

MATHEMATICS

Second Edition Scope and Sequence

•Material included in ACSI Mathematics Series, 2nd Edition *California Standards

	K	1	2	3	4	5	6
I. PATTERNS							
A. Sorting							
Identifying attributes	.*	.*	.*				
Sorting objects by 2 or more attributes		.*	.*				
Sorting objects into groups	.*	.*	.*				
Identifying attributes that distinguish a set	.*	.*					
Identifying objects that do not belong in a set	.*	.*	.*				
Identifying and distinguishing sets by number or attribute	.*	.	.*				
Classifying geometric shapes by attribute	.*	.*	.*				
Organizing information using a Venn diagram		
B. Patterns							
Identifying patterns	.*	.*	.*	.	.	.	
Copying a given pattern	
Describing a pattern	.*	.*	.*				
Describing a pattern using math manipulatives	.*	.*	.*				
Identifying the next object in a pattern	.*	.*	.*	.	.	.	
Extending and designing patterns	.*	.*	.*		.	.	
Finding patterns in sequencing of counting	.	.	.*	.			
Writing the next number in sequence to 100		.*					
Identifying the number before, after, or between given numbers	.	.*	.				
Finding number patterns using a hundred chart	.	.	.				
Finding number patterns using a table			.			.	
Exploring and predicting number patterns			.				.

	K	1	2	3	4	5	6
Skip counting by 2s, 5s, and 10s	•	•*	•*	•			
Skip counting by 100s			•	•			
Designing patterns with 2s, 5s, and 10s		•	•				
Identifying number patterns as they relate to the Distributive Property							•
Identifying odd and even numbers			•*	•*	•		
Identifying even numbers as matched pairs			•	•			
Identifying prime and composite numbers					•	•*	•
Exploring square numbers					•	•	•
Exploring square roots							•
Distinguishing between terminating and repeating						•	•
C. Geometric Patterns							
Exploring patterns with slide symmetry (translation)	•	•	•				
Exploring patterns with spin or turn symmetry (rotation)	•	•	•				
Exploring patterns with mirror or flip symmetry (reflection)	•	•	•				
Identifying and extending patterns of slides, flips, and turns				•	•	•	
Performing transformations of two- and three-dimensional figures						•	•
Identifying and drawing congruent lines, angles, and figures						•	•
II. NUMBER THEORY							
A. Writing Numerals							
Reading and writing numbers to 31	•*						
Counting numbers to 100	•						
Reading and writing numbers to 100		•*	•*				
Reading and writing numbers through the thousands			•*				
Reading and writing numbers through the hundred thousands				•*	•		
Reading and writing numbers through the hundred millions					•*		
Reading and writing numbers through the hundred billions						•*	
Reading and writing numbers through the hundred trillions							•*
Writing Roman numerals					•	•	•
Identifying integers						•*	•*

	K	1	2	3	4	5	6
Identifying abundant, deficient, and perfect numbers							•
Exploring binary numbers							•
B. Rounding Numbers							
Rounding numbers to the nearest ten			•*	•*		•*	•
Rounding numbers to the nearest hundred				•*	•*	•*	•
Rounding numbers to the nearest thousand					•*	•*	•
Rounding numbers to the nearest ten thousand					•*	•*	•
Rounding numbers to the nearest hundred thousand					•*	•*	•
Rounding numbers to the nearest hundred million					•	•*	•
Rounding decimals to the nearest whole number				•*	•*	•*	•
Rounding decimals to the nearest tenth						•*	•
Rounding decimals to the nearest hundredth						•*	•
C. Ordinal Numbers							
Using ordinal names first through fifth	•						
Using ordinal names first through tenth	•	•	•	•	•		
Using ordinal names through twentieth			•	•	•		
Using ordinal names through hundredth				•	•		
Using a calendar to review ordinal numbers	•	•	•		•		
III. PLACE VALUE							
A. Number Identification							
Reading and writing numbers to the tens place	•*	•*	•*				
Reading and writing numbers to the hundreds place		•	•*				
Exploring the number 100	•	•*					
Modeling 2-digit numbers	•*						
Modeling 2- and 3-digit numbers		•*	•*				
Reading and writing numbers to the thousands place			•*				
Modeling 4-digit numbers			•*	•*	•*		
Exploring the number 1,000			•*				
Using expanded notation			•*	•*	•*	•*	•*
Reading and writing numbers to the hundred thousands place				•	•*		
Reading and writing numbers to the hundred millions place					•*		

	K	1	2	3	4	5	6
Reading and writing numbers to the hundred billions place						.*	
Reading and writing numbers to the hundred trillions place							.*
Reading and writing decimals to the tenths and hundredths place				.*	.*		
Reading and writing decimals to the thousandths place						.*	
Reading and writing decimals to the hundred-thousandths place							.*
B. Comparing Numbers							
Comparing number sets	.*	.*	.*				
Comparing numbers up to 100		.*	.*				
Comparing numbers up to 1,000			.*				
Comparing numbers to 10,000				.*	.		
Comparing numbers to hundred millions					.*		
Comparing numbers to hundred billions						.*	
Comparing numbers to hundred trillions							.*
Comparing decimals to the hundredths place				.*	.*		
Comparing decimals to the thousandths place						.*	
Comparing decimals to the ten-thousandths place							.*
Comparing integers						.	.*
Finding equal sets	.*	.*					
Identifying numbers before or after a number, or between two given numbers	.	.*	.*	.*	.*	.*	.*
Using a number line to find numbers greater than or less than	.	.			.*	.*	.*
Using a hundred chart to find numbers greater than or less than	.	.					
C. Ordering Numbers							
Ordering 1-digit numbers	.*	.*					
Ordering 2-digit numbers	.*	.*	.*				
Ordering 3-digit numbers		.*	.*				
Ordering 4-digit numbers			.*	.*	.*		
Ordering 5-digit numbers					.*		
Ordering 6-digit numbers						.*	
Ordering 13-digit numbers							.*
Ordering decimals to the hundredths place				.	.*		

