

UNIT/ORGANIZING PRINCIPLE:		Pacing: First Nine Weeks			
Essential Question(s)	Review: Whole Number Place Value				
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding	
WEEK 1 Whole Number Place Value	Review 3 rd and 4 th grade benchmarks. <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i> <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i>	<u>MA.2.A.1.2:</u> <u>Identify and name numbers through thousands in terms of place value, and apply this knowledge to expanded notation.</u>	Benchmarks Ones Tens Hundreds Thousands Ten Thousands Hundred Thousands Thousands	<ul style="list-style-type: none"> • Use manipulatives • Refer to Harcourt Math Text from prior year. • http://www.floridastandards.org/Standards/PublicPreviewAccessPoint6874.aspx • 	
WEEK 2 Reviewing 3 rd and 4 th Grade Decimal Place Value	<i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i>		Decimal Tenths Hundredreths thousandths	<ul style="list-style-type: none"> • Use manipulatives • Harcourt Text from prior year • http://nlvm.usu.edu/en/nav/frames_asid_334_g_2_t_1.html?from=category_g_2_t_1.html 	

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UNIT/ORGANIZING PRINCIPLE:				Pacing: First Nine Weeks
Essential Question(s)	Big Idea 1: Develop an understanding of and fluency with division of whole numbers			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 3-4 Understanding Division	<p>Describe the process of finding quotients involving multi-digit dividends using models, place value, properties, and the relationship of division to multiplication.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p> <p>Estimate quotients or calculate them mentally depending on the context and numbers involved.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p>	<p>MA.5.A.1.1</p> <p>MA.5.A.1.2</p>	<p>Remainder</p> <p>Inverse operations</p> <p>Distributive property</p>	<p>1. Demonstrate meaning of division as separating into equal groups</p> <ul style="list-style-type: none"> Use manipulatives <p>2. Use place value positions to understand quotients.</p> <ul style="list-style-type: none"> 639 divided by 3 leads to a quotient of hundreds, tens, ones Distributive property to show $(600 + 30 + 9) \div 3$ <p>3. Shows that division is an inverse operation of multiplication</p> <p>4. Estimate quotients</p> <ul style="list-style-type: none"> Round dividend to the nearest 10, 100, 1000 Use a know fact, i.e. : 286 divided by 40 is 7 (286 is close to 280 and 280 divided by 40 is 7 since $40 \times 7 = 280$) Use real-world applications like dividing up an estimation jar given a known quantity

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UNIT/ORGANIZING PRINCIPLE:				Pacing: First/Second Nine Weeks
Essential Question(s)	Supporting Idea 4: Algebra			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 8-10	Use the properties of equality to solve numerical and real world situations. <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i> <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i>	MA.5.A.4.1	Exponents Algebraic expression Order of operations Evaluate Base	<ul style="list-style-type: none"> Use the properties of equality to solve numerical and real world situations. Use the order of operations to simplify expressions which include exponents. Describe real world situations using positive and negative numbers. Compare, order, and graph integers.
WEEK 11 Using positive and negative numbers in the real world	Describe real-world situations using positive and negative numbers. <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i>	MA.5.A.6.3	Integers	<ol style="list-style-type: none"> Present a variety of situations involving positive and negative numbers <ul style="list-style-type: none"> Depositing/withdrawing money from the bank, temperatures above/below freezing, land elevations above/below sea level Involve students in constructing their own real world situations using positive and negative numbers

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UNIT/ORGANIZING PRINCIPLE:				Pacing: Second Nine Weeks
Essential Question(s)	Supporting Idea 6: Number and Operations			
Concepts/ Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 12 (3 days) Order and Graph integers on a number line	Compare, order, and graph integers, including integers shown on a number line. <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i>	MA.5.A.6.4	Relations	Compare integers on a number line Determine greater than or less than of various integers depicted on a number line Order and graph integers on a number line using real-world situations Plot positive/negative numbers on a number line

