Mathletics Quebec Program of Studies

Skill Quests



Grades 3 - 6

May, 2022



Mathletics

Quebec Program of Studies Skill Quests May 2022

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Grade 3

1 Arithmetic

1.1 Understanding and writing numbers

| Outcome | Quests | Content |
|---|-----------------------------------|-------------------------------------|
| A. Natural numbers less than | Count using natural | Counting by 1s to 1000 |
| 100 000 | numbers | Counting by 2s to 1000 |
| 1. Counts or recites counting | | Counting by 3s to 1000 |
| rhymes involving natural numbers | | Counting by 4s to 1000 |
| b. counts forward or backward | | Counting by 5s to 1000 |
| c. skip counts (e.g. by twos) | | Counting by 10s to 1000 |
| A. Natural numbers less than 100 000 2. Counts collections (using objects or drawings) c. counts a collection by grouping or regrouping | Counting collections | Counting collections of 10s & 100s |
| d. counts a pre-grouped collection | | |
| A. Natural numbers less than 100 000 3. Reads and writes any natural number | Read & write numbers to 10 000 | Reading & writing numbers to 10 000 |
| A. Natural numbers less than | Place value of numbers | Place value of numbers to 10 |
| 100 000 | to 10 000 | 000 |
| 4. Represents natural numbers in | | |
| different ways or associates a | | |
| number with a set of objects or | | |
| drawings | | |
| b. emphasis on exchanging | | |
| apparent, non-accessible | | |
| groupings, using structured | | |
| materials | | |
| (e.g. base ten blocks, number | | |
| tables) | | |
| c. emphasis on place value in non- apparent, non-accessible | | |
| groupings, using materials for | | |
| which groupings are symbolic | | |
| A. Natural numbers less than | Compose & decompose | Composing & decomposing |
| 100 000 | numbers to 10 000 | numbers to 10 000 |
| 5. Composes and decomposes a | | Non-standard partitioning of |
| natural number in a variety of ways | | numbers to 10 000 |
| (e.g. 123 = 100 + 23, 123 = 100 + | | |

| 20 + 2 122 - E0 + E0 + 20 + 2 122 | | |
|---|--------------------------|----------------------------------|
| 20 + 3, $123 = 50 + 50 + 20 + 3$, $123= 2 \times 50 + 30 - 7, 123 = 2 \times 60 + 3$ | | |
| A. Natural numbers less than | Recognize equivalent | Recognizing equivalent |
| 100 000 | number sentences | number sentences |
| 6. Identifies equivalent expressions | | |
| (e.g. 52 = 40 + 12, 25 + 27 = 40 + | | |
| 12, 52 = 104 ÷ 2) | | |
| A. Natural numbers less than | Order numbers to | Ordering numbers to 10 000 |
| 100 000 | 10 000 | |
| 8. Arranges natural numbers in | | |
| increasing or decreasing order | | |
| A. Natural numbers less than | Investigate odd & even | Investigating odd & even |
| 100 000 | numbers | numbers |
| 12. Classifies natural numbers in | | |
| various ways, based on their | | |
| properties (e.g. even numbers, | | |
| composite numbers) | | |
| A. Natural numbers less than | Round numbers to | Rounding numbers to 10 000 |
| 100 000 | 10 000 | |
| 13. Approximates a collection, | | |
| using objects or drawings (e.g. | | |
| estimate, round up/down to a given | | |
| value) | | |
| B. Fractions (using objects or | Represent fractions | Introducing thirds |
| drawings) | | Introducing fifths |
| 2. Represents a fraction in a variety | | Introducing tenths |
| of ways, based on a whole or a | | Introducing sixths |
| collection of objects | | Introducing eighths |
| B. Fractions (using objects or | Match fractions to part | Equivalence in fractions |
| drawings) | of a whole | (halves & fourths) |
| 3. Matches a fraction to part of a | | Equivalence in fractions (thirds |
| whole (congruent or equivalent | | & sixths) |
| parts) or part of a group of objects, | | |
| and vice versa | | |
| B. Fractions (using objects or | | Fair share problems with |
| drawings) | fractions | fractions |
| 4. Identifies the different meanings | | |
| of fractions (sharing, division, ratio) | Hardwett 16 " | Letus de sin a d |
| B. Fractions (using objects or | Understand fractions | Introducing the terms |
| drawings) | | numerator & denominator |
| 5. Distinguishes a numerator from a | | |
| denominator | Compare fractions | Identifying & comparing |
| B. Fractions (using objects or | Compare fractions | Identifying & comparing |
| drawings) | | fractions |
| 7. Compares a fraction to 0, ½ or 1 | Equivalance in fractions | Equivalence in fractions |
| B. Fractions (using objects or | Equivalence in fractions | Equivalence in fractions |
| drawings) 8. Verifies whether two fractions | | |
| | | |
| are equivalent | | |

