

Wylie ISD Curriculum

Subject Area	Math	Bundle #:	1
Grade/Level	6th	Weeks:	1-3
Overview			
Number Concepts – Exacts and Estimates, Coordinate Plane, Integers			
TEKS - Texas Knowledge & Skills			
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification	
<p>6.1 Number, operation and quantitative reasoning. The student represents and uses rational numbers in a variety of equivalent forms.</p> <p>6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies and divides to solve problems and justify solutions.</p> <p>6.7 Geometry and spatial reasoning. The student uses coordinate geometry to identify location in two dimensions.</p>	<p>6.1C Use integers to represent real-life situations.</p> <p>6.2B Use addition and subtraction to solve problems involving decimals.</p> <p>6.2D Estimate and round to approximate reasonable results and to solve problems where exact answers are not required.</p> <p>6.7 The student is expected to locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers.</p>	<ul style="list-style-type: none"> • altitude, depth, elevation • temperature • finance (deposit, withdrawal) • change including a loss or gain • use decimals • information/numbers expressed as ranges or solutions expressed as ranges • use strategies for estimation (compatible numbers, rounded numbers, etc) • round to the highest place of the smallest number (not single digits) in a series of numbers • round money to the nearest dime and dollar • round decimals and fractions to nearest whole number • use only first quadrant • use a variety of grids (using different incremental units) • locate points using fraction and decimal coordinates • plot the vertices of geometric shapes • determine the relationship of x to y in a coordinate point 	

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		<p>Example: (3, 5) The value of the x-coordinate is 2 less than the value of the y-coordinate. The value of the y-coordinate is 2 more than the value of the x-coordinate.</p>
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11C 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> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.12A Communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information <ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions <ul style="list-style-type: none"> • model problems with multiple representations • solve problems in using more than one tool • use tools to check reasonableness of answers <ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • compose written explanation that demonstrates understanding

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<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.13A Make conjectures from patterns or sets of examples and non-examples.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information <ul style="list-style-type: none"> • use of charts or visual information • showing a pattern, examples, and/or non-examples • expecting students to choose a correct response by analyzing the pattern, examples, or non-examples <ul style="list-style-type: none"> • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11C 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> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information <ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems using more than one tool • use tools to check reasonableness of answers
<p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p>	<p>6.12A Communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • compose written explanation that demonstrates understanding
<p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers

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Subject Area	Math	Bundle #:	4
Grade/Level	6th	Weeks:	10-12
Overview			
Number Concepts –Model Fraction Operations; Fractions/Decimals/Percents			
TEKS - Texas Knowledge & Skills			
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification	
<p>6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve problems and justify solutions</p>	<p>6.2A Model addition and subtraction situations involving fractions with objects, pictures, words, and numbers.</p>	<ul style="list-style-type: none"> • use mixed numbers and fractions • model with like and unlike denominators 	
<p>6.3 Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships.</p>	<p>6.3B Represent ratios and percents with concrete models, fractions, and decimals.</p>	<ul style="list-style-type: none"> • conversions of fractions, decimals and percents between all forms • use fractions in all forms(improper , mixed numbers) • use decimals and fractions (use models i.e. fraction bars, fraction circles, fraction squares, percent bars, and benchmark bars) • use percents over and under 100 	
<p>6.9 Probability and statistics. The student uses experimental and theoretical probability to make predictions.</p>	<p>6.9B Find the probabilities of a simple event and its complement and describe the relationship between the two.</p>	<ul style="list-style-type: none"> • perform only simple events, one thing happening • collect data using tables • display results as a fraction in simplest form 	
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A 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"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information 	
	<p>6.11B Use a problem-solving model that incorporates</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem 	

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<p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.12B Evaluate the effectiveness of different representations to communicate ideas.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems using more than one tool • use tools to check reasonableness of answers • determining reasonableness of representation • model problems with multiple representations • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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Subject Area	Math	Bundle #:	5
Grade/Level	6th	Weeks:	13-15
Overview			
Number Concepts – Add and Subtract Fractions			
TEKS - Texas Knowledge & Skills			
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification	
<p>6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies and divides to solve problems and justify solutions.</p>	<p>6.2B Use addition and subtraction to solve problems involving fractions and decimals.</p>	<ul style="list-style-type: none"> • use mixed numbers and fractions • use decimals 	
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11B Use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems in using more than one tool • use tools to check reasonableness of answers 	