	K	1	2	3	4	5	6
Ordering decimals to the thousandths place						.*	
Ordering decimals to the ten-thousandths place							.*
Ordering integers						.*	.
IV. STATISTICS							
A. Graph Reading and Analysis							
Reading and interpreting bar graphs	.	.*	.*	.*	.*	.*	.*
Reading and interpreting pictographs	.*	.*	.*	.*	.*	.*	
Reading and interpreting tables		.	.*	.*	.*	.*	.*
Reading and interpreting tally charts	.*	.*	.	.*	.	.	.
Reading and interpreting line graphs				.*	.*	.*	.*
Reading and interpreting histograms						.*	.*
Reading and interpreting circle graphs					.*	.*	.*
Reading and interpreting line plots						.	.*
Reading and interpreting stem-and-leaf plots							.
Identifying factors that make graphs misleading; correcting graphs							.*
B. Collecting and Recording Data							
Collecting data by conducting a survey				.	.*	.	.*
Collecting data by other methods					.*	.	.*
Recording information from an experiment	.*	.	.*	.*	.*	.*	.*
Recording information on a tally chart	.*	.*			.	.	.
C. Designing Graphs							
Designing bar graphs		.*	.*	.*	.*	.*	.
Designing pictographs			
Designing line graphs				.*	.*	.*	.*
Designing histograms						.*	.*
Designing circle graphs					.*	.*	.*
Selecting appropriate types of graphs for different data						.*	.*
D. Statistics							
Making line plots						.	.*

	K	1	2	3	4	5	6
Finding mean, median, and mode						.*	.*
Finding the range of given data						.	.*
V. ADDITION							
A. Addition Basics							
Adding numbers with sums to 4	.*	.*					
Adding numbers with sums to 6	.*	.*					
Adding numbers with sums to 8	.	.*					
Adding numbers with sums to 10	.	.*	.*				
Adding numbers with sums to 12		.*	.*				
Adding numbers with sums to 14		.*	.*				
Adding numbers with sums to 18		.*	.*	.*			
Using the “counting-on” strategy	.*	.*	.*	.			
Using a number line for counting on	.	.	.				
Using the “doubles” strategy			
Using the “doubles + 1” strategy			
Using the “making a 10” strategy			
Using an addition table			.				
Using the Grouping (Associative) Property of Addition				.*	.*	.*	.*
Using the Order (Commutative) Property of Addition	.	.	.*	.*	.*	.*	.*
Addition fact families for sums up to 10	.	.*	.*	.*			
Using the Zero Property of Addition			.	.*	.*	.*	.*
Adding 3 or more addends	.	.*	.*	.*	.*	.*	
Adding 2-digit numbers		.*	.*		.*		
Adding money amounts to ninety-nine cents	.	.	.*				
Adding 3-digit numbers			.*	.*	.*		
Adding 4-digit numbers				.*	.*		
Checking addition by using subtraction			.*	.			
Using addition facts to mentally add			.*	.*			
Estimating sums		.	.*	.*	.*	.*	.*

	K	1	2	3	4	5	6
B. Addition with Regrouping							
Learning to regroup 10 ones as one 10	.	.	.*				
Adding a 1-digit number to a 2-digit number		.*	.*	.*			
Adding 2-digit numbers, regrouping ones as tens		.	.*	.*			
Adding three 2-digit addends			.	.*			
Adding cents or whole dollar figures			.*				
Adding 3-digit numbers, regrouping ones as tens			.*	.*	.*		
Adding 3-digit numbers, regrouping tens as hundreds			.*	.*	.*		
Adding 3-digit numbers, regrouping ones and tens (2 regroupings)			.*	.*	.*		
Adding 4-digit numbers with regrouping				.*	.*		
Adding 5-digit numbers with regrouping					.*	.*	
Adding 6-digit numbers with regrouping							.*
Adding mixed dollar and cents amounts				.*	.*	.*	.*
C. Adding Fractions							
Adding fractions with common denominators				.*	.*	.	.
Determining the least common multiple						.	.
Determining the least common denominator						.	.
Adding fractions without common denominators					.	.*	.*
Adding mixed numbers					.	.*	.*
Adding mixed numbers with renaming						.	.
Estimating fraction and mixed-number sums						.	.
D. Adding Decimals							
Adding decimals through the hundredths place				.*	.*	.*	
Adding decimals through the thousandths place						.*	
Adding decimals through the ten-thousandths place							.*
Estimating decimal sums				.	.*	.	.
VI. SUBTRACTION							
A. Subtraction Basics							
Subtracting from numbers up to 6	.*	.*					
Subtracting from numbers up to 10	.	.*	.*				
Subtracting from numbers up to 12		.*	.*				