| C. Decimals up to hundredths | Represent decimals in | Representing tenths using |
|-------------------------------------|-----------------------|------------------------------|
| 1. Represents decimals in a variety | different ways | models |
| of ways (using objects or drawings) | | |
| C. Decimals up to hundredths | Read & write decimal | Introducing decimal notation |
| 3. Reads and writes numbers | numbers | Reading & writing decimals |
| written in decimal notation | | |
| C. Decimals up to hundredths | Compare decimals | Comparing & ordering decimal |
| 8. Compares two decimals | | tenths |
| C. Decimals up to hundredths | Approximate decimals | Rounding decimal tenths |
| 9. Approximates (e.g. estimates, | | |
| rounds to a given value, truncates | | |
| decimal places) | | |
| C. Decimals up to hundredths | Match fractions to | Connecting decimal fractions |
| 11. Matches | decimals | to common fractions |
| a. a fraction to its decimal | | |

1.2 Meaning of operations involving numbers

| A. Natural number less than 100 000 2. Uses objects, diagrams or equations to represent a situation and conversely, describes a situation represented by objects, diagrams or equations (use of different meanings of addition and subtraction) a. transformation (adding, taking away), uniting, comparing b. composition of transformations positive, negative | Add & subtract word problems to 10 000 | Solving addition & subtraction word problems |
|--|--|---|
| A. Natural number less than 100 000 3. Uses object, diagrams or equations to represent a situation and conversely, describes a situation represented by objects, diagrams or equations (use of different means of multiplication and division) b. rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes into y, and comparisons (using objects, diagrams or equations) | Use multiplication & repeated addition | Using repeated addition to multiply Connecting multiplication & repeated addition |

| A. Natural number less than 100 000 | Equality in numerical expressions | Comparing numbers using inequality symbols |
|--------------------------------------|-----------------------------------|--|
| 4. Establishes equality relations | · | |
| between numerical expressions | | |
| A. Natural number less than | Relationships between | Linking addition & subtraction |
| 100 000 | operations | The associative property of |
| 5. Determines numerical | | addition |
| equivalences using relationships | | The commutative property of |
| between | | multiplication |
| b. operations (the four operations), | | Linking the 4 operations |
| the commutative property of | | |
| addition and multiplication and the | | |
| associative property | | |

1.3 Operations involving numbers

| Outcome | Quests | Content |
|--|---------------------------------------|--|
| A. Natural numbers 1. Approximates the result of a. an addition or subtraction involving natural numbers b. any of the four operations involving natural numbers | Estimate the result of calculations | Estimating addition of 3-digit numbers Estimating subtraction of 3-digit numbers |
| A. Natural numbers 2. Builds a repertoire of memorized addition and subtraction facts b. Develops various strategies that promote mastery of number facts and relates them to the properties of addition c. Masters all addition facts (0 + 0 to 10 + 10) and the corresponding subtraction facts | Add & subtract within 20 | Addition & subtraction facts within 20 |
| A. Natural numbers 3. Develops processes for mental computation a. Uses his/her own processes to determine the sum or difference of two natural numbers b. Uses his/her own processes to determine the product or quotient of two natural numbers | Add/subtract using 2-digit numbers | Addition: bridging to ten using models Addition: rounding & compensating Subtraction: bridging to ten using models Subtraction: rounding & compensating Add/subtract: bridging to ten using models |
| | | Add/subtract: rounding & compensating |