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UNIT/ORGANIZING PRINCIPLE:				Pacing: Second Nine Weeks
Essential Question(s)	Supporting Idea 7: Data Analysis Supporting Idea 4: Algebra			
Concepts/ Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 13-14	<p>Construct and describe a graph showing continuous data, such as a graph of a quantity that changes over time.</p> <p><i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i></p> <p>Differentiate between continuous and discrete data, and determine ways to represent those using graphs and diagrams.</p> <p><i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i></p> <p>Construct and analyze line graphs and double bar graphs.</p> <p><i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i></p> <p>Solves problems by generating collecting, organizing, displaying and analyzing data using histograms, bar graphs, circle graphs, lie graphs, pictographs, and charts.</p> <p>Analyzes real-world data to</p>	<p>MA.5.A.4.2</p> <p>MA.5.S.7.2</p> <p>MA.5.S.7.1</p> <p>MA.E.1.2.1</p> <p>MA.E.1.2.3</p>	<p>Break</p> <p>Continuous data</p> <p>Discrete data</p> <p>Double bar graph)</p> <p>Axes of a graph</p> <p>Axis coordinate grid or plane</p> <p>Coordinates</p> <p>horizontal</p> <p>Ordered pair</p> <p>Plane</p> <p>X-axis</p> <p>Y-axis</p> <p>Trend</p>	<p>2. Determine situations when each type of graph is appropriate</p> <ul style="list-style-type: none"> Bar graphs used with data that is consistent Double bar graphs used with consistent data decided into 2 subgroups, i.e.: boys –v- girls Line graphs used with data that changes over time <ol style="list-style-type: none"> Discrete data Continuous data Temperature (positive and negative values) Venn diagrams used with data that overlaps <p>3. Construct and describe graphs showing continuous data</p> <ul style="list-style-type: none"> Ex: a line graph showing a bicycle ride starting out at 5 mph, steadily increasing 2 mph, then remaining constant for 2 hours, then suddenly stopping at the finish line. <p>1. Create situations to construct line graphs and double bar graphs (including temperature)</p> <ul style="list-style-type: none"> Gather data Construct the appropriate graphs <p>2. Analyze line graphs and double bar graphs</p> <ul style="list-style-type: none"> Answer questions about their graph. i.e.: in which month did the plant grow the most?

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	<p>recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line, graphs, pictographs, and circle graphs</p> <p>Uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.</p>	MA.B.1.2.1	<p>Discuss trends on the graph. i.e.: when does the amount of rainfall increase, decrease, stay the same</p> <p>1. Circle graphs</p> <ul style="list-style-type: none"> • Introduce and interpret circle graphs <ol style="list-style-type: none"> 1) Determine actual number each piece (percentage represents) • Create circle graphs <ol style="list-style-type: none"> 1) Using a compass, draw circles 2) Record diameter and circumference 3) Include benchmark angles (i.e. 90° angle for 25%) to accurate representation 4) Estimate angle degrees based on benchmark angles <p>Interpret and analyze collected data</p>
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UNIT/ORGANIZING PRINCIPLE:				Pacing: Second/Third Nine Weeks
Essential Question(s)	Supporting Idea 6: Number and Operations			
Big Idea 2: Develop an understanding of and fluency with addition and subtraction of fractions				
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
<p>WEEK 15-19</p> <p>Fractions</p> <p>Add and subtract fractions with like and unlike denominators fluently</p> <p>Chp. 6&7</p>	<p>Identify and relate prime and composite numbers, factors, and multiples within the context of fractions.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p> <p>Determine the prime factorization of numbers.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p> <p>Add and subtract fractions and decimals fluently, and verify the reasonableness of results, including in problem situations.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p>	<p>MA.5.A.6.1</p> <p>MA.5.A.2.4</p> <p>MA.5.A.2.2</p>	<p>Prime factorization</p> <p>Greatest Common factor (GCF)</p> <p>Least common multiple (LCM)</p>	<p>6. Identify factors as all the numbers that divide into another number evenly</p> <ul style="list-style-type: none"> • Create/draw/display arrays of various numbers • Use these to list the factors of various numbers • <p>7. Identify numbers with only two factors as prone and numbers with more than tow factors as composite</p> <p>8. Use skip counting to identify the multiples of a number, i.e. : 3,6,9,12, etc.</p> <p>9. List the factors of a number using a factor tree</p> <ul style="list-style-type: none"> • List any two factors of a number • Continue listing factors of each number until you are left with only prime numbers • List these as prime factorization of the number • <p>10 . Add and subtract fractions with like denominators</p> <ul style="list-style-type: none"> • Denominators stay the same-add or subtract the numerators • Simply results (if possible) using the Greatest Common Factor (GCF)