	K	1	2	3	4	5	6
Subtracting from numbers up to 14		•*	•*				
Using a number line to subtract	•	•	•				
Using ten-frames to subtract numbers up to 10	•						
Using ten-frames to subtract numbers up to 18		•					
Using the “counting-back” strategy to subtract	•	•	•	•			
Using the “doubles minus one” strategy			•				
Subtracting a number from itself, and subtracting zero	•*	•*	•*				
Subtracting 2-digit numbers		•	•*		•*		
Subtracting 2-digit numbers using tens mats		•					
Subtracting 3-digit numbers			•*		•*		
Subtracting money amounts to ninety-nine cents	•	•	•*				
Relating subtraction to addition by using fact families	•	•	•*	•*	•*		
Using subtraction to check addition			•*				
Using addition to check subtraction			•*	•*	•*		
B. Subtraction with Regrouping							
Practicing regrouping tens as ones	•	•	•*				
Subtracting a 1-digit number from a 2-digit number		•*	•*				
Subtracting 2-digit numbers, regrouping tens as needed		•	•*	•*	•*		
Subtracting from a number having a zero in the ones place			•*	•*			
Subtracting across zeroes				•*	•*	•	
Subtracting 3-digit numbers, regrouping tens as ones			•*	•*	•*		
Subtracting 3-digit numbers, regrouping hundreds as tens			•*	•*	•*		
Subtracting 3-digit numbers, regrouping hundreds and tens			•*	•*	•*		
Subtracting 4-digit numbers, more than one regrouping				•*	•*		
Subtracting 5-digit numbers, more than one regrouping					•*	•*	
Subtracting 6-digit numbers with regrouping							•*
Estimating differences			•*	•*	•*	•*	•
Subtracting money amounts			•*	•*	•*	•*	•*
C. Subtracting Fractions							
Subtracting fractions with common denominators				•*	•*	•*	•*
Determining the least common multiple						•	•

	K	1	2	3	4	5	6
Determining the least common denominator						.	.
Subtracting fractions without common denominators					.	.*	.*
Subtracting mixed numbers					.	.*	.*
Subtracting fractions from a whole number with renaming						.*	.*
Subtracting mixed numbers with renaming						.*	.*
Estimating differences in fractions and mixed numbers						.	.
D. Subtracting Decimals							
Subtracting decimals through the hundredths place				.*	.*	.*	
Subtracting decimals through the thousandths place						.*	
Subtracting decimals through the ten-thousandths place							.*
Estimating decimal differences					.*	.	.
VII. MULTIPLICATION							
A. Multiplication Basics							
Exploring multiplication by making groups of equal size		.	.*				
Exploring the relationship between multiplication and repeated addition		.	.*				
Relating repeated addition or skip counting to multiplication			.*	.	.		
Multiplying single-digit numbers by 2			.*	.*	.*		
Multiplying single-digit numbers by 3			.*	.*	.*		
Multiplying single-digit numbers by 4			.*	.*	.*		
Multiplying single-digit numbers by 5			.*	.*	.*		
Multiplying single-digit numbers by 6				.*	.*		
Multiplying single-digit numbers by 7				.*	.*		
Multiplying single-digit numbers by 8				.*	.*		
Multiplying single-digit numbers by 9				.*	.*		
Multiplying single-digit numbers by 10			.*	.*	.*		
Multiplying by 11					.*		
Multiplying by 12					.*		
Using a number line to find a product			.	.*			
Making arrays to model multiplication facts			.*	.*	.		
Using the Order (Commutative) Property of Multiplication			.*	.*	.*	.*	.*

	K	1	2	3	4	5	6
Using the Zero Property of Multiplication				•*	•*	•*	•*
Using the Multiplication Identity Property of One				•*	•*	•*	•*
Using the Grouping (Associative) Property of Multiplication					•*	•*	•*
Using the Distributive Property						•*	•*
Using a multiplication table to learn facts			•	•	•		
Relating multiplication and division facts			•*	•*	•		
Multiplying by tens					•*	•*	•*
Multiplying by hundreds				•	•	•*	•*
Multiplying by thousands					•	•*	•*
Multiplying by ten thousands							•*
Multiplying 2-digit numbers without regrouping				•	•*		
Multiplying 3-digit numbers without regrouping				•	•*		
Factoring; distinguishing between prime and composite numbers					•*	•*	•*
Determining the greatest common factor						•	•*
Exploring exponents					•	•*	•*
B. Multiplication with Regrouping							
Multiplying 2-digit numbers by single-digit numbers, regrouping ones				•*	•*		
Multiplying 2-digit numbers by single-digit numbers, regrouping ones and tens				•*	•*		
Estimating products				•*	•*	•	
Multiplying 3-digit numbers by single-digit numbers, regrouping ones				•*	•*		
Multiplying 3-digit numbers by single-digit numbers, regrouping ones and tens				•*	•*		
Multiplying 3-digit numbers by single-digit numbers, regrouping ones, tens, and hundreds				•*	•*	•*	
Multiplying 4-digit numbers by single-digit numbers, regrouping as needed					•*		
Multiplying 4-digit money amounts by a single-digit number					•*	•*	
Multiplying larger numbers by single-digit numbers						•*	•*
C. Multi-Digit Multiplication							
Estimating products of 2- and 3-digit factors					•	•	•
Estimating products of 3- and 4-digit factors					•	•	•

