



BCSD Sixth Grade Mathematics Curriculum Map

Time	Standards	Topics	Essential Questions	Content and Skills	Assessments	Resources	Options
SEPTEMBER- OCTOBER	MST3.06.NO6.01 MST3.06.NO6.02 MST3.06.NO6.03 MST3.06.NO6.04 MST3.06.NO6.05	<p>NUMBER SYSTEMS AND PROPERTIES</p> <p>NUMBER SYSTEMS MULTIPLICATION</p> <p>DIVISION</p> <p>ROUNDING NUMBERS</p> <p>READ AND WRITE NUMBERS</p> <p>PROPERTIES (COMMUTATIVE, ASSOCIATIVE, IDENTITY, ZERO PROPERTY, DISTRIBUTIVE, AND INVERSE)</p>	<p>WHAT STEPS ARE NECESSARY TO ADD, SUBTRACT, MULTIPLY, OR DIVIDE?</p> <p>HOW ARE ROUNDED NUMBERS USED IN EVERYDAY LIFE SITUATIONS?</p> <p>WHEN AND HOW CAN ROUNDED NUMBERS BE USED?</p> <p>HOW ARE NUMBERS WRITTEN IN WORD FORM USED IN REAL LIFE SITUATIONS?</p> <p>HOW ARE THE COMPUTATIONS OF +,- ,X,/ USED IN EVERDAY ACTIVITIES?</p> <p>WHEN ARE THE COMMUTATIVE, ASSOCIATIVE, AND IDENTITY PROPERTIES OF + AND X USED?</p> <p>HOW CAN WE USE THE COMMUTATIVE, ASSOCIATIVE AND IDENTITY PROPERTIES</p>	<p>THE PROCESSES INVOLVED ADDING SUBTRACTING, MULTIPLYING, DIVIDING AND ROUNDING WHOLE NUMBERS</p> <p>STUDENTS WILL BE ABLE TO ADD, SUBTRACT, MULTIPLY, DIVIDE, AND ROUND WHOLE NUMBERS TO THE TRILLIONS.</p> <p>TO READ AND WRITE WHOLE NUMBERS TO THE TRILLIONS IN STANDARD, EXPANDED, AND WORD FORM</p> <p>TO DEFINE AND IDENTIFY THE COMMUTATIVE, ASSOCIATIVE, IDENTITY, AND INVERSE PROPERTIES OF + AND X.</p> <p>TO DEFINE AND IDENTIFY THE DISTRIBUTIVE</p>	<p>PRE-COURSE SKILLS ASSESSMENT</p> <p>JOURNALS TO DEFINE PROPERTIES AND PROCESSES</p> <p>QUIZZES</p> <p>ASSIGNMENTS</p> <p>UNIT TEST</p>		

			TO + AND X?	PROPERTY OF X OVER +. HOW TO DEFINE AND IDENTIFY THE ZERO PROPERTY OF MULTIPLICATION.			
SEPTEMBER		<p>USING STATISTICS TO ANALYZE DATA</p> <p>ORGANIZING AND DISPLAYING DATA</p> <p>MAKING, USING, READING, AND UNDERSTANDING, FREQUENCY TABLES, LINE PLOTS, SPREADSHEETS, BAR GRAPHS, LINE GRAPHS, AND CIRCLE GRAPHS.</p> <p>USING THE RANGE, MEAN, MEDIAN, AND MODE TO COMPARE DATA.</p>	<p>HOW ARE STATISTICS USED IN SPORTS AND BUSINESSES?</p> <p>WHY IS IT NECESSARY TO BE ABLE TO READ AND INTERPRET GRAPHS?</p> <p>WHEN ARE GRAPHS USED TO DISPLAY DATA?</p> <p>WHAT DETERMINES THE TYPE OF GRAPH USED TO DISPLAY DATA?</p>	<p>STUDENTS WILL KNOW A VARIETY OF METHODS THAT CAN BE USED TO ORGANIZE DATA.</p> <p>STUDENTS WILL UNDERSTAND HOW TO USE THE MEAN, MEDIAN, MODE, AND RANGE TO COMPARE DATA.</p> <p>STUDENTS WILL KNOW THE DEFINITIONS OF MEAN, MEDIAN, MODE, RANGE, LINE PLOT, BAR GRAPH, CIRCLE GRAPH, LINE GRAPH, CELL AND FORMULA. STUDENTS WILL USE MEAN, MEDIAN, MODE AND RANGE TO ANALYZE DATA.</p> <p>STUDENTS WILL KNOW THAT FREQUENCY CHARTS, TABLES, BAR GRAPHS, LINE GRAPHS, AND</p>	<p>A PROJECT THAT REQUIRES STUDENTS TO COLLECT, ORGANIZE, GRAPH, AND COMPARE DATA.</p> <p>QUIZZES AND A TEST THAT ASSESS STUDENTS' KNOWLEDGE OF MATH TERMS AND USE OF TABLES, GRAPHS, MEAN, MEDIAN, MODE, AND RANGE.</p>		

CIRCLE GRAPHS CAN BE USED TO DISPLAY AND COMPARE DATA.

