

# Hands-On Standards Deluxe

Grades: 7, 8

States: Texas Essential Knowledge and Skills (TEKS)

Subjects: Mathematics

Texas Essential Knowledge and Skills (TEKS)  
Mathematics  
Grade 7

TEKS	TX.111.23 (7.1)	Number, operation, and quantitative reasoning. The student represents and uses numbers in a variety of equivalent forms.
STUDENT EXPECTATION	(7.1) (A)	<p>The student is expected to compare and order integers and positive rational numbers.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.1) (B)	<p>The student is expected to convert between fractions, decimals, whole numbers, and percents mentally, on paper, or with a calculator.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.1) (C)	<p>The student is expected to represent squares and square roots using geometric models.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
TEKS	TX.111.23 (7.2)	Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions.
STUDENT EXPECTATION	(7.2) (A)	<p>The student is expected to represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> </ul>
STUDENT EXPECTATION	(7.2) (B)	<p>The student is expected to use addition, subtraction, multiplication, and division to solve problems involving fractions and decimals.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> </ul>
STUDENT EXPECTATION	(7.2) (C)	<p>The student is expected to use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms.</p>

		<ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.2) (D)	<p>The student is expected to use division to find unit rates and ratios in proportional relationships such as speed, density, price, recipes, and student-teacher ratio.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.2) (E)	<p>The student is expected to simplify numerical expressions involving order of operations and exponents.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> </ul>
STUDENT EXPECTATION	(7.2) (F)	<p>The student is expected to select and use appropriate operations to solve problems and justify the selections.</p>
STUDENT EXPECTATION	(7.2) (G)	<p>The student is expected to determine the reasonableness of a solution to a problem.</p>
TEKS	TX.111.23 (7.3)	<p>Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships.</p>
STUDENT EXPECTATION	(7.3) (A)	<p>The student is expected to estimate and find solutions to application problems involving percent.</p>
STUDENT EXPECTATION	(7.3) (B)	<p>The student is expected to estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.</p>
TEKS	TX.111.23 (7.4)	<p>Patterns, relationships, and algebraic thinking. The student represents a relationship in numerical, geometric, verbal, and symbolic form.</p>
STUDENT EXPECTATION	(7.4) (A)	<p>The student is expected to generate formulas involving unit conversions, perimeter, area, circumference, volume, and scaling.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> </ul>
STUDENT EXPECTATION	(7.4) (B)	<p>The student is expected to graph data to demonstrate relationships in familiar concepts such as conversions, perimeter, area, circumference, volume, and scaling.</p>
STUDENT EXPECTATION	(7.4) (C)	<p>The student is expected to use words and symbols to describe the relationship between the terms in an arithmetic sequence (with a constant rate of change) and their positions in the sequence.</p>
TEKS	TX.111.23 (7.5)	<p>Patterns, relationships, and algebraic thinking. The student uses equations to solve problems.</p>
STUDENT EXPECTATION	(7.5) (A)	<p>The student is expected to use concrete and pictorial models to solve equations and use symbols to record the actions.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> </ul>

		<ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> </ul>
STUDENT EXPECTATION	(7.5) (B)	<p>The student is expected to formulate problem situations when given a simple equation and formulate an equation when given a problem situation.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> </ul>
TEKS	TX.111.23 (7.6)	Geometry and spatial reasoning. The student compares and classifies two- and three-dimensional figures using geometric vocabulary and properties.
STUDENT EXPECTATION	(7.6) (A)	The student is expected to use angle measurements to classify pairs of angles as complementary or supplementary.
STUDENT EXPECTATION	(7.6) (B)	<p>The student is expected to use properties to classify triangles and quadrilaterals.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> </ul>
STUDENT EXPECTATION	(7.6) (C)	<p>The student is expected to use properties to classify three-dimensional figures, including pyramids, cones, prisms, and cylinders.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(7.6) (D)	<p>The student is expected to use critical attributes to define similarity.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> </ul>
TEKS	TX.111.23 (7.7)	Geometry and spatial reasoning. The student uses coordinate geometry to describe location on a plane.
STUDENT EXPECTATION	(7.7) (A)	<p>The student is expected to locate and name points on a coordinate plane using ordered pairs of integers.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> </ul>
STUDENT EXPECTATION	(7.7) (B)	<p>The student is expected to graph reflections across the horizontal or vertical axis and graph translations on a coordinate plane.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
TEKS	TX.111.23 (7.8)	Geometry and spatial reasoning. The student uses geometry to model and describe the physical world.
STUDENT EXPECTATION	(7.8) (A)	The student is expected to sketch three-dimensional figures when given the top, side, and front views.
STUDENT EXPECTATION	(7.8) (B)	The student is expected to make a net (two-dimensional model) of the surface area of a three-dimensional figure.