| A. Natural numbers | Add/subtract using | Adding using a number line |
|--|------------------------------------|---|
| 3. Develops processes for mental | Add/subtract using 3-digit numbers | Adding using a number line |
| computation | 3 digit numbers | Adding using place value Adding using a split strategy |
| a. Uses his/her own processes to | | |
| determine the sum or difference of | | Adding using rounding & compensating |
| two natural numbers | | Subtracting using a number |
| b. Uses his/her own processes to | | line |
| determine the product or quotient | | Subtracting using place value |
| of two natural numbers | | Subtracting using place value Subtracting using rounding & |
| | | compensating |
| | | Mixed addition strategies |
| | | Mixed subtraction strategies |
| | | Mixed addition & subtraction |
| | | strategies |
| A. Natural numbers | Add/subtract using | Addition up two 2-digit |
| 4. Develops processes for written | written strategies | numbers |
| computation (addition and | Ŭ | Subtraction up to 3-digit |
| subtraction) | | numbers |
| b. Uses conventional processes to | | |
| determine the sum of two natural | | |
| numbers of up to four digits | | |
| c. Uses conventional processes to | | |
| determine the difference between | | |
| two natural numbers of up to four | | |
| digits whose result is greater than 0 | | |
| A Natural numbers | | |
| A. Natural numbers | Balance number | Balancing number sentences |
| 5. Determines the missing term in | sentences | Balancing number sentences |
| 5. Determines the missing term in an equation (relationships between | | Balancing number sentences |
| 5. Determines the missing term in an equation (relationships between operations) | sentences | |
| 5. Determines the missing term in an equation (relationships between operations)A. Natural numbers | sentences Multiplication facts to | Exploring multiplication by 2 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized | sentences | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts | sentences Multiplication facts to | Exploring multiplication by 2 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts | Multiplication facts to 10 x 10 | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers | sentences Multiplication facts to | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 Exploring division by 2 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers 6. Builds a repertoire of memorized | Multiplication facts to 10 x 10 | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 Exploring division by 2 Exploring division by 2 Exploring division by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts | Multiplication facts to 10 x 10 | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 Exploring division by 2 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication | Multiplication facts to 10 x 10 | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 Exploring division by 2 Exploring division by 2 Exploring division by 5 |
| 5. Determines the missing term in an equation (relationships between operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts | Multiplication facts to 10 x 10 | Exploring multiplication by 2 Exploring multiplication by 5 Exploring multiplication by 10 Exploring division by 2 Exploring division by 2 Exploring division by 5 |

| objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts | Mixed multiplication & division practice | Multiplying & dividing by 2s, 5s & 10s |
|--|--|--|
| C. Decimals | Add & subtract | Adding decimals to tenths |
| 2. Develops processes for mental | decimals | Subtracting decimals to tenths |
| computation a. adds and subtracts decimals | | Adding & subtracting decimal word problems |

2 Geometry

| Outcome | Quests | Content |
|---|---|---|
| B. Solids 1. Compares objects or parts of objects in the environment with solids | Compare objects with solids | Comparing solid objects |
| B. Solids3. Identifies the main solids | Identify solids | Sorting solid objects |
| B. Solids 4. Identifies and represents the different faces of a prism or pyramid | Identify prisms & pyramids | Identifying properties of prisms & pyramids |
| B. Solids6. Classifies prisms and pyramids | Classify prisms & pyramids | Classifying & sorting prisms & pyramids |
| B. Solids 8. Matches the net of a. a prism to the corresponding prism and vice versa b. a pyramid to the corresponding pyramid and vice versa | Match nets of prisms & pyramids | Matching nets to prisms |
| C. Plane figures 2. Identifies plane figures (square, rectangle, triangle, rhombus and circle) | Identify & sort plane figures | Identifying regular plane figures Identifying regular & irregular plane figures Sorting plane figures |
| C. Plane figures 5. Identifies and constructs parallel lines and perpendicular lines | Identify parallel & perpendicular lines | Identifying parallel lines |
| C. Plane figures 6. Describes quadrilaterals | Describe quadrilaterals | Describing quadrilaterals |
| C. Plane figures 7. Classifies quadrilaterals | Classify quadrilaterals | Sorting & naming quadrilaterals |
| D. Frieze patterns and tessellations 1. Identifies congruent figures | Identify congruent figures | Exploring congruency in plane shapes |
| D. Frieze patterns and tessellations 2. Observes and produces patterns using geometric figures | Patterns with geometric figures | Creating & describing repeating patterns Exploring visual patterns Exploring simple patterns with transformations Manipulating repeating patterns |
| D. Frieze patterns and tessellations 3. Observes and produces frieze patterns and tessellations a. using reflections | Reflections & symmetry | Introducing reflections Recognizing symmetry of shapes |