	K	1	2	3	4	5	6
Multiplying 2-digit factors by multiples of 10					.		
Multiplying two 2-digit factors					.*	.*	.*
Multiplying 3-digit numbers by 2-digit numbers					.*	.*	.*
Multiplying money amounts up to \$10.00 by 2-digit factors					.*	.*	.*
Multiplying 2-, 3-, and 4-digit numbers by 3-digit factors						.	.*
Using lattice multiplication						.	
D. Multiplying Fractions							
Using multiplication to find equivalent fractions					.	.*	.*
Using multiplication to find fractional parts of whole numbers						.*	.
Multiplying two fractions						.*	.*
Multiplying fractions with whole numbers						.*	.*
Multiplying fractions with mixed numbers						.*	.*
Estimating products of fractions, whole numbers, and mixed numbers						.	.
E. Multiplying Decimals							
Estimating products by rounding factors						.	.
Multiplying decimal factors by whole numbers						.*	.*
Multiplying two decimal factors						.*	.*
Multiplying decimals with zeros in the product						.*	.*
Multiplying decimals by multiples of 10						.*	.*
VIII. DIVISION							
A. Division Basics							
Exploring sharing-type division		.	.*				
Relate multiplication to division		.	.*	.*	.*	.	.
Relating division to repeated subtraction			.*	.			.
Using multiplication and division fact families				.*	.*		
Using 2 as a divisor				.*	.*		
Using 3 as a divisor				.*	.*		
Using 4 as a divisor				.*	.*		
Using 5 as a divisor				.*	.*		
Using 6 as a divisor				.*	.*		

	K	1	2	3	4	5	6
Using 7 as a divisor				.*	.*		
Using 8 as a divisor				.*	.*		
Using 9 as a divisor				.*	.*		
Dividing with 1				.*	.*	.*	.*
Dividing with 0				.*	.*	.*	.*
Dividing by multiples of 10, 100, and 1,000				.	.*	.*	.*
Using division facts to estimate quotients of unfamiliar division problems			
B. Long Division							
Learning steps of division				.*			
Dividing a 2-digit dividend by a 1-digit divisor; no remainders				.*	.*	.*	
Estimating 2- and 3-digit quotients					.	.	.
Dividing up to 4-digit numbers by a 1-digit divisor with remainders				.*	.*	.*	.*
Dividing 5-digit numbers by a 1-digit divisor with remainders						.*	.*
Interpreting remainders				.*	.*	.*	.*
Finding averages				.	.*	.*	.*
Dividing money amounts by a 1-digit divisor					.*	.*	.
Rules of divisibility						.*	.*
C. Multi-Digit Division							
Estimating quotients with 2-digit divisors						.	.
Correcting an estimated quotient					.	.	
Dividing up to 5-digit numbers by a 2-digit divisor						.*	.*
Dividing up to 5-digit numbers by a 3-digit divisor							.*
Checking multi-digit division by multiplication							.*
D. Dividing Fractions							
Exploring the division of fractions using objects and pictures						.*	.*
Dividing whole numbers by fractions						.*	.*
Dividing fractions by fractions						.*	.*
Dividing fractions and mixed numbers							.
Using division to simplify complex fractions							.
Estimating fraction quotients							.
Using division in the betweenness property							.

	K	1	2	3	4	5	6
E. Dividing Decimals							
Dividing a decimal by a whole number						.*	.*
Mentally dividing a decimal by 10, 100, and 1,000						.	.
Dividing money amounts						.*	.
Dividing whole numbers by decimals to the tenth, hundredth, and thousandth places							.*
Dividing with a decimal divisor and decimal dividend							.*
Estimating decimal quotients							.
IX. FRACTIONS							
A. Identifying Fractions							
Recognizing equal and non-equal parts	.*	.*	.*				
Identifying one-half of wholes or sets	.	.	.*	.*			
Identifying thirds of wholes or sets		.	.*	.*			
Identifying fourths of wholes or sets		.	.*	.*			
Identifying fractional parts of a whole and a set	.	.	.*	.*	.*	.	
Writing fractions for fractional parts		.	.*	.*	.*	.	
Dividing wholes and sets into fractional parts*	.*	.	
Showing or drawing fractional parts of a whole or set	.	.	.*	.*	.*	.	
Finding a fraction of a number					.*	.	
B. Comparing Fractions							
Using models to compare fractions with and without common denominators			.*	.*	.	.	
Using a number line to compare and order fractions				.*	.*	.*	
Comparing fractions with greater than, less than, and equal signs				.	.*	.*	.
Recognizing equal fractions			.*	.*	.*	.*	.
Using models to make equivalent fractions				.*	.*	.	.
Using multiplication and division to make equivalent fractions			
Writing a fraction in simplest terms					.	.*	.*
C. Mixed Numbers and Improper Fractions							
Identifying mixed numbers and whole numbers for fractional models				.	.*	.	.
Writing mixed numbers or whole numbers for fractions				.	.*	.	.

	K	1	2	3	4	5	6
D. Adding Fractions							
Adding fractions with common denominators				.*	.*	.*	.*
Determining the least common multiple						.	.
Determining the least common denominator						.	.
Adding fractions without common denominators					.*	.*	.*
Adding mixed numbers					.*	.*	.*
Adding mixed numbers with renaming						.*	.*
Estimating fraction and mixed number sums						.	.
E. Subtracting Fractions							
Subtracting fractions with common denominators				.*	.*	.*	.*
Determining the least common multiple						.	.
Determining the least common denominator						.	.
Subtracting fractions without common denominators					.	.*	.*
Subtracting mixed numbers					.	.*	.*
Subtracting fractions from a whole number with renaming						.*	.*
Subtracting mixed numbers with renaming						.*	.*
Estimating differences in fractions and mixed numbers						.	.
F. Multiplying Fractions							
Using multiplication to find equivalent fractions					.	.*	.*
Using multiplication to find fractional parts of whole numbers						.	.*
Multiplying two fractions						.*	.*
Multiplying fractions with mixed numbers						.*	.*
Estimating products of fractions, whole numbers, and mixed numbers						.	.
G. Dividing Fractions							
Exploring the division of fractions using objects and pictures						.	.
Dividing whole numbers by fractions						.*	.*
Dividing fractions by fractions						.*	.*
Dividing fractions and mixed numbers							.
Using division to simplify complex fractions							.