		<ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(7.8) (C)	The student is expected to use geometric concepts and properties to solve problems in fields such as art and architecture.
TEKS	TX.111.23 (7.9)	Measurement. The student solves application problems involving estimation and measurement.
STUDENT EXPECTATION	(7.9) (A)	The student is expected to estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes.
STUDENT EXPECTATION	(7.9) (B)	<p>The student is expected to connect models for volume of prisms (triangular and rectangular) and cylinders to formulas of prisms (triangular and rectangular) and cylinders.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(7.9) (C)	The student is expected to estimate measurements and solve application problems involving volume of prisms (rectangular and triangular) and cylinders.
TEKS	TX.111.23 (7.10)	Probability and statistics. The student recognizes that a physical or mathematical model can be used to describe the experimental and theoretical probability of real-life events.
STUDENT EXPECTATION	(7.10) (A)	The student is expected to construct sample spaces for simple or composite experiments.
STUDENT EXPECTATION	(7.10) (B)	<p>The student is expected to find the probability of independent events.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>
TEKS	TX.111.23 (7.11)	Probability and statistics. The student understands that the way a set of data is displayed influences its interpretation.
STUDENT EXPECTATION	(7.11) (A)	The student is expected to select and use an appropriate representation for presenting and displaying relationships among collected data, including line plot, line graph, bar graph, stem and leaf plot, circle graph, and Venn diagrams, and justify the selection.
STUDENT EXPECTATION	(7.11) (B)	<p>The student is expected to make inferences and convincing arguments based on an analysis of given or collected data.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> </ul>
TEKS	TX.111.23 (7.12)	Probability and statistics. The student uses measures of central tendency and range to describe a set of data.
STUDENT EXPECTATION	(7.12) (A)	<p>The student is expected to describe a set of data using mean, median, mode, and range.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>

STUDENT EXPECTATION	(7.12) (B)	The student is expected to choose among mean, median, mode, or range to describe a set of data and justify the choice for a particular situation.
TEKS	TX.111.23 (7.13)	Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.
STUDENT EXPECTATION	(7.13) (A)	<p>The student is expected to identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.13) (B)	<p>The student is expected to use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.13) (C)	<p>The student is expected to select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>

		<ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.13) (D)	<p>The student is expected to select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
TEKS	TX.111.23 (7.14)	Underlying processes and mathematical tools. The student communicates about Grade 7 mathematics through informal and mathematical language, representations, and models.
STUDENT EXPECTATION	(7.14) (A)	<p>The student is expected to communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(7.14) (B)	<p>The student is expected to evaluate the effectiveness of different representations to communicate ideas.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>

		<ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
<b>TEKS</b>	<b>TX.111.23 (7.15)</b>	<b>Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</b>
<b>STUDENT EXPECTATION</b>	<b>(7.15) (A)</b>	The student is expected to make conjectures from patterns or sets of examples and non-examples.
<b>STUDENT EXPECTATION</b>	<b>(7.15) (B)</b>	<p>The student is expected to validate his/her conclusions using mathematical properties and relationships.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>