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6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.	6.13B Validate his/her conclusions using mathematical properties and relationships.	<ul style="list-style-type: none"> determining reasonableness of representation model problems with multiple representations justify correct and incorrect answers
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Subject Area	Math	Bundle #:	6
Grade/Level	6th	Weeks:	16-18

Overview

Algebraic Reasoning – Ratios and Proportions

TEKS - Texas Knowledge & Skills

Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<p>6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve problems and justify solutions.</p>	<p>6.2C Use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates.</p>	<ul style="list-style-type: none"> use of proportions focusing on scale factors, not on cross products involve whole number situations relevant to real world use fractions to define remainders verify solutions using technology
<p>6.3 Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships.</p>	<p>6.3A Use ratios to describe proportional situations.</p> <p>6.3B Represent ratios and percents with concrete models, fractions, and decimals.</p>	<ul style="list-style-type: none"> use ratios that may or may not be in lowest terms represent ratios in a table, equation, or verbal description recognize the three written forms of a ratio (ex. 1:2, 1/2, 1 to 2) conversions of fractions, decimals and percents between all forms use fractions in all forms(improper , mixed numbers) use decimals and fractions (use models i.e. fraction bars, fraction circles, fraction squares, percent bars, and benchmark bars) use percents over and under 100

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<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>6.9 Probability and statistics. The student uses experimental and theoretical probability to make predictions.</p>	<p>6.3C Use ratios to make predictions in proportional situations.</p> <p>6.4A Use tables and symbols to represent and describe proportional and other relationships including those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area.</p> <p>6.9B Find the probabilities of a simple event and its complement and describe the relationship between the two.</p>	<ul style="list-style-type: none"> • set up a proportion problem from data in a table and solve from a verbal description and solve • demonstrates proportional situations involving length, capacity and volume, mass and weight, and time using customary and metric units • use metric and customary conversions • find functions or equations using variables (define) • perform only simple events, one thing happening • collect data using tables • display results as a fraction in simplest form
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11C 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</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems in using more than one tool

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<p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>backwards to solve a problem.</p> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use tools to check reasonableness of answers • use of charts or visual information • analysis of detailed written problem • compose written explanation that demonstrates understanding <ul style="list-style-type: none"> • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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Subject Area	Math	Bundle #:	7
Grade/Level	6th	Weeks:	19-21

Overview

Geometry		
TEKS - Texas Knowledge & Skills		
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>6.6 Geometry and spatial reasoning. The student uses geometric vocabulary to describe angles, polygons, and circles</p>	<p>6.4B Use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.</p> <p>6.6A Use angle measurements to classify angles as acute, obtuse, or right.</p>	<ul style="list-style-type: none"> • perimeter of regular polygons • circumference • area of squares, rectangles, circles, and triangles • volume of cubes and rectangular prisms <ul style="list-style-type: none"> • use shapes and other objects with acute, obtuse, right, or straight angles

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<p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.</p>	<p>6.6B Identify relationships involving angles in triangles and quadrilaterals.</p> <p>6.6C Describe the relationship between radius, diameter, and circumference of a circle.</p> <p>6.8C Measure angles</p>	<ul style="list-style-type: none"> • find the sum of degrees in a triangle and a quadrilateral • use of 'hash marks' to describe congruent sides and right angle mark • identify triangles and quadrilaterals by angles and sides • find the radius, diameter, or circumference from a given equation • compare equations to see relationships • use various forms of pi (π, ≈ 3, ≈ 3.14, $22/7$) • use a pictorial representation of a protractor and use an actual protractor to measure and construct angles to the nearest degree. • measure angles in a given figure • understand angle symbols • measure angles where the rays do not lie on zero degree as shown on the pictorial protractor • use other tools to measure angles including corner of paper
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.12A Communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • use of charts or visual information • analysis of detailed written problem • compose written explanation that demonstrates understanding