	K	1	2	3	4	5	6
Estimating fraction quotients							.
Using division in the betweenness property							.
X. DECIMALS							
A. Identifying Decimals							
Relating fraction concepts to decimals				.*	.*	.*	
Making models of decimals to the hundredths place				.*	.*		
Reading and writing decimals in the tenths place				.*	.*	.*	.*
Reading and writing decimals in the hundredths place				.*	.*	.*	.*
Reading and writing decimals greater than one				.*	.*	.*	.*
Exploring decimals in the thousandths place					.		
Reading and writing decimals in the thousandths place						.*	.*
Reading and writing decimals in the ten-thousandths place							.*
B. Comparing Decimals							
Comparing and ordering decimals to the hundredths place				.	.*		
Comparing and ordering decimals to the thousandths place						.*	
Comparing and ordering decimals to the ten-thousandths place							.*
Recognizing equivalent decimals; writing equal decimals through the hundredths place					.*	.*	.*
Rounding decimals to the nearest whole number				.	.*	.*	
Rounding decimals to the nearest tenth or hundredth						.*	
Rounding decimals through the hundred-thousandths place							.
C. Adding Decimals							
Adding decimals through the hundredths place				.*	.*	.*	
Adding decimals through the thousandths place						.*	
Adding decimals through the ten-thousandths place							.*
Estimating decimal sums				.*		.*	.
D. Subtracting Decimals							
Subtracting decimals through the hundredths place				.*	.*	.*	
Subtracting decimals through the thousandths place						.*	

	K	1	2	3	4	5	6
Subtracting decimals through the ten-thousandths place							.*
Estimating decimal differences						.*	.
E. Multiplying Decimals							
Estimating products by rounding factors						.	
Multiplying decimal factors by whole numbers						.*	.*
Multiplying two decimal factors						.*	.*
Multiplying decimals with zeros in the product						.*	.*
Multiplying decimals by multiples of 10						.	.*
F. Dividing Decimals							
Dividing a decimal by a whole number						.*	.*
Mentally dividing a decimal by 10, 100, and 1,000						.*	.*
Dividing money amounts						.*	.*
Dividing whole numbers by decimals to the tenth, hundredth, and thousandth places							.*
Dividing with a decimal divisor and decimal dividend							.*
Estimating decimal quotients							.
XI. ALGEBRA							
A. Equations							
Writing number sentences	.	.*	.*	.*	.*	.*	.*
Finding missing addends	.	.	.*	.*	.*	.*	.*
Finding a missing number in subtraction using various strategies			.	.*	.*		.*
Finding the missing factor				.	.*	.*	.*
Solving for a variable in a number sentence				.		.*	.*
Understanding related addition and subtraction facts		.*	.*	.	.*	.*	.*
Understanding related multiplication and division facts			.*	.*	.*	.*	.*
Checking computation by using the inverse operation			.*	.*	.*	.*	.*
Solving equations using inverse operations							.*
B. Properties							
Using the Order (Commutative) Property of Addition	.	.	.*	.*	.*	.*	.*
Using the Order (Commutative) Property of Multiplicaton				.*	.*	.*	.*
Using the Zero Property of Addition			.*	.*	.*	.*	.*

	K	1	2	3	4	5	6
Using the Zero Property of Multiplicaton				.*	.*	.*	.*
Using the Multiplicaton Property of One				.*	.*	.*	.*
Using the Grouping (Associative) Property of Addition				.*	.*	.*	.*
Using the Grouping (Associative) Property of Multiplication				*	.*	.*	.*
Using the Distributive Property						.*	.*
C. Factoring							
Distinguishing between a prime and composite number					.*	.*	.*
Prime factorization						.*	.*
Finding and listing factors of composite numbers					.*	.*	.
Finding the greatest common factor						.	.*
D. Coordinates							
Using grid coordinates		.					
Graphing ordered pairs				.		.*	.
Locating a point using ordered pairs				.		.	.
Using a four-quadrant grid							.
E. Formulas							
Using the formula for area					.*	.*	.
Using the formula for area of rectangles and squares						.*	.
Using the formula for area of quadrilaterals							.
Using the formula for area of triangles						.*	.
Applying the area formulas to irregular figures						.	.
Using the formula for area of circles							.*
Using the formula for perimeter					.*	.*	.
Using the formula for perimeter of a square and rectangle					.*	.*	.
Using the formula for circumference						.	.*
Using the formula for volume					.	.*	.*
Using the formula for volume of a triangular prism							.*
Using the formula for volume of a cube and rectangular prism						.*	.*
Using the formula for volume of a cylinder							.
Calculating interest						.	.*