HOW TO COLLECT, DISPLAY, ORGANIZE, ANALYZE AND UPDATE DATA.

HOW TO COLLECT A SAMPLING OF DATA FROM A GIVEN POPULATION AND DETERMINE THE BEST METHOD/FORMAT FOR ORGANIZING GIVEN DATA.

STUDENTS WILL MAKE PREDICTIONS BASED ON DATA COLLECTED OR DATA SHOWN IN TABLES OR GRAPHS.

STUDENTS WILL BE ABLE TO SOLVE REAL WORLD PROBLEMS BY MAKING OR USING SPREADSHEETS, TABLES, BAR GRAPHS, CIRCLE GRAPHS, LINE GRAPHS TO ORGANIZE

				<p>INFORMATION AND COMPARE DATA.</p> <p>STUDENTS WILL DETERMINE AND JUSTIFY THE MOST APPROPRIATE GRAPH TO DISPLAY A GIVEN SET OF DATA (PICTORGRAPH, BAR GRAPH, LINE GRAPH, HISTOGRAM, OR CIRCLE GRAPH</p> <p>HOW TO CONSTRUCT A VENN DIAGRAM TO SORT DATA.</p>			
SEPTEMBER-OCTOBER		<p>PATTERNS AND ALGEBRAIC VARIABLES, EXPRESSIONS, AND INEQUALITIES</p> <p>CREATE AND CONTINUE PATTERNS.</p> <p>WRITE RULES FOR NUMBER PATTERNS.</p> <p>ORDER OF</p>	<p>WHAT IS THE ORDER OF OPERATIONS FOR MATH AND WHY IS IT IMPORTANT?</p> <p>HOW DO PATTERNS HELP YOU PREDICT OUTCOMES?</p> <p>HOW CAN PATTERNS BE USED IN THE AREAS OF ARTS AND ARCHITECTURE?</p> <p>HOW DO VARIABLE</p>	<p>HOW TO IDENTIFY PATTERNS AND WRITE RULES FOR NUMBER PATTERNS.</p> <p>STUDENTS WILL BE ABLE TO CONTINUE PATTERNS AND WRITE RULES FOR NUMBER PATTERNS. STUDENTS WILL UNDERSTAND HOW PATTERNS AND NUMBER PATTERNS CAN BE USED IN REAL WORLD SITUATIONS.</p> <p>THE ORDER OF</p>			

		<p>OPERATIONS.</p> <p>WRITE AND SOLVE VARIABLE EXPRESSIONS AND EQUATIONS.</p> <p>EVALUATE EXPRESSIONS USING THE ORDER OF OPERATIONS.</p>	<p>EXPRESSIONS AND EQUATIONS LET YOU EXPRESS AN UNKNOWN?</p> <p>HOW ARE VARIABLE EQUATIONS BALANCED?</p>	<p>OPERATIONS.</p> <p>STUDENTS WILL BE ABLE TO WRITE THE ORDER OF OPERATIONS AND USE IT TO SOLVE MULTI STEP PROBLEMS. STUDENTS WILL BE ABLE TO MODEL, WRITE AND SOLVE VARIABLE EXPRESSIONS AND EQUATIONS. STUDENTS WILL BE ABLE TO IDENTIFY ALGEBRAIC PROPERTIES IN EXAMPLES AND WRITE THE RULE FOR THE PROPERTIES.</p> <p>STUDENTS WILL UNDERSTAND VARIABLE EXPRESSIONS AND EQUATIONS AND HOW EACH CAN BE MODELED, WRITTEN AND USED TO SOLVE PROBLEMS.</p> <p>USE SUBSTITUTION TO EVALUATE ALGEBRAIC EXPRESSIONS.</p> <p>TRANSLATE TWO-</p>			
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STEP VERBAL
EXPRESSION INTO
ALGEBRIC
EXPRESSIONS.


USE SUBSTITUTION
TO EVALUATE
ALGEBRAIC
EXPRESSIONS
INCLUDING
EXPRESSIONS
HAVING EXPONENTS
OF ONE, TWO, OR
THREE.

HOW TO EVALUATE
EXPRESSIONS
HAVING EXPONENTS
OF ONE, TWO, OR
THREE.

SOLVE TWO-STEP
EQUATIONS USING
INVERSE
OPERATIONS
INVOLVING WHOLE
NUMBERS.

CREATE ALGEBRAIC
PATTERNS USING
CHARTS, TABLES,
GRAPHS,
EQUATIONS AND
EXPRESSIONS.