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				<ul style="list-style-type: none"> • Change improper fractions to mixed numbers • Verify reasonableness of results <p>5. Add fractions with unlike denominators</p> <ul style="list-style-type: none"> • Find the Least Common Multiple (LCM) of the denominators • Using the LCM, make equivalent fractions • Follow above steps <p>6. Subtract fractions with unlike denominators</p> <ul style="list-style-type: none"> • Follow above steps • Regroup from the whole number as necessary <p>7. Add and subtract decimals</p> <ul style="list-style-type: none"> • Indicate place value and importance when lining up decimals • Line up decimal points • Add, Subtract as usual • Use in real-world situations • Verify reasonableness results <p>8. Use addition and subtraction of decimals in real-work situations</p>
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UNIT/ORGANIZING PRINCIPLE:				Pacing: Third Nine Weeks
Essential Question(s)	Supporting Idea 5: Geometry and Measurement			
Big Idea 3: Describe three-dimensional shapes and analyze their properties, including volume and surface area.				
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 21-23 Measurement	<p>Derive and apply formulas for areas of parallelograms, triangles, and trapezoids from the area of a rectangle.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: High</i></p> <p>Compare, contrast, and convert units of measure within the same dimension (length, mass, or time) to solve problems.</p> <p><i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Moderate</i></p>	<p>MA.5.G.5.4</p> <p>MA.5.G.3.2</p>	<p>Area of a parallelogram</p> <p>Area of a triangle</p> <p>Area of a trapezoid</p> <p>Isosceles</p> <p>Base lateral faces</p> <p>Lateral area</p> <p>Surface area</p> <p>Formula for volume of a prism</p>	<p>1. Derive formulas for areas of parallelograms, triangles, and trapezoids</p> <ul style="list-style-type: none"> Use models of quadrilateral shapes to derive the formula for area as “base x height” to develop the formulas for these shapes, i.e. : triangles can be derived from using $\frac{1}{2}$ of a parallelogram, thus “base x height” divided by 2 Given numeric values of base and height, determine the areas of parallelograms, triangles, and trapezoids <p>2. Describe and define surface area</p> <ul style="list-style-type: none"> Describe and define surface area as “covering all surfaces” or “wrapping with no gaps or overlaps” <p>3. Determine surface area of prisms</p> <ul style="list-style-type: none"> Recognize the relationship between two-dimensional shapes as they form three dimensional solids Identify how many squares cover the surface of a cube, rectangular triangular, and trapezoidal prisms Find the surface area of above shapes by finding the area of the individual shapes and multiply it by the number of shapes

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5th Grade

Curriculum Map

Mathematics

				<p>4. Determine the number of same-sized units of volume needed to fill a prism</p> <ul style="list-style-type: none">• Use centimeter cubes to fill a larger cube – “cubic units:• Describe and define volume as “filling”• Develop and apply the formula of $V=L \times W \times H$•
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UNIT/ORGANIZING PRINCIPLE:				Pacing: Third Nine Weeks
Essential Question(s)	Supporting Idea 5: Geometry and Measurement			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 24-26 Geometry	Identify and plot ordered pairs on the first quadrant of the coordinate plane. <i>Cognitive Complexity/Depth of Knowledge</i> <i>Rating: Low</i>	MA.5.G.5.1	Axes of a graph Axis coordinate grid or plane Coordinates horizontal Ordered pair Plane X-axis Y-axis	1. Identify and plot ordered pairs on first quadrant of coordinate grid <ul style="list-style-type: none"> • Teach the direction to find ordered pair – horizontal, then vertical (x-axis, Y-axis) • Practice plotting orderings pairs using real-world situational problems.

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UNIT/ORGANIZING PRINCIPLE:				Pacing: Third Nine Weeks
Essential Question(s)	Big Idea 3: Describe three-dimensional shapes and analyze their properties, including volume and surface area.			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 27-28 Area/volume	Analyze and compare the properties of two-dimensional figures and three-dimensional solids (polyhedra), including the number of edges, faces, vertices, and types of faces. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>	MA.5.G.3.1	Polyhedra Front view Side view Top view Vertical angles	<ol style="list-style-type: none"> Analyze and compare properties of two-dimensional shapes <ul style="list-style-type: none"> Segments, lines, rays, parallel, intersecting lines. Angles Analyze and compare properties of three-dimensional solids <ul style="list-style-type: none"> Edges Vertices Number and identification of faces Compare and contrast two-dimensional shapes – v-three dimensional shapes <ul style="list-style-type: none"> Use Venn Diagram/Attribute sorter to record Use two-dimensional figures to build a three dimensional solid <ul style="list-style-type: none"> Draw nets Show front, side, and bottom view of three-dimensional solids and construct Build three-dimensional solid figure from a two-dimensional plane shape Discover similarities and differences as new shapes are created.

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UNIT/ORGANIZING PRINCIPLE:				Pacing: Fourth Nine Weeks
Essential Question(s)	Supporting Idea 6: Number and Operations			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 29 (4 days) Patterns & Functions	Generalizes a pattern relation, or function to explain how a change in one quantity results in a change in another	MA.D.1.2.2		**Patterns and functions Analyze and generalize number patterns States and applies rule to complete tables and charts

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Essential Question(s)	Supporting Idea 6: Number and Operations			
Concepts/Content	Learning Targets/Skills	Benchmarks	Key Terminology	Essential Content & Understanding
WEEK 30(2 days) Probability & Statistics	<p>Uses models such as tree diagrams, to display possible outcomes and to predict events</p> <p>Predicts the likelihood of simple events occurring.</p> <p>Uses statistical data about life situations to make predictions and justifies reasoning</p>	<p>**MA.E.2.2.1</p> <p>**MA.E.2.2.2</p> <p>**MA.E.3.2.2</p>		<p>1. Identify possible outcomes of an experiment using concrete materials</p> <ul style="list-style-type: none"> • Spinners, number cubes • Determine probability ratio <p>2. Make predications and generalizations about future outcomes based on trends in data collected</p> <p>3. ** Uses combinations represented on a tree diagram to make predications about data</p>

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