	K	1	2	3	4	5	6
F. Exponents							
Exploring exponents						.*	.*
G. Integers							
Exploring integers						.*	.*
Comparing and ordering integers						.*	.*
Using a number line to add and subtract integers						.*	.*
Adding and subtracting integers (without number line)							.*
Multiplying and dividing integers							.*
H. Ratio and Proportions							
Solving proportions						.	.*
Using cross products						.	.*
Finding rate and unit rate							.*
XII. GEOMETRY							
A. Symmetry							
Recognizing slide symmetry (translation)
Recognizing spin or turn symmetry (rotation)*	.	.
Recognizing mirror or flip symmetry (reflection)*	.	.
Modeling slides, flips, and turns			
Identifying lines of symmetry
Identifying planes of symmetry							.
B. Shapes							
Identifying solid shapes	.*	.*	.*	.*	.*	.	.
Identifying faces, edges, and vertices of solid figures				.*	.*	.	.
Identifying polyhedrons						.	.
Identifying prisms			.*		.*	.	.
Identifying plane shapes	.*	.*	.*	.*	.*	.*	.
Distinguishing between similar solid and plane shapes (e.g., sphere and circle)	.*	.*	.*	.*			
Distinguishing between squares and rectangles	.*	.*	.*	.*	.*		
Classifying quadrilaterals (parallelograms, trapezoids, rhombuses, rectangles, squares)			.*		.*	.*	.
Identifying triangles by the length of sides and type of angles					.*	.	.

	K	1	2	3	4	5	6
Identifying the center, radius, and diameter of circles					.*	.	.*
Identifying central angles							.
Identifying chords						.	.
Identifying concentric circles							.
Constructing circles by using a compass					.	.*	.
Identifying polygons by number of sides					.*	.	.
Identifying regular polygons						.	.
Constructing polygons by using a compass							.
Drawing plane shapes	.	.	.*	.*			
Distinguishing between open and closed figures		.		.	.		
Identifying congruent figures				.*	.*	.	.
Identifying similar figures					.*	.	.
Using the geoboard		
Using pentominoes			.			.	
Exploring tessellations					.		
C. Angles							
Recognizing acute, obtuse, and right angles			.*	.*	.*	.	.
Identifying straight angles						.	.
Identifying and naming angles				.	.*	.	.
Identifying reflex angles							.
Measuring and constructing angles with a protractor						.*	.
Identifying complementary and supplementary angles							.*
D. Lines and Line Segments							
Identifying points					.	.	.
Identifying lines and line segments				.	.*	.	.
Identifying rays					.	.	.
Naming points, lines, line segments, and rays					.	.	.
Identifying parallel and intersecting lines				.	.*	.	.
Identifying perpendicular lines					.*	.	.
Identifying skew lines							.
Constructing congruent line segments							.

	K	1	2	3	4	5	6
Bisecting line segments							•
Identifying planes						•*	•
E. Coordinates							
Locating ordered pairs				•	•	•*	•
F. Measurement of Geometric Figures							
Finding area by counting square units		•		•*	•		
Finding the area of rectangles and squares				•	•*	•*	•
Finding the area of quadrilaterals							•
Finding the area of triangles						•*	•
Finding the area of irregular figures						•*	•
Finding surface area						•*	•
Finding the perimeter of polygons				•*	•*	•	•
Finding circumference						•	•*
Relating circumference and diameter as π						•	•*
Finding the area of a circle							•*
Finding volume by counting cubic units					•	•	
Finding the volume of rectangular prisms					•	•	•*
Finding the volume of triangular prisms and cylinders							•*
XIII. PROBLEM SOLVING							
A. Data Sources							
Using information from pictures	•*	•*	•*				
Using a code		•	•				
Using a calendar to solve problems	•	•	•	•	•	•	
Using information from a line plot						•*	•*
Using information from a menu					•		
Using information from a recipe				•	•	•	•
Using information from a nutrition label							•
Using a stem-and-leaf plot							•
Using information from tables and graphs	•*	•*	•*	•*	•*	•*	•*

	K	1	2	3	4	5	6
B. Skills and Strategies							
Acting out a problem	•	•			•		
Analyzing the data	•	•*	•*	•*	•*	•*	•*
Choosing the best strategy for a given problem					•*	•*	•*
Choosing the correct operation		•*	•*	•*	•*	•*	•*
Choosing mental math, pencil and paper, or calculator			•*	•*	•		•*
Conducting an experiment; drawing conclusions	•*	•	•*	•*	•*	•*	•*
Determining the best measurement tool for specific situations		•	•				
Determining reasonable answers	•*	•*	•*	•*	•*	•*	•*
Drawing a picture, diagram, or model	•*	•*	•*	•*	•*	•*	•*
Estimating and verifying measurements		•*	•*	•*	•*	•*	•*
Looking for a pattern	•*	•*	•*	•*	•*	•*	•*
Making a graph	•*	•*	•*	•*	•*	•*	•*
Making a systematic list				•*	•*	•*	•*
Making a table	•	•	•*	•*	•*	•*	•*
Recognizing that there is insufficient information		•			•	•*	
Recognizing unnecessary information		•			•*	•*	
Solving analogies							•
Solving two-step word problems			•	•*	•*	•*	•*
Solving multi-step word problems					•*	•*	•*
Solving problems with more than one answer				•	•	•	•
Using a calculator			•	•	•	•	•*
Using formulas					•*	•	•*
Using inverse operations			•*			•*	•*
Using known equations						•*	•*
Using logical reasoning			•*			•*	•*
Using variables to solve for a missing number				•		•*	•*
Using the STAR Problem-Solving Path		•	•				
Using the Pathway to Problem Solving (Problem-Solving Path)				•	•		
Using the Problem-Solving Guide						•	•