EVALUATE
FORMULAS FOR
GIVEN INPUT

				VALUES (CIRCUMFERENCE, AREA AND VOLUME).			
November - December		<p>NUMBER OPERATIONS AND NUMERICAL EXPRESSIONS</p> <p>DECIMALS</p> <p>DECIMAL EQUIVALENTS</p> <p>READING AND WRITING DECIMALS</p> <p>COMPARING AND ORDERING DECIMALS</p> <p>ADD, SUBTRACT, MULTIPLY AND DIVIDE DECIMALS</p> <p>ROUNDING DECIMALS</p> <p>ESTIMATING SUMS, DIFFERENCES, PRODUCTS, AND QUOTIENTS</p> <p>EXPONENTS AND EXPONENTIAL FORM</p> <p>DISTRIBUTIVE PROPERTY</p>	<p>HOW ARE THE ADDITION AND SUBTRACTION OF DECIMALS USED IN OUR EVERYDAY ACTIVITIES INVOLVING MONEY?</p> <p>WHEN IS ROUNDING NUMBERS APPROPRIATE AND USEFUL?</p> <p>HOW CAN ESTIMATING SUMS, DIFFERENCES, PRODUCTS AND QUOTIENTS BE HELPFUL?</p> <p>HOW CAN MULTIPLYING DECIMALS BE A VALUABLE TOOL FOR PLANNING BUDGETS/SPENDING?</p> <p>HOW CAN DIVIDING DECIMALS BE USED IN COMPARISON SHOPPING/UNIT PRICING?</p> <p>HOW ARE DECIMALS USED IN THE METRIC SYSTEM?</p> <p>WHY AND WHERE</p>	<p>THE RULES FOR ADDING, SUBTRACTING, MULTIPLYING AND DIVIDING DECIMALS.</p> <p>HOW TO READ AND WRITE, ORDER, COMPARE, AND ROUND WHOLE NUMBERS AND DECIMALS.</p> <p>READ AND WRITE DECIMALS IN WORD, EXPANDED AND STANDARD FORM.</p> <p>COMPARE AND ORDER DECIMALS USING MODELS, NUMBER LINES, AND PLACE VALUES.</p> <p>CORRECTLY SOLVE ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION OF DECIMALS</p> <p>UNDERSTAND THE DIFFERENCE BETWEEN ESTIMATING AND ROUNDING AN</p>	<p>FILL IN A BLANK PLACE VALUE CHART FROM THE BILLIONS TO THE HUNDRED-THOUSANDTH.</p> <p>SIMPLISTIC SPENDING ACTIVITY TO ASSESS USING DECIMALS TO SOLVE REAL LIFE PROBLEMS.</p> <p>QUIZZES</p> <p>UNIT TEST</p> <p>JOURNALS</p> <p>CLASS ASSIGNMENTS/</p> <p>HOMEWORK</p> <p>BULK BUYING ACTIVITY / FINDING UNIT PRICES (DIVISION OF DECIMALS)</p> <p>GROCERY EXPENSE AND/OR WALK -A-THON ACTIVITY (MULTIPLYING DECIMALS)</p>		

NUMBERS WRITTEN IN
EXPONENTIAL FORM?

ANSWER.

STUDENTS WILL
KNOW HOW TO USE
ROUNDING TO
ESTIMATE
PRODUCTS AND
QUOTIENTS.
STUDENTS WILL
KNOW THE TERMS
FACTORS, BASE,
EXPONENT, AND
POWER. STUDENTS
WILL KNOW HOW TO
SIMPLIFY POWERS
AND WRITE
EXPONENTS.
STUDENTS WILL
LEARN THE
DEFINITION OF THE
DISTRIBUTIVE
PROPERTY.

ROUND WHOLE NUMBERS
AND DECIMALS AS WELL AS
ESTIMATE SUMS,
DIFFERENCES, PRODUCTS
AND QUOTIENTS USING
FRONT END ESTIMATION
AND ROUNDING EACH
FACTOR TO THE NEAREST
WHOLE NUMBER.


**How to use the
order of
operations to
evaluate
expressions.**

HOW TO REPRESENT MULTIPLICATION IN EXPONENTIAL FORM.

HOW TO REPRESENT EXPONENTIAL FORM AS REPEATED MULTIPLICATION.

DEFINE AND IDENTIFY THE TERMS BASE, EXPONENT, POWER, AND FACTOR. STUDENTS WILL BE ABLE TO EXPRESS NUMBERS USING EXPONENTS, SIMPLIFY POWERS, AND USE THE DISTRIBUTIVE PROPERTY TO SIMPLIFY EXPRESSIONS AND MULTIPLY MENTALLY

STUDENTS WILL BE ABLE TO CORRECTLY IDENTIFY PLACE VALUES FROM BILLIONS TO HUNDRED-THOUSANDTHS.