Texas Essential Knowledge and Skills (TEKS)  
Mathematics  
Grade 8

<b>TEKS</b>	<b>TX.111.24 (8.1)</b>	<b>Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations.</b>
<b>STUDENT EXPECTATION</b>	<b>(8.1) (A)</b>	<p>The student is expected to compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals.</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
<b>STUDENT EXPECTATION</b>	<b>(8.1) (B)</b>	The student is expected to select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.
<b>STUDENT EXPECTATION</b>	<b>(8.1) (C)</b>	<p>The student is expected to approximate (mentally and with calculators) the value of irrational numbers as they arise from problem situations (such as pi, square root of 2).</p> <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
<b>STUDENT EXPECTATION</b>	<b>(8.1) (D)</b>	The student is expected to express numbers in scientific notation, including negative exponents, in appropriate problem situations.
<b>TEKS</b>	<b>TX.111.24</b>	<b>Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and</b>

	(8.2)	justify solutions.
STUDENT EXPECTATION	(8.2) (A)	The student is expected to select appropriate operations to solve problems involving rational numbers and justify the selections.
STUDENT EXPECTATION	(8.2) (B)	The student is expected to use appropriate operations to solve problems involving rational numbers in problem situations.
STUDENT EXPECTATION	(8.2) (C)	The student is expected to evaluate a solution for reasonableness.
STUDENT EXPECTATION	(8.2) (D)	The student is expected to use multiplication by a constant factor (unit rate) to represent proportional relationships. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
TEKS	TX.111.24 (8.3)	Patterns, relationships, and algebraic thinking. The student identifies proportional or non-proportional linear relationships in problem situations and solves problems.
STUDENT EXPECTATION	(8.3) (A)	The student is expected to compare and contrast proportional and non-proportional linear relationships. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> </ul>
STUDENT EXPECTATION	(8.3) (B)	The student is expected to estimate and find solutions to application problems involving percents and other proportional relationships such as similarity and rates.
TEKS	TX.111.24 (8.4)	Patterns, relationships, and algebraic thinking. The student makes connections among various representations of a numerical relationship.
STUDENT EXPECTATION	(8.4) (A)	The student is expected to generate a different representation of data given another representation of data (such as a table, graph, equation, or verbal description). <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> </ul>
TEKS	TX.111.24 (8.5)	Patterns, relationships, and algebraic thinking. The student uses graphs, tables, and algebraic representations to make predictions and solve problems.
STUDENT EXPECTATION	(8.5) (A)	The student is expected to predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations.
STUDENT EXPECTATION	(8.5) (B)	The student is expected to find and evaluate an algebraic expression to determine any term in an arithmetic sequence (with a constant rate of change).
TEKS	TX.111.24 (8.6)	Geometry and spatial reasoning. The student uses transformational geometry to develop spatial sense.
STUDENT EXPECTATION	(8.6) (A)	The student is expected to generate similar figures using dilations including enlargements and reductions. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>

STUDENT EXPECTATION	(8.6) (B)	The student is expected to graph dilations, reflections, and translations on a coordinate plane. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
TEKS	TX.111.24 (8.7)	Geometry and spatial reasoning. The student uses geometry to model and describe the physical world.
STUDENT EXPECTATION	(8.7) (A)	The student is expected to draw three-dimensional figures from different perspectives.
STUDENT EXPECTATION	(8.7) (B)	The student is expected to use geometric concepts and properties to solve problems in fields such as art and architecture.
STUDENT EXPECTATION	(8.7) (C)	The student is expected to use pictures or models to demonstrate the Pythagorean Theorem.
STUDENT EXPECTATION	(8.7) (D)	The student is expected to locate and name points on a coordinate plane using ordered pairs of rational numbers. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> </ul>
TEKS	TX.111.24 (8.8)	Measurement. The student uses procedures to determine measures of three-dimensional figures.
STUDENT EXPECTATION	(8.8) (A)	The student is expected to find lateral and total surface area of prisms, pyramids, and cylinders using concrete models and nets (two-dimensional models). <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(8.8) (B)	The student is expected to connect models of prisms, cylinders, pyramids, spheres, and cones to formulas for volume of these objects. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(8.8) (C)	The student is expected to estimate measurements and use formulas to solve application problems involving lateral and total surface area and volume.
TEKS	TX.111.24 (8.9)	Measurement. The student uses indirect measurement to solve problems.
STUDENT EXPECTATION	(8.9) (A)	The student is expected to use the Pythagorean Theorem to solve real-life problems. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> </ul>
STUDENT EXPECTATION	(8.9) (B)	The student is expected to use proportional relationships in similar two-dimensional figures or similar three-dimensional figures to find missing measurements.
TEKS	TX.111.24	Measurement. The student describes how changes in dimensions affect linear, area, and volume measures.

