## Scope and Sequence <br> Earlybird Kindergarten, Standards Edition <br> Primary Mathematics, Standards Edition <br> Copyright © 2008 [SingaporeMath.com Inc.]

The check mark indicates where the topic is first introduced or specifically addressed.

|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
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| Whole Numbers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand and use ordinal numbers to describe position. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count objects in a set, read and write numerals to 10. | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Compare two or more sets of objects up to 10 and identify which set is equal to, more than, or less than the other. | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Compare two sets of objects up to 10 and determine how many more or less are in one set than the other. |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count and identify 1 more than or 1 less than a number within 10. | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Use place-value models to represent numbers to 30. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Count objects in a set, read, and write numerals to 30. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Count and identify 1 more than or 1 less than a number within 30. |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Understand number order and know that larger numbers describe sets with more objects in them than smaller numbers. | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count, read, and write whole numbers to 20. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Compare numbers within 20. |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Use place-value models to represent numbers to 100. |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Read, write in words, standard, and expanded notation, and identify place values of digits for numbers within 100. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Count and identify 1 more than, 1 less than, 10 more than, 10 less than a number within 100. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Compare numbers within 100 and use the symbols <, +, >. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Make reasonable estimates when comparing numbers and sets of objects within 100. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
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| Describe and extend regular number patterns <br> within 100, including counting by 2's and 20's. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Use place-value models to represent numbers to <br> 1000. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Read, write in words, standard, and expanded <br> notation, identify place values of digits, and <br> compare and order numbers within 1000. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Describe and extend regular number patterns <br> within 1000. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Compare numbers within 1000 and use the symbols <br> <, +,>. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Use place-value models to represent numbers to <br> $10,000$. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Read, write in words, standard, and expanded <br> notation, identify place values of digits, and <br> compare and order numbers within 10,000. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Count on and back in steps of 1, 10, 100, and 1000 <br> and complete or extend regular number patterns <br> within 10,000. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Round numbers within 100,000 to the nearest 10 or <br> 100 |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Round numbers within 10,000 to the nearest 10, <br> 100, or 1000. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Use place-value models to represent numbers to <br> 100,000. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Read, write in words, standard, and expanded <br> notation, identify place values of digits, and <br> compare and order numbers within 100,000. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Complete or extend regular number patterns for <br> numbers within 100,000. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Use place-value models to represent numbers to <br> $1,000,000$. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Use place-value models to represent numbers to <br> $1,000,000,000$. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Read, write in words, standard, and expanded <br> notation, identify place values of digits, and <br> compare and order numbers within 1,000,000,000. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Complete or extend regular number patterns for <br> numbers within 1,000,000,000. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Round numbers within 1,000,000,000 to the <br> nearest 10, 100 or 1000 |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |


|  | KA | KB | 1A |  | 1B | 2A | 2B | 3 |  |  | 4A | 4B | 5A | 5B | 6A | 6B |
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| Read, write in words, standard, and expanded notation, and identify place values of digits and round numbers in the billions. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Round large numbers to the nearest $10,100,1000$, 10,000 , or 100,000. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Addition and Subtraction of Whole Numbers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand number bonds and part-whole concept. |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand the meaning of addition (missing whole, putting together, counting on, and simple addition stories). |  | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Understand the meaning of subtraction (missing part, taking away, counting back, and simple subtraction stories). |  | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Use concrete objects to determine the answer to addition and subtraction problems for two numbers within 10. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize when an estimate is reasonable. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Add/Subtract numbers within 20. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use inverse relationship between addition and subtraction. |  |  | $\checkmark$ |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Learn addition and subtraction facts within 20. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Compare numbers by using subtraction to find the difference. |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Add/Subtract numbers within 100. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count by 2's, and 5's within 100. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Count by 10's within 100. |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Find the sum of three 1-digit numbers. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Add/Subtract numbers within 1000. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Add/Subtract numbers within 10,000. |  |  |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |
| Use estimation to verify the reasonableness of calculated results in addition and subtraction, check subtraction problems using addition. |  |  |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Determine whether an estimate is sufficient for a specific problem situation. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Add/subtract numbers in the billions. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Multiplication and Division of Whole Numbers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use repeated addition and arrays to solve multiplication problems within 40. |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Use sharing and grouping to divide. |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Relate division to multiplication. |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |


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| Recognize and extend regular linear patterns. |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Multiply/divide by 2's and 3's. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Learn multiplication/division facts for 2's and 3's. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Multiply/divide by 4's, 5's, and 10's. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Learn multiplication/division facts for 4's, 5's, and 10's. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Use repeated subtraction to divide and find the remainder. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Understand quotient and remainder. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Understand the properties of 0 and 1 in multiplication and division. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Multiply/Divide by 6's, 7's, 8's, and 9's. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Learn multiplication/division facts for 6's, 7's, 8's, and 9's. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Multiply numbers within 1000 by a 1-digit number. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Multiply numbers within 10,000 by a 1 -digit number. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| Divide numbers within 1000 by a 1-digit number, including situations where there is a remainder. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Divide numbers within 10,000 by a 1-digit number, including situations where there is a remainder. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| Multiply numbers within 10,000 by a 2-digit number. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Divide numbers within 10,000 by a 2-digit number. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Multiply/divide numbers within 1,000,000 by tens, hundreds, or thousands. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Use estimation to verify the reasonableness of calculated results in multiplication and division problems. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Check division problems using multiplication. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Find the factors and common factors of whole numbers within 100. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Find the greatest common factor of up to 3 numbers within 100. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Identify prime numbers. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Determine the prime factors of numbers within 100 and write the numbers as products of prime numbers, using exponents. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Find multiples and common multiples of whole numbers within 100. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |


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| Find the lowest common multiple of up to 3 numbers within 100. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Use divisibility rules for $2,3,5,6,9$, and 10 . |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Use order of operations to solve mathematical expressions with or without parentheses. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Understand the distributive property. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Mental Math Strategies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use the commutative and associative properties to perform mental calculations and check results. |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Use the distributive property to perform mental calculations and check results. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Add 1-digit numbers involving renaming (e.g. 7 +5) by making a ten. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Subtract 1-digit numbers involving renaming (e.g. $14-8)$ by subtracting from a ten. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Add/Subtract numbers within 100. |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Add/Subtract 1's, 10's, or 100's to numbers within 1000. |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Subtract from 100. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Subtract from 1000. |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Add/Subtract a number close to 100 (e.g. 98). |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Add/subtract a number close to 1000 (e.g. 998). |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Add/subtract a number close to a multiple of 100 (e.g. 498). |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Add and subtract money in compound units (dollars and cents) when the cents are multiples of 5 or close to \$1.00. |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |
| Add/Subtract measurements in compound units. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Add/Subtract tenths, hundredths, or thousandths to or from decimal numbers. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Multiply and divide tens, hundreds, and thousands by a 1-digit number. |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Multiply by 99 or by 25. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Multiply 10's by 10's or 100's. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Multiply by a number one less than a multiple of 10 or 100 (e.g. 49, 499). |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Fractions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize and name halves and fourths. |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Recognize, write, name, and illustrate fractions of a whole (denominators 1-12). |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |


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| Find the fraction with the same denominator to make a whole with another fraction. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Compare and order unit fractions. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Compare and order fractions with the same denominator or with the same numerator. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Find equivalent fractions and simplest form of a fraction. |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Compare and order fractions with different denominators. |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| Recognize and name the fraction of a set. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Find the value given the fraction of a set, using objects or drawings. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Find the fraction of a set where the answer is a whole number. |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Find the fraction of a set where the answer is a whole number or a mixed number. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Find coin amounts as a fraction of a dollar. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |
| Find fraction of a set for measurements (e.g. 10 minutes as a fraction of one hour). |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Add/Subtract like fractions. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Add/Subtract related fractions. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Add/Subtract unlike fractions. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Understand mixed numbers and improper fractions, convert between them, locate them on a number line. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Relate division to fractions. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Add/subtract mixed numbers. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Determine the least common multiple and the greatest common divisor of whole numbers and use them to solve problems involving fractions. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Multiply a fraction by a whole number. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| Multiply a fraction by a fraction. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Divide a fraction by a whole number. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Divide a whole number or a fraction by a fraction. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Money |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify and know the value of coins and use the cent symbol. |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Identify and know the value of bills and use the dollar symbol. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count combinations of coins. |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Count combinations of bills. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |


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| Count combinations of bills and coins to \$10.00. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Use decimal notation for money. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Use decimal notation to add and subtract money within $\$ 10.00$. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Use decimal notation to add and subtract money within $\$ 100.00$. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Multiply and divide money amounts in decimal notation. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Decimals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand tenths, hundredths, thousandths, locate decimal numbers on a number line, compare decimal numbers. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Convert a decimal to a fraction and simplify. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Convert a fraction to a decimal number (denominators are a factor of 10,100 , or 1000 ). |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Compare and order decimal numbers of up to 3 decimal places and fractions. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Round decimal numbers of up to 2 decimal places to the nearest whole number or to 1-decimal place. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Round decimal numbers up to 3 decimal places to the nearest whole number, to 1-decimal place, or to 2-decimal places. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Add/Subtract decimal numbers of up to 2 decimal places. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Add/Subtract decimal numbers of up to 3 decimal places. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Multiply/Divide decimal numbers of up to 2 decimal places by a whole number. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Find the quotient of a division problem correct to 1 decimal place. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Find the quotient of a division problem correct to 2decimal places. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Convert fractions to decimals correct to 2-decimal places. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Multiply/Divide decimal number by tens, hundreds, or thousands. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Multiply/divide a decimal number by a 2-digit whole number. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Multiply/divide a whole number or a decimal by a decimal. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Use estimation to verify the reasonableness of calculated results in problems involving decimal numbers. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Time |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand sequence of events. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Demonstrate an understanding of the concept of time (morning, afternoon, evening, today, yesterday, tomorrow, week, and year). |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Name the days of the week. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand the calendar as a tool for measuring time. |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Tell time to the hour (analog clock face). |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Relate time to events. |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Tell time to the half-hour (analog clock face). |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Tell time to the nearest 5-minute mark (analog clock face). |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Tell time to the minute (analog clock face). |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Estimate reasonable time intervals. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Find the duration of time intervals. |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |
| Find starting or ending times, given a time and the interval. |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |
| Know relationships of time (years, months, days, weeks, hours, and seconds). |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |
| Convert between of units of time. |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| Length, Weight, Mass, and Capacity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Compare and measure length and weight by making direct comparisons with reference objects. | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Compare and measure capacity by making direct comparisons with reference objects. | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Compare and measure length, and weight using nonstandard units. | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Compare and measure capacity using nonstandard units. | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Measure and estimate length of objects in meters and centimeters, yards, feet, and inches. |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |  |
| Understand and estimate length in kilometers and miles. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Compare measurements made using different units. |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |
| Measure and estimate weight in kilograms, grams, pounds, and ounces. |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure and estimate capacity in liters, cups, pints, quarts, half-gallon, and gallon. |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |
| Measure and estimate capacity in milliliters. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Convert units within a metric system using multiplication. |  |  |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |
| Add/subtract measurements in compound units. |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |
| Multiply/divide measurements in compound units. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Convert fractional measurements to a different unit or a compound unit, within a measuring system. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Convert units involving decimals within a measuring system. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Perimeter, Area, and Volume |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Find the perimeter of polygons. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Find the area of shapes by covering them with unit squares or by counting squares. |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Understand and use units of area, such as square centimeter and square inch. |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Find the area, perimeter, and unknown sides of rectangles. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Find the area and perimeter of composite figures made from squares and rectangles. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |
| Derive the formula for area of a triangle and find the area of triangles. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Derive the formula for area of a parallelogram and find the area of parallelograms. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Find the surface area of cubes and rectangular prisms. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Count unit cubes in 2-dimensional representations of 3-dimensional solids. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| Find the volume of solid figures by counting cubic units. |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |
| Understand and use units of volume, such as cubic centimeter and cubic inch. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Find the volume of rectangular prisms. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |
| Find the side of a rectangular prism given the volume and two sides or area of one side. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Understand the relationship between cubic centimeters, milliliters, and liters. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Solve problems involving the change in height of liquids and volume of liquids in rectangular tanks, including rate problems. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Find the volume of triangular prisms and cylinders. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Find the volume of composite figures involving <br> prisms and cylinders. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3 | 4 | 4 | 5 | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Identify acute, obtuse, and right angles and relate $90^{\circ}, 180^{\circ}, 270^{\circ}$, and $360^{\circ}$ with quarter, half, threequarter, and whole turn. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Measure and construct angles. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Identify perpendicular and parallel lines. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Name different types of triangles and quadrilaterals. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Find the lengths of unknown sides given the length of other sides or the perimeter of triangles and quadrilaterals. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify angles as vertical, adjacent, complementary, or supplementary and provide descriptions of these terms. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Find unknown angles in figures based on identifying vertical, adjacent, complementary, or supplementary angles. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |
| Know and use angle properties of intersecting lines, triangles, parallelograms, rhombuses, and trapezoids to solve problems involving finding find unknown angles. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |
| Construct triangles, parallelograms, and rhombuses with specified angles. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |
| Construct trapezoids various quadrilaterals with specified angles and lengths of sides. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Visualize, describe, and draw geometric solids. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |
| Identify nets of solids, or solids of nets. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify congruent figures |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Create tessellations. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify figures that have line symmetry. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify figures that have rotational symmetry. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand the coordinate grid, locate points, and write ordered pairs (first quadrant). |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Understand the coordinate grid, locate points, and write ordered pairs (all four quadrants). |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Find the length of horizontal and vertical lines on the coordinate grid. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Percentage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand and use percent. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Find decimal and fraction equivalents for percentages. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Write fractions as percentages. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Solve problems involving percentage of a quantity. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Solve problems involving part of a whole as a percentage. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Solve problems involving one quantity as a percentage of another. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Solve percentage problems using a unitary method. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Calculate given percentages of quantities and solve problems involving discounts at sales, interest earned, percentage increase or decrease. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Ratio/Average/Rate/Speed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use ratios to compare two quantities. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Use ratios to compare three quantities. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Find equivalent ratios and simplify ratios |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Use ratios to solve problems. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Relate ratios to fraction of a quantity. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Solve problems involving changing ratios. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Relate ratios to proportions. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Solve problems involving proportions. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Understand rate as the measure of one quantity per unit value of another. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Solve problems involving rate. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Use a unitary approach to solve rate problems. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Solve discontinuous rate problems involving time. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Understand and use speed and average speed to solve problems. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Word Problems |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Make addition/subtraction stories from problem situations. |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Write equations and solve simple addition/subtraction stories. |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Solve simple multiplication/division problems using objects and pictures. |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Write equations and solve one-step word problems involving addition/subtraction. |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |
| Write equations and solve one-step word problems involving multiplication/division. |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |
| Solve simple word problems involving fraction of a set. |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Solve 2-step word problems which involve the four operations on whole numbers. |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Solve 2-step word problems which involve fraction of a set. |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |
| Solve 2-steip word problems which involve decimals and fractions. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| Solve multi-step word problems involving all four operations on whole numbers, fractions, decimals, percentage, and ratios. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Solve multi-step word problems involving average, rate, and percentage. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Solve multi-step word problems involving speed and average speed. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Data Analysis and Probability |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify, sort, and classify objects by common attributes (e.g. appearance, size, shape, color, pattern, function). | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify objects that do not belong to a particular group. | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sort objects and data by common attributes. |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
| Collect, organize, and represent data using objects, pictures, picture graphs, and bar graphs (within 10). | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Represent and compare data using picture graphs |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Represent and compare data bar graphs. |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Represent and compare data using tally charts. |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| Collect, organize, and analyze data using tables and bar graphs. |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| Collect, organize, and analyze data using tally charts. |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| Ask and solve questions related to data representation, including finding the range and mode. |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Collect, organize, and analyze data using line plots. |  |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Collect, organize, and analyze data using line graphs. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Collect, organize, and analyze data using coordinate graphs |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Collect, organize and display data in pie charts. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Collect, organize and display data in histograms. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Find the average of a set of data. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Find a data value given the average and the other values. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| Identify the mode and median of categorical data. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |


|  | KA | KB | 1A | 1B |  |  | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Understand, find, and compare mean, median, and mode of a set of data. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |
| Find the range of a set of data. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Understand how additional data added to data sets may affect measures of central tendency. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Understand how the inclusion or exclusion of outliers affects measures of central tendency. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Compare different samples of a population with the data from the entire population and identify situations in which it makes sense to use a sample. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Identify different ways of selecting a sample and which method makes the sample more representative of the population. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Know why a specific measure of central tendency provides the most useful information in a given context. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Analyze data displays and identify data that represent sampling errors. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Identify ordered pairs of data from a graph. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  |
| Identify whether common events are certain, likely, unlikely, or impossible. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Record the possible outcomes for a simple event and systematically keep track of the outcome when it is repeated many times. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Summarize and display results of simple probability experiments, use the results to predict future events. |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| Represent all possible outcomes for simple probability experiments. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Express all possible outcome of experimental probability situations verbally and numerically and as fractions. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Use data to estimate the probability of future events. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Represent probabilities as ratios, proportions, decimals, and percentages. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Find the probability of disjoint events and understand that the theoretical probability of disjoint events is the sum of the two individual probabilities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Find the probability of combined events and understand that the theoretical probability of combined events is the product of the two probabilities. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Understand the difference between independent and dependent events. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Algebra |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Solve problems involving numeric equations or inequalities. |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |
| Select appropriate operational symbol to make an expression true. |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |  |  |
| Use boxes and other symbols to stand for unknown numbers in expressions and equations. |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| Use letters to stand for unknown numbers in equations and solve for the unknown numbers using properties of the four operations. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Represent unknown quantities with bar diagrams and solve word problems involving whole numbers using bar diagrams. |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |
| Use bar diagrams to solve word problems involving fractions. |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  | $\checkmark$ |  |
| Use bar diagrams to solve word problems involving decimals. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  |
| Use bar diagrams to solve word problems involving percentage. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Use bar diagrams to solve word problems involving ratio. |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |
| Solve word problems involving the functional relationship between two quantities. |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Use and interpret formulas to answer questions about quantities and their relationships. |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| Write simple equations involving related changes in quantities (e.g. $y=3 x+5$ ) and solve for the dependent value when given the independent value. |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  |
| Write and evaluate simple algebraic expressions in one variable using substitution. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Write and evaluate simple algebraic expressions for a given situation, using up to three variables. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| Use the distributive property in expressions with variables. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |
| Simplify algebraic expressions in one variable. |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |  |


|  | KA | KB | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Use variables in expressions describing geometric <br> quantities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Solve simple algebraic equations in one variable. |  |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| Solve problems involving simple linear functions <br> with whole numbers values, write the equation, <br> and graph the resulting ordered pairs on a grid. |  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |  |