DECEMBER		<p>NUMBER OPERATIONS</p> <p>INVESTIGATING FRACTIONS</p> <p>DIVISIBILITY RULES</p> <p>PRIME AND COMPOSITE NUMBERS</p> <p>FRACTIONS, EQUIVALENT FRACTIONS, MIXED NUMBERS, IMPROPER FRACTIONS, SIMPLIFYING FRACTIONS, COMPARING AND ORDERING FRACTIONS, FRACTIONS AS DECIMALS AND DECIMALS AS FRACTIONS</p> <p>LEAST COMMON MULTIPLE</p>	<p>WHAT ARE THE DIVISIBILITY RULES FOR 1, 2, 3, 5, 9, AND 10?</p> <p>HOW ARE THE DIVISIBILITY RULES USED?</p> <p>HOW ARE GCF AND LCM USED WITH FRACTIONS?</p> <p>HOW AND WHEN ARE EQUIVALENT FRACTIONS USED?</p> <p>HOW ARE FRACTIONS USED IN COOKING AND CONSTRUCTION?</p> <p>HOW ARE FRACTIONS WRITTEN AS DECIMALS AND DECIMALS AS FRACTIONS?</p>	<p>THE DIVISIBILITY RULES FOR 1, 2, 3, 5, 9, AND 10.</p> <p>THE TERMS FACTOR, PRIME AND COMPOSITE NUMBERS.</p> <p>HOW TO IDENTIFY, MODEL, ORDER, COMPARE, SIMPLIFY AND FIND EQUIVALENT FRACTIONS, IMPROPER FRACTIONS, AND MIXED NUMBERS.</p> <p>THE TERMS MULTIPLES, LEAST COMMON MULTIPLE, LEAST COMMON DENOMINATOR, TERMINATING AND REPEATING DECIMALS.</p> <p>HOW TO IDENTIFY WORKING BACKWARD AS A PROBLEM SOLVING</p>	<p>QUIZZES</p> <p>TESTS</p> <p>JOURNALS</p> <p>CLASS ASSIGNMENTS/</p> <p>HOMEWORK</p> <p>MANIPULATIVES</p> <p>(FRACTION CIRCLES) TO MODEL, ROUND, SIMPLIFY AND MAKE EQUIVALENT FRACTIONS.</p>		

STRATEGY.


STUDENTS WILL BE ABLE TO LOOK AT A NUMBER AND IDENTIFY WHAT NUMBERS IT IS DIVISIBLE BY.

STUDENTS WILL BE ABLE TO IDENTIFY PRIME AND COMPOSITE NUMBERS.

STUDENTS WILL BE ABLE TO FIND THE GREATEST COMMON FACTOR AND USE IT TO MAKE A FACTOR TREE TO FIND THE PRIME FACTORIZATION OF A NUMBER.

STUDENTS WILL BE ABLE TO IDENTIFY, MODEL, ORDER, COMPARE, SIMPLIFY AND FIND EQUIVALENT FRACTIONS, IMPROPER FRACTIONS, AND MIXED NUMBERS.

FIND MULTIPLES, LEAST COMMON

				<p>MULTIPLES AND USE LEAST COMMON MULTIPLES TO FIND THE LEAST COMMON DENOMINATOR.</p> <p>WRITE FRACTIONS AND MIXED NUMBERS AS TERMINATING OR REPEATING DECIMAL.</p> <p>CHANGE DECIMALS TO FRACTIONS OR MIXED NUMBERS.</p> <p>USE THE PROCESS OF WORKING BACKWARD TO PROBLEM SOLVE.</p>			
JANUARY - FEBRUARY		<p>USING FRACTIONS</p> <p>ESTIMATING SUMS AND DIFFERENCES</p> <p>ADDITION AND SUBTRACTION WITH LIKE AND UNLIKE DENOMINATORS</p> <p>ADDING AND SUBTRACTING MIXED NUMBERS WITH UNLIKE DENOMINATORS</p>	<p>HOW ARE ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION OF FRACTIONS USED IN COOKING AND MEASUREMENT?</p> <p>WHY IS IT NECESSARY TO BE ABLE TO CONVERT CUSTOMARY MEASURES TO EQUIVALENT MEASURES?</p> <p>HOW IS REGROUPING IN THE SUBTRACTION OF</p>	<p>THE STEPS TO ADD, SUBTRACT, MULTIPLY, AND DIVIDE FRACTIONS AND MIXED NUMBERS WITH LIKE AND UNLIKE DENOMINATORS.</p> <p>HOW TO MAKE EQUIVALENT FRACTIONS BY FINDING A COMMON DENOMINATOR TO ADD AND SUBTRACT FRACTIONS AND</p>	<p>JOURNALS</p> <p>CLASS ASSIGNMENTS /HOMEWORK</p> <p>QUIZZES</p> <p>UNIT TEST</p> <p>COOKING PROJECT (MULTIPLYING FRACTIONS)</p>		