	(8.10)	
STUDENT EXPECTATION	(8.10) (A)	The student is expected to describe the resulting effects on perimeter and area when dimensions of a shape are changed proportionally. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> </ul>
STUDENT EXPECTATION	(8.10) (B)	The student is expected to describe the resulting effect on volume when dimensions of a solid are changed proportionally.
TEKS	TX.111.24 (8.11)	Probability and statistics. The student applies concepts of theoretical and experimental probability to make predictions.
STUDENT EXPECTATION	(8.11) (A)	The student is expected to find the probabilities of dependent and independent events. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>
STUDENT EXPECTATION	(8.11) (B)	The student is expected to use theoretical probabilities and experimental results to make predictions and decisions.
STUDENT EXPECTATION	(8.11) (C)	The student is expected to select and use different models to simulate an event.
TEKS	TX.111.24 (8.12)	Probability and statistics. The student uses statistical procedures to describe data.
STUDENT EXPECTATION	(8.12) (A)	The student is expected to select the appropriate measure of central tendency or range to describe a set of data and justify the choice for a particular situation.
STUDENT EXPECTATION	(8.12) (B)	The student is expected to draw conclusions and make predictions by analyzing trends in scatterplots. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>
STUDENT EXPECTATION	(8.12) (C)	The student is expected to select and use an appropriate representation for presenting and displaying relationships among collected data, including line plots, line graphs, stem and leaf plots, circle graphs, bar graphs, box and whisker plots, histograms, and Venn diagrams, with and without the use of technology.
TEKS	TX.111.24 (8.13)	Probability and statistics. The student evaluates predictions and conclusions based on statistical data.
STUDENT EXPECTATION	(8.13) (A)	The student is expected to evaluate methods of sampling to determine validity of an inference made from a set of data. <ul style="list-style-type: none"> <li>Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> </ul>
STUDENT EXPECTATION	(8.13) (B)	The student is expected to recognize misuses of graphical or numerical information and evaluate predictions and conclusions based on data analysis.
TEKS	TX.111.24	Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to

	(8.14)	everyday experiences, investigations in other disciplines, and activities in and outside of school.
STUDENT EXPECTATION	(8.14) (A)	<p>The student is expected to identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(8.14) (B)	<p>The student is expected to use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(8.14) (C)	<p>The student is expected to select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>

STUDENT EXPECTATION	(8.14) (D)	<p>The student is expected to select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
TEKS	TX.111.24 (8.15)	Underlying processes and mathematical tools. The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models.
STUDENT EXPECTATION	(8.15) (A)	<p>The student is expected to communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
STUDENT EXPECTATION	(8.15) (B)	<p>The student is expected to evaluate the effectiveness of different representations to communicate ideas.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>
TEKS	TX.111.24 (8.16)	Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.

STUDENT EXPECTATION	(8.16) (A)	The student is expected to make conjectures from patterns or sets of examples and non-examples.
STUDENT EXPECTATION	(8.16) (B)	<p>The student is expected to validate his/her conclusions using mathematical properties and relationships.</p> <ul style="list-style-type: none"> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Algebra (43045-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Data Analysis and Probability (43045-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Geometry (43045-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Measurement (43045-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 5-6: Number and Operations (43045-1)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Algebra (43046-3)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Data Analysis and Probability (43046-5)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Geometry (43046-2)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Measurement (43046-4)</li> <li>• Hands-On Standards Deluxe Edition Kit, Grades 7-8: Number and Operations (43046-1)</li> </ul>

© 2008, EdGate Correlation Services, LLC. All Rights reserved.