	K	1	2	3	4	5	6
Using the “try and check” method					•	•	
Working backward				•	•	•	•
Writing an equation					•*	•*	•*
Writing a math sentence or story using information from pictures	•*	•*	•*	•*			
C. Computational Skills Application							
Estimating sums		•*	•*	•*	•*	•*	•*
Estimating differences			•*	•*	•*	•*	•*
Addition	•*	•*	•*	•*	•*	•*	•*
Subtraction	•*	•*	•*	•*	•*	•*	•*
Addition and subtraction of money	•		•*	•*	•*	•*	•*
Estimating products				•*	•*	•*	•*
Estimating quotients				•*	•*	•*	•*
Multiplication			•*	•*	•*	•*	•*
Division			•*	•*	•*	•*	•*
Multiplication and division of money				•*	•*	•*	•*
Division, interpreting remainders				•*	•*	•*	•*
Fractions			•*	•*	•*	•*	•*
Decimals				•*	•*	•*	•*
Percents						•*	•*
Checking and correcting computation (inverse operations)			•*	•*	•*	•*	•*
Elapsed time	•	•	•*	•*	•*	•*	•*
Adding and subtracting hours and minutes						•*	•*
D. Map Skills							
Using a compass and directional words		•					
Identifying locations on a map		•		•	•	•	•
Following directions on a map		•				•	
Determining the best route				•	•	•	•
Calculating mileage					•	•	•
Using a scale to calculate mileage						•	•
Using data from scale drawings						•	•
Using a map to calculate area and perimeter							•

XIV. PROBABILITY

A. Probability Basics

Relating favorable outcomes to the number of possible outcomes		•		•*	•*	•	•*
Making predictions	•	•		•*	•*	•*	•*
Identifying outcomes as certain (1), probable, or impossible (0)				•*	•*	•*	•*
Identifying outcomes as less likely, more likely, or equally likely					•*	•	•*
Writing probability as a fraction				•	•*	•	•
Using proportions in probability				•	•	•	•
Writing probability as a percent							•

B. Advanced Probability

Distinguishing between experimental probability and mathematical (or theoretical) probability							•
Representing possible outcomes with a tree diagram or sample space							•*
Arranging items when order matters (permutations) and when order does not matter (combinations)							•
Recording outcomes on a line plot							•
Determining probability of compound events							•*

XV. TECHNOLOGY

A. Keyboard Skills

Recognizing number and operational keys on calculators		•	•	•			
Performing key sequences					•	•	•
Using the percent key						•	•
Using the square root key							•
Using the square (exponent) key							•
Using the integer sign change key							•

B. Problem Solving

Distinguishing problems best solved by calculator, pencil and paper, or mental math			•*	•*	•		•*
Using the calculator to check and correct computation		•				•	
Using the calculator for advanced addition and subtraction		•	•		•	•	•*
Using the calculator for addition and subtraction of money			•		•	•	•
Using the calculator for multiplication					•	•	•*

	K	1	2	3	4	5	6
Using the calculator for division					•	•	•*
Calculating average or mean					•	•*	•*
Calculating range						•	•*
Finding decimal equivalents for fractions						•*	•*
Finding percents						•*	•*
Using a calculator for completing formulas							•*
Using calculator computation to design tables and graphs						•	•
C. Patterns							
Finding patterns by repeated multiplication (constant multipliers)					•	•*	•
Distinguishing between terminating and repeating decimals						•	•
Finding multiples of larger numbers						•	•
Patterns of equations							•
Using calculators to square numbers					•		•
XVI. MEASUREMENT							
A. Linear Measurement							
Comparing lengths of everyday objects (without measuring)	•*	•*			•		
Measuring length with nonstandard units	•	•*		•*	•*		
Measuring by whole inches	•	•*	•*	•*	•*	•	
Measuring to the nearest half inch				•*	•*	•	
Measuring to the nearest quarter inch					•*	•	
Measuring to the nearest eighth inch						•	
Measuring to the nearest sixteenth inch						•	
Estimating and measuring by whole feet	•	•	•*	•*	•*		
Estimating and measuring by whole yards			•*	•*	•*		
Estimating length by miles				•*			
Converting measurements from one customary unit to another					•	•	•
Adding and subtracting mixed customary units of linear measurement							•
Estimating and measuring by millimeters					•*	•	
Estimating and measuring by centimeters		•	•*	•*	•*	•	
Estimating and measuring by decimeters			•		•*	•	

	K	1	2	3	4	5	6
Estimating and measuring by meters			.*	.*	.*	.	
Estimating length by meters or kilometers				.*	.*	.	
Converting measurements from one metric unit to another					.	.	.
B. Capacity							
Comparing volume of everyday objects	.	.	.*		.	.	
Comparing different units of capacity (cups, pints, and quarts)		.	.*	.*	.	.	
Estimating and measuring by cups, pints, quarts, and gallons		.	.*	.*	.	.	
Converting measurements from one customary unit to another					.	.	.
Adding and subtracting mixed customary units of capacity							.
Comparing other units of capacity to the liter		.		.*	.	.	
Estimating and measuring by liters				.*	.	.	
Estimating and measuring by milliliters					.	.	
Converting measurements from one metric unit of capacity to another					.	.	.
C. Weight and Mass							
Comparing the weight of everyday objects to one pound*	.	.	
Estimating and measuring weight in ounces and pounds*	.	.	
Estimating weight in tons					.		
Converting measurements from one customary unit of weight to another					.	.	.
Adding and subtracting mixed customary units of weight							.
Estimating and measuring mass in grams and kilograms		.	.	.*	.	.	
Converting measurements from one metric unit of mass to another					.	.	.
Distinguishing between mass and weight							.
D. Temperature							
Estimating, measuring, and recording temperature using a Fahrenheit thermometer
Estimating, measuring, and recording temperature using a Celsius thermometer
E. Measurement Formulas							
Finding area by counting square units		.		.*	.		
Using the formula for finding area of rectangles and squares					.*	.*	.
Using the formula for finding area of parallelograms and trapezoids							.