		<p>MULTIPLYING AND DIVIDING FRACTIONS AND MIXED NUMBERS WITH UNLIKE DENOMINATORS</p> <p>CHANGING UNITS OF MEASUREMENT IN THE CUSTOMARY AND METRIC SYSTEM OF CAPACITY TO EQUIVALENTS</p>	<p>MIXED NUMBERS SIMILAR TO BORROWING WHEN SUBTRACTING WHOLE NUMBERS?</p> <p>HOW DO WE USE IMPROPER FRACTIONS TO DIVIDE FRACTIONS?</p> <p>WHAT IS A NECESSARY STEP TO ADD AND SUBTRACT FRACTIONS?</p>	<p>MIXED NUMBERS WITH UNLIKE DENOMINATORS.</p> <p>HOW TO PUT ALL THEIR ANSWERS IN SIMPLEST FORM.</p> <p>TO CHANGE ALL MIXED NUMBERS TO IMPROPER FRACTIONS BEFORE MULTIPLYING AND DIVIDING MIXED NUMBERS.</p> <p>KNOW WHETHER TO MULTIPLY OR DIVIDE TO CONVERT CUSTOMARY MEASURES TO EQUIVALENTS.</p> <p>HOW TO SIMPLIFY BEFORE MULTIPLYING IF THE NUMERATOR OF ONE FRACTION AND THE DENOMINATOR OF ANOTHER FRACTION HAVE A COMMON FACTOR.</p> <p>TO USE THE RECIPROCAL TO DIVIDE WITH FRACTIONS AND MIXED NUMBERS.</p> <p>VOCABULARY:</p>			
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				<p>RECIPROCAL</p> <p>CHANGE CUSTOMARY MEASURES TO EQUIVALENTS TO SOLVE MEASUREMENT PROBLEMS. (FOLLOWING A RECIPE , SEWING, OR CONSTRUCTION)</p> <p>REPRESENT FRACTIONS AS REPEATING DECIMALS.</p> <p>CONVERT BETWEEN DIFFERENT FORMS OF RATIONAL NUMBERS.</p>			
MARCH		<p>EXPLORING PROBABILITY</p> <p>FAIR AND UNFAIR GAMES- EXPERIMENTAL PROBABILITY AND POSSIBLE OUTCOMES</p> <p>SIMULATIONS AND RANDOM NUMBERS</p> <p>THEORETICAL PROBABILITY</p> <p>PROBABILITY PREDICTIONS FROM DATA</p>	<p>WHAT IS PROBABILITY?</p> <p>WHAT ARE EVENTS?</p> <p>HOW IS THE PROBABILITY OF AN INDEPENDENT EVENT DETERMINED?</p>	<p>HOW TO FIND THE EXPERIMENTAL PROBABILITY AND POSSIBLE OUTCOMES.</p> <p>HOW TO USE RANDOM NUMBERS TO SIMULATE PROBABILITY PROBLEMS AND FIND EXPERIMENTAL PROBABILITY.</p> <p>HOW TO DEFINE TYPES OF EVENTS.</p> <p>HOW TO FIND THE</p>	<p>JOURNALS</p> <p>VOCABULARY CARDS</p> <p>QUIZZES</p> <p>UNIT TEST</p> <p>ACTIVITIES USING COINS, NUMBER CUBES AND SPINNERS TO DETERMINE EXPERIMENTAL AND THEORETICAL PROBABILITY.</p>		

THEORETICAL PROBABILITY OF AN EVENT AND HOW TO USE THEORETICAL PROBABILITY TO PREDICT THE EXPECTED OUTCOMES OF THE EVENT.

WHEN ALL OUTCOMES ARE EQUALLY LIKELY, THE THEORETICAL PROBABILITY OF AN EVENT IS A RATIO OF THE NUMBER OF FAVORABLE OUTCOMES TO THE NUMBER OF POSSIBLE OUTCOMES.

WHEN THE PROBABILITY OF AN EVENT HAPPENING IS 1 THEN IT IS CERTAIN TO HAPPEN , WHEN THE PROBABILITY IS 0 IT IS IMPOSSIBLE TO HAPPEN AND IF THE PROBABILITY IS BETWEEN 0 AND 1 THEN IT IS POSSIBLE TO HAPPEN.

TO DETERMINE

WHETHER GAMES AND CONTESTS ARE FAIR BY COLLECTING DATA AND WRITING A RATIO OF THE EXPERIMENTAL PROBABILITY OF WINNING.


TO DETERMINE IF A GAME IS FAIR BY FINDING THE POSSIBLE OUTCOMES AND COMPARE IT TO THE GAME RULES.

DETERMINE IF THE POSSIBLE EVENTS ARE LIKELY OR UNLIKELY TO HAPPEN WHEN THE EVENT FALLS BETWEEN 0 AND 1.

USE RANDOM NUMBER TABLES TO FIND THE PROBABILITY (COIN TOSSES, ROLL NUMBER CUBES AND SPINNING SPINNERS.)