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<p>mathematical language, representations, and models.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>algebraic mathematical models.</p> <p>6.13A Make conjectures from patterns or sets of examples and non-examples.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use of charts or visual information • showing a pattern, examples, and/or non-examples • expecting students to choose a correct response by analyzing the pattern, examples, or non-examples • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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Subject Area	Math	Bundle #:	8
Grade/Level	6th	Weeks:	22-24

Overview

Measurement – Perimeter and Circumference; Area of Polygons

TEKS - Texas Knowledge & Skills

Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p>	<p>6.4A Use tables and symbols to represent and describe proportional and other relationships including those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area.</p> <p>6.4B Use tables of data to generate formulas representing relationships involving perimeter,</p>	<ul style="list-style-type: none"> • use metric and customary conversions • find functions or equations using variables (define) • perimeter of regular polygons • circumference • area of squares, rectangles, circles, and triangles

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<p>6.6 Geometry and spatial reasoning. The student uses geometric vocabulary to describe angles, polygons, and circles</p> <p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.</p>	<p>area, volume of a rectangular prism, etc.</p> <p>6.6C Describe the relationship between radius, diameter, and circumference of a circle.</p> <p>6.8A Estimate measurements (including circumference) and evaluate reasonableness of results.</p> <p>6.8B Select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight.</p>	<ul style="list-style-type: none"> • volume of cubes and rectangular prisms • find the radius, diameter, or circumference from a given equation • compare equations to see relationships • use various forms of pi (π, ≈ 3, ≈ 3.14, $22/7$) • find length, perimeter, and circumference in metric and customary units • find area in metric and customary units of triangles & quadrilaterals • use various units of time • use the conversions and formulas on the mathematics chart to solve problems • measure with the ruler on the mathematics chart • use the conversions and formulas on the mathematics chart to solve problems (involving length, weight, and time) & interpret • identify and interpret degree scale of a thermometer • use the given dimensions of a figure to solve problems
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11C Select or develop an appropriate problem-solving</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • use of charts or visual information • analysis of detailed written problem

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<p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>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> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.12A Communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems using more than one tool • use tools to check reasonableness of answers • use of charts or visual information • analysis of detailed written problem • compose written explanation that demonstrates understanding • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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Subject Area	Math	Bundle #:	9
Grade/Level	6th	Weeks:	25-27
Overview			
Measurement- Circumference, Circle Area, Volume; Converting Measurement (customary and metric)			
TEKS - Texas Knowledge & Skills			
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification	
<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.</p>	<p>6.4A Use tables and symbols to represent and describe proportional and other relationships including those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area.</p> <p>6.8A Estimate measurements (including circumference) and evaluate reasonableness of results.</p> <p>6.8B Select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight.</p>	<ul style="list-style-type: none"> • use metric and customary conversions • find functions or equations using variables (define) • find length, perimeter, and circumference in metric and customary units • find area in metric and customary units of circles, triangles, quadrilaterals • use various units of time • use the conversions and formulas on the mathematics chart to solve problems • measure with the ruler on the mathematics chart • use the conversions and formulas on the mathematics chart to solve problems (involving length, volume, weight, and time) & interpret • identify and interpret degree scale of a thermometer • use the given dimensions of a figure to solve problems 	

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	<p>6.8D Convert measures within the same measurement system (customary and metric) based on relationships between units.</p>	<ul style="list-style-type: none"> • all measures on the formula chart • use given dimensions of a figure to solve problems • use proportional relationships
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11C 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> <p>6.12A Communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problems sequentially • written solutions as well as numerical solutions • determining reasonableness of representation • model problems with multiple representations • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers

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Subject Area	Math	Bundle #:	10
Grade/Level	6th	Weeks:	28-30
Overview			
Probability and Statistics			
TEKS - Texas Knowledge & Skills			
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification	
<p>6.9 Probability and statistics. The student uses experimental and theoretical probability to make predictions.</p>	<p>6.9A Construct sample spaces using lists, and tree diagrams</p>	<ul style="list-style-type: none"> construct spaces for experimental and theoretical probabilities use lists, tables and tree diagrams 	
	<p>6.9B Find the probabilities of a simple event and its complement and describe the relationship between the two.</p>	<ul style="list-style-type: none"> perform only simple events, one thing happening collect data using tables display results as a fraction in simplest form 	
<p>6.10 Probability and statistics. The student uses statistical representations to analyze data.</p>	<p>6.10A Select and use an appropriate representation for presenting and displaying different graphical representations of the same data including line plot, line graph, bar graph, and stem and leaf plot.</p>	<ul style="list-style-type: none"> use various representations of the same data use technology, including graphing calculators, EXCEL spreadsheet 	
	<p>6.10B Identify mean (using concrete objects and pictorial models), median, mode, and range of a set of data.</p>	<ul style="list-style-type: none"> connect the mean, median, mode, and/or range with a given set of data use data from tables, graphs, lists, and word problems analyze how adding a piece of data will change each measure 	

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	<p>6.10C Sketch circle graphs to display data.</p> <p>6.10D Solve problems by collecting, organizing, displaying, and interpreting data.</p>	<ul style="list-style-type: none"> • connect the relationship between percent and fractions • create displays with and without technology • line graph • line plot • bar graph • circle graph • stem and leaf plot
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>6.12 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p> <p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.11A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.</p> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.12B Evaluate the effectiveness of different representations to communicate ideas.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information • model problems with multiple representations • solve problems in using more than one tool • use tools to check reasonableness of answers • determining reasonableness of representation • model problems with multiple representations • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers

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<p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • model problems with multiple representations • solve problems using more than one tool • use tools to check reasonableness of answers • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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Subject Area	Math	Bundle #:	12
Grade/Level	6th	Weeks:	34-36

Overview

Circles, circle graphs, problem solving

TEKS - Texas Knowledge & Skills

Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<p>6.5 Patterns, relationships, and algebraic thinking. The student uses letters to represent an unknown in an equation. The student is expected to formulate an equation from a problem.</p>	<p>6.5 The student is expected to formulate equations from problem situations described by linear relationships.</p>	<ul style="list-style-type: none"> • formulate one-step equations • use of variables to represent unknowns • utilize multiplication in various forms (parenthesis, 3n, of and •) • work with data in tables • utilize division in various forms (÷, /)
<p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles</p>	<p>6.8A Estimate measurements (including circumference) and evaluate reasonableness of results.</p>	<ul style="list-style-type: none"> • find length, perimeter, and circumference in metric and customary units • find area in metric and customary units of circles, triangles, quadrilaterals • use various units of time • use the conversions and formulas on the mathematics chart to solve problems

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<p>6.10 Probability and statistics. The student uses statistical representations to analyze data.</p>	<p>6.8B Select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight.</p> <p>6.8C Measure angles.</p> <p>6.10C Sketch circle graphs to display data.</p> <p>6.10D Solve problems by collecting, organizing, displaying, and interpreting data.</p>	<ul style="list-style-type: none"> • measure with the ruler on the mathematics chart • use the conversions and formulas on the mathematics chart to solve problems (involving length, volume, weight, and time) & interpret • identify and interpret degree scale of a thermometer • use the given dimensions of a figure to solve problems • use a pictorial representation of a protractor and use an actual protractor to measure and construct angles to the nearest degree. • measure angles in a given geometric figure • understand angle symbols • measure angles where the rays do not lie on zero degree as shown on the pictorial protractor • use other tools to measure angles including corner of paper • connect the relationship between percent and fractions • create displays with and without technology • line graph • line plot • bar graph • circle graph • stem and leaf plot
<p>6.11 Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p>	<p>6.11A 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"> • use of charts or visual information • analysis of detailed written problem • data in a graph • use of money • finding missing information

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<p>6.13 Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.</p>	<p>6.11B Use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p> <p>6.11D Select tools including real objects, manipulatives, paper/pencil, and technology or techniques including mental math, estimation, and number sense to solve problems.</p> <p>6.13B Validate his/her conclusions using mathematical properties and relationships.</p>	<ul style="list-style-type: none"> • use of charts or visual information • analysis of detailed written problem • data in a graph • solve problem using several different models • organize multi-step problem sequentially • written solutions as well as numerical solutions • model problems with multiple representations • solve problems using more than one tool • use tools to check reasonableness of answers • determining reasonableness of representation • model problems with multiple representations • justify correct and incorrect answers
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