and mixed numbers.	12. Equivalent Fractions and Simplest Form
6.5.04	Recognize, translate between, and model multiple representations of decimals, fractions less than one (halves, quarters, fifths, and tenths), and percents (0%, 25%, 50%, 75%, and 100%).	12. Equivalent Fractions and Simplest Form
6.5.05	Read, write, recognize, and model decimals and their place values through thousandths.	5. Estimate Whole Numbers and Decimals
6.5.06	Represent multiplication as repeated addition.	6. Patterns and Estimation in Multiplication
6.5.07	Order and compare whole numbers up to 1,000,000.	2. Compare and Order Whole Numbers and Decimals
6.5.08	Order and compare decimals through hundredths.	3. Round Whole Numbers and Decimals
6.5.09	Order and compare fractions having like or unlike denominators with or without models.	10. Common Factors and Common Multiples
6.5.10	Identify and locate whole numbers, halves, fourths, and thirds on a number line.	3. Round Whole Numbers and Decimals
6.5.11	Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than, square numbers).	2. Compare and Order Whole Numbers and Decimals

Illinois Standards	Module Number and Name
Lesson 2: Operations	
6.5.12 Solve problems and number sentences involving addition, subtraction, multiplication, and division using whole numbers.	
6.5.13 Solve problems and number sentences involving addition and subtraction of decimals through hundredths (with or without monetary labels).	10. Common Factors and Common Multiples
6.5.14 Model situations involving addition and subtraction of fractions.	14. Add and Subtract Fractions with Unlike Denominators
6.5.15 Solve problems involving the commutative, distributive, and identity properties of operations on whole numbers [e.g., $37 \times 46 = 46 \times 37$, $270 \times 35 = (200 \times 35) + (70 \times 35)$].	7. Properties of Multiplication
6.5.16 Make estimates appropriate to a given situation with whole numbers, fractions, and decimals.	5. Estimate Whole Numbers and Decimals
6.5.17 Identify and express ratios using appropriate notation (i.e., a/b , a to b), and identify equivalent ratios.	26. Ratio and Proportion
6.5.18 Solve problems involving proportional relationships, including unit pricing (e.g., one apple costs 20¢ , so four apples cost 80¢).	
6.5.19 Read, write, recognize, and model percents (0%, 25%, 50%, 75%, and 100%).	27. Percent
Lesson 3: Measurement	
7.5.01 Solve problems involving elapsed time in compound units.	
7.5.02 Select and use appropriate standard units and tools to measure length (to the nearest $1/4$ inch or mm), mass/weight, capacity, and angles.	21. Customary and Metric Measurement of Length, Weight/Mass, and Capacity
7.5.03 Solve problems involving the perimeter and area of a triangle, rectangle, or irregular shape using diagrams, models, and grids or by measuring or using given formulas (may include sketching a figure from its description).	22. Perimeter and Circumference 23. Area, Surface Area, and Volume
7.5.04 Compare and estimate length (including perimeter), area, volume, weight/mass, and angles (0° to 180°) using referents.	21. Customary and Metric Measurement of Length, Weight/Mass, and Capacity 22. Perimeter and Circumference 23. Area, Surface Area, and Volume

Illinois Standards	Module Number and Name
Lesson 3: Measurement	
7.5.05 Determine the volume of a right rectangular prism using an appropriate formula or strategy.	23. Area, Surface Area, and Volume
7.5.06 Solve problems involving unit conversions within the same measurement system for time, length, and weight/mass, including compound units (e.g., 5 ft 5 in., 2 lbs 2 oz).	21. Customary and Metric Measurement of Length, Weight/Mass, and Capacity
7.5.07 Solve problems involving map interpretation (e.g., one inch represents five miles, so two inches represent ten miles).	24. Make and Read Graphs
Lesson 4: Algebra	
8.5.01 Determine a missing term in a sequence, extend a sequence, and identify errors in a sequence when given a description or sequence.	
8.5.02 Construct and identify a rule that can generate the terms of a given sequence.	
8.5.03 Write an expression using variables to represent unknown quantities.	29. Write and Solve Equations
8.5.04 Evaluate algebraic expressions with a whole number variable value (e.g., evaluate $m + 1$ when $m = 5$).	29. Write and Solve Equations
8.5.05 Demonstrate, in simple situations, how a change in one quantity results in a change in another quantity (e.g., input–output tables).	30. Functions and Ordered Pairs
8.5.06 Translate between different representations (table, written, or pictorial) of whole number relationships.	24. Make and Read Graphs
8.5.07 Represent problems with equations and inequalities.	29. Write and Solve Equations
8.5.08 Solve for the unknown in an equation with one operation (e.g., $2 + n = 20$, $n + 4 = 5$).	29. Write and Solve Equations
8.5.09 Solve word problems involving unknown quantities.	
Lesson Five: Geometry	
9.5.01 Classify, describe, and sketch two-dimensional shapes (triangles, quadrilaterals, pentagons, hexagons, and octagons) according to the number of sides, length of sides, number of vertices, and interior angles (right, acute, obtuse).	17. Triangles, Polygons, and Quadrilaterals
9.5.02 Identify and describe three-dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices).	20. Solid Figures

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Lesson Five: Geometry	
9.5.03 Solve problems using properties of triangles (e.g., sum of interior angles of a triangle is 180°).	17. Triangles, Polygons, and Quadrilaterals
9.5.04 Identify, describe, and sketch circles, including radius and diameter.	19. Circles
9.5.05 Graph, locate, identify points, and describe paths using ordered pairs (first quadrant).	30. Functions and Ordered Pairs
9.5.06 Identify whether or not a figure has one or more lines of symmetry, and sketch or identify all lines of symmetry.	18. Congruence, Transformations, and Symmetry
9.5.07 Identify, describe, and predict results of reflections, translations, and rotations of two-dimensional shapes	18. Congruence, Transformations, and Symmetry
9.5.08 Identify and sketch parallel, perpendicular, and intersecting lines.	16. Points, Lines, Rays, and Angles
9.5.09 Identify and sketch acute, right, and obtuse angles.	16. Points, Lines, Rays, and Angles
9.5.10 Identify the two-dimensional components of a three-dimensional object.	23. Area, Surface Area, and Volume
9.5.11 Identify a three-dimensional object from its net.	2. Compare and Order Whole Numbers and Decimals
9.5.12 Predict the result of composing or decomposing shapes or figures.	20. Solid Figures
9.5.13 Identify congruent and similar figures by visual inspection.	18. Congruence, Transformations, and Symmetry
9.5.14 Determine if figures are similar, and identify relationships between corresponding parts of similar figures.	18. Congruence, Transformations, and Symmetry
9.5.15 Determine the distance between two points on a horizontal or vertical number line in whole numbers.	2. Compare and Order Whole Numbers and Decimals

Illinois Standards	Module Number and Name
Lesson Six: Data Analysis and Probability	
10.5.01 Read, interpret, and make predictions from data represented in a pictograph, bar graph, line (dot) plot, Venn diagram (with two circles), chart/table, line graph, or circle graph.	24. Make and Read Graphs
10.5.02 Create a pictograph, bar graph, chart/table, or line graph for a given set of data.	24. Make and Read Graphs
10.5.03 Determine the mode, range, median (with an odd number of data points), and mean, given a set of data or a graph.	25. Statistics and Data Analysis
10.5.04 Solve problems involving the probability of a simple event, including representing the probability as a fraction between zero and one.	28. Probability
10.5.05 Apply the fundamental counting principle in a simple problem (e.g., How many different combinations of one-scoop ice cream cones can be made with 3 flavors and 2 types of cones?).	28. Probability