USE TREE DIAGRAMS AND THE FUNDAMENTAL COUNTING PRINCIPLE TO DETERMINE THE NUMBER OF POSSIBLE OUTCOMES FOR A COMPOUND EVENT.

DETERMINE THE PROBABILITY OF DEPENDENT AND

				<p>INDEPENDENT EVENTS.</p> <p>JUSTIFY PREDICTIONS MADE FROM DATA.</p> <p>LIST POSSIBLE OUTCOMES FOR COMPOUND EVENTS.</p> <p>VOCABULARY: FAIR, EXPERIMENTAL PROBABILITY, EQUALLY LIKELY, POSSIBLE OUTCOMES, TRIAL, RANDOM NUMBERS, AND THEORETICAL PROBABILITY.</p>			
APRIL - MAY		<p>RATIOS, PROPORTIONS, AND PERCENTS</p> <p>EXPLORING RATIOS</p> <p>EQUAL RATIOS AND UNIT RATES</p> <p>SOLVING PROPORTIONS</p> <p>SCALE DRAWINGS</p> <p>PERCENTS, FRACTIONS AND DECIMALS</p> <p>FINDING A PERCENT OF A NUMBER</p> <p>PERCENT, RATE,</p>	<p>WHAT ARE RATIO, UNITE RATE, AND PROPORTION?</p> <p>WHAT IS A SCALE DRAWING?</p> <p>HOW ARE SCALE DRAWINGS USED TO CONSTRUCT MATERIALS SUCH AS MAPS AND ARCHITECTURE FLOOR PLANS?</p> <p>HOW ARE RATIOS AND PROPORTIONS SIMILAR TO FRACTIONS?</p> <p>HOW DO YOU FIND AND USE THE UNIT RATE OR UNIT PRICE IN REAL</p>	<p>UNDERSTAND THE MEANING OF RATIOS AND HOW TO USE AND WRITE THEM TO COMPARE NUMBERS TO OTHER NUMBERS.</p> <p>HOW TO WRITE RATIOS EQUAL RATIOS AND RATIOS IN SIMPLEST FORM.</p> <p>LEARN HOW TO WRITE AND FIND RATE AND UNIT RATE.</p> <p>HOW TO IDENTIFY AND SOLVE</p>	<p>VOCABULARY QUIZ</p> <p>QUIZZES</p> <p>UNIT TEST</p> <p>JOURNALS DESCRIBING HOW TO FIND THE UNIT RATE, SALES TAX, INTEREST, DISCOUNTS, ETC.</p> <p>ACTIVITIES THAT INCLUDE REAL LIFE APPLICATIONS (SCALE DRAWING OF A ROOM, DISCOUNTS, SALES TAX, INTEREST, ETC.)</p>		

		<p>BASE</p>	<p>WORLD SITUATIONS?</p> <p>HOW CAN THE PERCENT OF A NUMBER BE USED TO ESTIMATE AND COMPUTE TAX, INTEREST, DISCOUNTS, TIPS, ETC...?</p>	<p>PROPARTIONS.</p> <p>KNOW HOW TO ENLARGE OR REDUCE A DESIGN BY MAKING A SCALE DRAWING.</p> <p>A PROPORTION IS USED TO FIND THE ACTUAL SIZE OF AN OBJECT.</p> <p>THE STEPS TO WRITE FRACTIONS AND DECIMALS AS PERCENTS AND VISE VERSA.</p> <p>HOW TO FIND THE PERCENT OF A NUMBER.</p> <p>WRITE RATIOS AND RATES TO MAKE A COMPARISON BETWEEN NUMBERS.</p> <p>SOLVE PROBLEMS USING RATIOS, PROPORTIONS, RATES AND UNIT RATES.</p> <p>FIND EQUAL RATIOS AND PUT RATIOS INTO SIMPLEST FORM USING THEIR KNOWLEGE ABOUT FRACTIONS.</p>			
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SOLVE
PROPORTIONS
USING CROSS
PRODUCTS.

MAKE A SCALE
DRAWING TO
ENLARGE A DESIGN
AND TO REDUCE A
DESIGN.


USE A SCALE TO
DETERMINE THE ACTUAL
SIZE OF AN OBJECT OR TO
DETERMINE THE DISTANCE
BETWEEN TWO OR MORE
POINTS.

WRITE FRACTIONS
AND DECIMALS AS
PERCENTS AND
VICE VERSA.

FIGURE THE
PERCENT OF A
NUMBER AND USE IT
TO BE ABLE TO
COMPUTE SALES
TAX, INTEREST, AND
DISCOUNTS.

EXPRESS
EQUIVALENT RATIOS
AS A PROPORTION.