	K	1	2	3	4	5	6
Finding the area of a triangle						.*	.
Finding the surface area of a prism						.*	.
Finding the surface area of a pyramid							.
Finding the surface area of a cylinder							.
Finding perimeter by adding the length of sides				.*	.*	.	.
Using the formula for finding perimeter of rectangles and squares					.*	.	.
Finding the circumference of a circle						.	.
Finding volume by counting cubic units				.*	.	.	
Using the formula for finding volume of solid figures					.	.*	.
F. Maps and Scale Drawings							
Finding and calculating distances					.	.	.
XVII. TIME							
A. Using the calendar							
Relating activities to months and seasons	.	.*	.*				
Reading the calendar	.*	.*	.*	.	.		
Completing a calendar	.	.	.				
Naming the date, weeks before or after a given date			.	.	.		
Finding elapsed time on a calendar			.		.		
B. Telling and Writing Time							
Telling time to the hour	.*	.*					
Telling time to the half hour	.	.*	.*	.*			
Telling time to the quarter hour		.	.*	.*			
Telling time in 5-minute intervals			.	.*			
Telling time to the minute				.*	.		
Telling time by minutes before and after the hour				.*			
Distinguishing between AM and PM			.*				
Writing time in digital notation			.				
C. Comparing Time							
Comparing durations of time (activities that take more or less time)		.					
Comparing durations of elapsed time					.		
Choosing an appropriate unit of time					.		

	K	1	2	3	4	5	6
D. Calculating Time							
Calculating elapsed time (15-minute intervals)			•				
Calculating elapsed time (whole hour intervals)	•	•	•*				
Calculating elapsed time (hours and minute intervals)			•	•*	•	•	•
Stating an end time for a given elapsed time		•	•*	•*	•	•	•
Reading a schedule	•	•	•	•	•		
Organizing information on a schedule chart	•			•*			
Calculating time in other time zones					•	•	•
Calculating elapsed time between time zones						•	•
Adding and subtracting hours and minutes						•	•
Adding and subtracting hours, minutes, and seconds						•	•
XVIII. MONEY							
A. Identifying U.S. Currency							
Recognizing and counting pennies, nickels, and dimes	•	•*	•*	•*			
Recognizing and counting quarters	•	•*	•*	•*			
Recognizing one dollar and identifying amounts equal to one dollar	•	•*	•*	•*			
Recognizing and counting half-dollars			•*	•*			
Comparing money amounts	•	•*	•*	•*			
Identifying equivalent groups of coins		•*	•*				
Identifying equivalent groups of coins or bills	•		•*	•*			
Rounding money amounts to the nearest dollar or 10 dollars					•*	•	•
Exploring the symbols and history of the US dollar bill					•		
B. Calculating Money Amounts							
Adding and subtracting up to 10 cents	•	•					
Adding and subtracting up to one dollar		•	•*				
Adding mixed dollar and cent amounts		•	•*	•*	•*	•	•
Subtracting mixed dollar and cent amounts			•*	•*	•*	•	•
Estimating a sum or difference by rounding to the nearest whole dollar				•*	•*	•	•
Estimating a sum or difference by rounding to the nearest 10 dollars						•	•

	K	1	2	3	4	5	6
Multiplying 4-digit money amounts by 1-digit multipliers					.*	.	.
Multiplying money amounts by 2-digit multipliers					.	.	.
Multiplying money amounts by other decimals						.	.
Dividing money amounts by 1-digit divisors					.	.	.
Dividing money amounts by 2-digit divisors						.	.
Dividing money amounts by other decimals							.
C. Everyday Application							
Making buying decisions	.	.	.**
Making change		.	.*
Designing a budget					.		.
Balancing a checking account							.
Calculating taxes and discounts						.	.*
Calculating interest						.	.*
XIX. RATIO, PROPORTION, AND PERCENT							
A. Ratio							
Identifying fractions	.	.	.*	.*	.*	.*	
Writing fractions*	.*	.*	.*
Comparing fractions			.	.*	.*	.*	.*
Relating fractions and decimals				.*	.	.*	.*
Defining ratio					.	.	.*
Expressing ratio as a fraction, decimal, or percent					.	.	.*
Writing ratios for given situations					.	.	.*
Distinguishing between rate and ratio							.
Calculating unit rate							.
B. Proportion							
Writing equivalent fractions using models				.*	.*	.	
Writing equivalent fractions by multiplying and dividing				.*	.	.	.
Writing equivalent ratios, completing ratio tables						.	.*
Defining and recognizing proportions						.	.*
Solving proportions						.	.*
Using proportions to solve problems						.	.*

	K	1	2	3	4	5	6
C. Percent							
Relating fractions and decimals to percents					•	•*	•*
Relating ratio to percent					•	•	•*
Converting fractions with denominators of 100 to percents					•	•	
Converting fractions to percents and percents to fractions						•	•
Writing decimals as percents and percents as decimals						•*	•
Using mental math to find percent based on multiples of 10						•	•
Estimating percent by rounding						•	•
Finding percent of a number						•*	•
Finding what percent one number is of another							•
Writing and solving equations involving percent						•	•
Using percent skills in everyday applications						•	•

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