READ, WRITE AND
IDENTIFY PERCENTS
OF A WHOLE
NUMBER (0% -

				<p>100%).</p> <p>DISTINGUISH THE DIFFERENCE BETWEEN RATE AND RATIO.</p> <p>ESTIMATE THE PERCENT OF A QUANTITY AND JUSTIFY THE REASONABLENESS OF THE ESTIMATE.</p> <p>VOCABULARY: RATIO, EQUAL RATIOS, RATE, UNIT RATE, PROPORTION, CROSS PRODUCTS, SCALE, AND PERCENT.</p>			
NOVEMBER - DECEMBER		<p>RATIONAL NUMBERS</p> <p>MULTIPLE REPRESENTATION OF RATIONAL NUMBERS</p> <p>ABSOLUTE VALUES OF POSITIVE AND NEGATIVE INTEGERS</p> <p>LOCATING AND ORDERING POSITIVE AND NEGATIVE INTEGERS</p>	<p>WHAT ARE RATIONAL NUMBERS?</p> <p>WHERE AND WHY ARE NEGATIVE NUMBERS USED?</p> <p>HOW ARE RATIONAL NUMBERS REPRESENTED?</p>	<p>DEFINE AND DETERMINE THE ABSOLUTE VALUE OF RATIONAL NUMBERS</p> <p>LOCATE AND ORDER RATIONAL NUMBERS (BOTH POSITIVE AND NEGATIVE) USING A NUMBER LINE</p> <p>HOW TO REPRESENT RATIONAL NUMBERS</p> <p>DEFINE AND DETERMINE THE ABSOLUTE VALUE OF</p>	ACTIVITY TO APPLIES LOCATING AND ORDERING RATIONAL NUMBERS		

				RATIONAL NUMBERS				
FEBRUARY - MARCH		<p>TOOLS OF GEOMETRY</p> <p>PROPERTIES OF GEOMETRIC SHAPES</p> <p>POINTS, LINES, AND PLANES</p> <p>EXPLORING ANGLES</p> <p>COMPLEMENTARY AND SUPPLEMENTARY ANGLES</p> <p>TRIANGLES, POLYGONS, AND QUADRILATERALS</p> <p>CONGRUENT AND SIMILAR FIGURES</p> <p>LINE SYMMETRY</p> <p>CIRCLE- DIAMETER, RADIUS, AREA, CIRCUMFERENCE, CENTRAL ANGLES</p>	<p>HOW IS GEOMETRY USED IN THE FIELDS OF ART AND ARCHITECTURE?</p> <p>WHAT OTHER CAREERS USE GEOMETRY?</p> <p>WHAT IS A POLYGON?</p> <p>HOW ARE ANGLES CLASSIFIED?</p> <p>WHAT IS CONGRUENT?</p> <p>WHAT IS LINE SYMMETRY AND HOW IS IT IDENTIFIED?</p> <p>HOW ARE DIAMETER AND RADIUS USED TO FIND THE CIRCUMFERENCE OF A CIRCLE?</p>	<p>HOW TO IDENTIFY ACUTE, RIGHT, OBTUSE STRAIGHT ANGLES.</p> <p>CORRECTLY IDENTIFY A GEOMETRIC FIGURE AS A TRIANGLE, POLYGON, QUADRILATERAL, OR CIRCLE.</p> <p>NAME FIGURES AND ANGLES AND MEASURE ANGLES.</p> <p>HOW TO IDENTIFY CONGRUENT AND SIMILAR FIGURES.</p> <p>HOW TO CALCULATE THE AREA OF TRIANGLES AND QUADRILATERALS.</p> <p>HOW TO DETERMINE IF A FIGURE HAS LINES OF SYMMETRY.</p> <p>IDENTIFY THE PARTS OF A CIRCLE; DIAMETER, RADIUS,</p>	<p>VOCABULARY CARDS</p> <p>JOURNALS (IDENTIFYING THE DIFFERENCES IN TYPES OF ANGLES)</p> <p>QUIZZES</p> <p>UNIT TEST</p> <p>ACTIVITY TO MEASURE ANGLE</p> <p>SIZE AND IF ANGLES ARE COMPLEMENTARY OR SUPPLEMENTARY</p>			



CENTRAL ANGLE,
CHORDS.

KNOW THE
FORMULA FOR
CIRCUMFERENCE
OF A CIRCLE.

HOW TO
CALCULATE THE
LENGTH AND
CORRESPONDING
SIDES OF SIMILAR
TRIANGLES USING
PROPORTIONAL
REASONING.

DETERMINE THE
AREA AND
CIRCUMFERENCE OF
A CIRCLE USING THE
APPROPRIATE
FORMULA

CLASSIFY ALL
ANGLES.

CLASSIFY ALL FIGURES AS A
TRIANGLE, POLYGON,
QUADRILATERAL, OR
CIRCLE.

MEASURE ANGLES
USING A
PROTRACTOR.

FIND THE RADIUS OF
A CIRCLE USING THE
KNOWN DIAMETER

				<p>AND VISE VERSA.</p> <p>FIND THE CIRCUMFERENCE OF A CIRCLE USING THE KNOWN DIAMETER OR RADIUS.</p> <p>DETERMINE IF FIGURES ARE SIMILAR OR CONGRUENT. ALSO IF A FIGURE HAS LINE SYMMETRY.</p> <p>USE A VARIETY OF STRATEGIES TO FIND THE AREA OF REGULAR AND IRREGULAR POLYGONS.</p> <p>VOCABULARY: POINT, LINE, PLANE SEGMENT, RAY, PARALLEL LINES VERTICAL, HORIZONTAL, ANGLE, DEGREE, VERTEX, AND SIDES. OBTUSE, ACUTE, RIGHT, STRAIGHT, COMPLEMENTARY, SUPPLEMENTARY ANGLES. PERPENDICULAR, CONGRUENT ANGLES, RADIUS, CHORD, AND DIAMETER.</p>			
JUNE		<p>GEOMETRY AND MEASUREMENT</p> <p>AREA AND PERIMETER OF RECTANGLES, TRIANGLES,</p>	<p>WHAT IS PERIMETER?</p> <p>WHAT IS AREA?</p> <p>HOW CAN PERIMETER BE USED IN</p>	<p>THE FORMULAS TO FIND THE PERIMETER OF RECTANGLES AND TRIANGLES.</p> <p>THE FORMULAS FOR THE AREA OF CIRCLES, TRIANGLES, AND</p>	VOCABULARY CARDS FOR NAMES OF THREE-DIMENSIONAL SHAPES AND THEIR PARTS.		

		<p>SQUARES, RHOMBI, TRAPEZOID</p> <p>AREA OF CIRCLES</p> <p>THREE - DIMENSIONAL FIGURES</p> <p>VOLUME OF RECTANGULAR PRISMS</p> <p>POINTS IN A QUADRANT</p> <p>BASIC POLYGONS ON A COORDINATE PLAN</p>	<p>CONSTRUCTION?</p> <p>HOW CAN AREA BE USED IN CAREERS SUCH AS FARMING AND FLOOR INSTALLATION?</p> <p>HOW IS THE AREA OF A CIRCLE FOUND?</p> <p>HOW DO YOU FIND THE VOLUME OF A RECTANGULAR PRISM?</p> <p>WHAT MAKES A FIGURE THREE-DIMENSIONAL?</p> <p>WHAT DOES CAPACITY TELL US?</p> <p>HOW IS CAPACITY USED?</p> <p>WHAT IS A COORDINATE PLANE?</p>	<p>RECTANGLES.</p> <p>THE NAMES AND PARTS OF THE FOLLOWING THREE DIMENSIONAL FIGURES: PRISM, CYLINDER, CONE, SPHERE, CUBE, AND PYRAMID.</p> <p>THE FORMULA TO FIND THE VOLUME OF A RECTANGULAR PRISM.</p> <p>HOW TO MEASURE THE CAPACITY OF A RECTANGULAR PRISM.</p> <p>HOW TO DETERMINE PERSONAL REFERENCES FOR CAPACITY.</p> <p>HOW TO ESTIMATE THE VOLUME, AREA, AND CIRCUMFERENCE OF FIGURES.</p> <p>WHAT TOOL AND TECHNIQUE TO USE TO MEASURE CAPACITY WITH A LEVEL OF PRECISION.</p> <p>HOW TO IDENTIFY AND PLOT POINTS IN ALL FOUR QUADRANTS.</p> <p>HOW TO CALCULATE THE AREA OF BASIC POLYGONS DRAWN ON A COORDINATE PLAN (RECTANGLES AND SHAPES COMPOSED OF RECTANGLES)</p> <p>USE THE CORRECT FORMULA TO FIND THE PERIMETER OF RECTANGLES AND TRIANGLES.</p>	<p>QUIZZES</p> <p>UNIT TEST</p> <p>JOURNALS (DESCRIBE THE DIFFERENCES BETWEEN PERIMETER, AREA, AND CIRCUMFERENCE.)</p>		
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				<p>USE THE CORRECT FORMULA TO FIND THE AREA OF CIRCLES, TRIANGLES, AND RECTANGLES.</p> <p>USE THE CORRECT FORMULA TO FIND THE VOLUME OF A RECTANGULAR PRISM.</p> <p>CORRECTLY IDENTIFY THE NAMES AND PARTS OF PRISMS, CYLINDERS, CONES, SPHERES, CUBES, AND PYRAMIDS.</p> <p>DETERMINE THE VOLUME OF A RECTANGULAR PRISM BY COUNTING CUBES.</p> <p>IDENTIFY CUSTOMARY UNITS OF CAPACITY (CUPS, PINTS, QUART, GALLONS).</p> <p>IDENTIFY METRIC UNITS OF CAPACITY (LITER AND MILLILITER).</p>			
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