3 Measurement

| Outcome | Quests | Content |
|--|---------------------------------------|--|
| A. Lengths 4. Estimates and measures the dimensions of an object using | Estimate & measure length | Estimating & measuring to the nearest cm Measuring in m & cm |
| conventional units b. metre, decimetre, centimetre and | | Measuring in half & quarter m/cm |
| millimetre | | Ordering & comparing lengths: m & cm |
| A. Lengths 5. Establishes relationships between units of measure for length a. metre, decimetre, centimetre and millimetre | Relationships between units of length | Converting between m & cm Selecting appropriate units of measure: m & cm |
| B. Surface areas 1. Estimates and measures surface area a. using unconventional units | Estimate & measure surface area | Using unconventional units to measure area Comparing & ordering areas Measuring & estimating areas using a square unit |
| C. Volumes 1. Estimates and measures volumes a. using unconventional units | Estimate & measure volume | Comparing & ordering volumes |
| D. Angles 1. Compares angles | Compare angles | Comparing angles informally |
| E. Capacities 1. Estimates and measures capacity using unconventional units | Compare & order volumes | Comparing & ordering volumes through displacement Estimating, comparing & measuring: cm2 blocks |
| E. Capacities 2. Estimates and measures capacity using conventional units | Estimate & measure capacity | Measuring capacity: litres Measuring capacity: millilitres Estimating, comparing & measuring: litres Selecting appropriate unit of |
| F. Masses 1. Estimates and measures mass using unconventional units | Mass: unconventional units | measure: L & mL Comparing & ordering mass: unconventional units |
| F. Masses 2. Estimates and measures mass using conventional units | Mass: conventional units | Measuring mass: kg |
| G. Time 1. Estimates and measures time using conventional units | Estimate & measure time | Choosing appropriate units to measure time Telling time to five minutes |
| | | (analogue) Telling time to five minutes (digital) |

| G. Time | Relationship between | Recalling relationships |
|--------------------------------|----------------------|----------------------------|
| 2. Establishes relationships | units of time | between units of time |
| between units of measure | | Comparing & ordering time: |
| | | seconds & minutes |
| H. Temperature | Estimate & measure | Introducing thermometers |
| 1. Estimates and measures | temperature | |
| temperature using conventional | | |
| units | | |

4 Statistics

| Outcome | Quests | Content |
|---------------------------------------|------------------------|---------------------------------|
| 1. Formulates questions for a | Formulate questions in | Posing questions for a survey |
| survey (based on age-appropriate | data | |
| topics, students' language level, | | |
| etc) | | |
| 2. Collects, describes and organizes | Collect, describe & | Collecting, describing & |
| data (classifies or categorizes) | organize data | organizing data |
| using tables | | |
| 3. Interprets data using | Interpret data | Using a table |
| b. a table, a bar graph, a pictograph | | Using a pictograph |
| and a broken-line graph | | Using a bar graph |
| | | Constructing a bar graph |
| | | Introducing the statistical |
| | | investigation process |
| | | Conducting a simple statistical |
| | | investigation |

Probability

| Outcome | Quests | Content |
|--|---------------------------------|---|
| When applicable, recognizes variability in possible outcomes (uncertainty) | Use the language of probability | Using the language of probability |
| 2. When applicable, recognizes equiprobability | Recognize equiprobability | Recognizing equiprobability Conducting chance experiments |
| 7. Uses tables or diagrams to collect and display the outcomes of an experiment | Display outcomes in data | Using a table to collect & display outcomes |

Grade 4

1 Arithmetic

1.1 Understanding and writing numbers

| Outcome | Quests | Content |
|--|--|---|
| A. Natural numbers less than 100 000 1. Counts or recites counting rhymes involving natural numbers b. counts forward or backward c. skip counts (e.g. by twos) | Count natural numbers | Counting by 50s to 10 000 Counting by 25s to 10 000 Counting by 20s to 10 000 Counting by 1000s to 10 000 |
| A. Natural numbers less than 100 000 3. Reads and writes any natural number | Read & write numbers to 100 000 | Reading & writing numbers to 100 000 |
| A. Natural numbers less than 100 000 4. Represents natural numbers in different ways or associates a number with a set of objects or drawings b. emphasis on exchanging apparent, non-accessible groupings, using structured materials (e.g. base ten blocks, number tables) c. emphasis on place value in non-apparent, non-accessible groupings, using materials for which groupings are symbolic | Represent numbers to 100 000 | Place value of numbers to 100 000 |
| A. Natural numbers less than 100 000 5. Composes and decomposes a natural number in a variety of ways (e.g. 123 = 100 + 23, 123 = 100 + 20 + 3, 123 = 50 + 50 + 20 + 3, 123 = 2 × 50 + 30 - 7, 123 = 2 × 60 + 3) | Compose & decompose numbers to 100 000 | Composing & decomposing numbers to 100 000 |
| A. Natural numbers less than 100 000 6. Identifies equivalent expressions (e.g. $52 = 40 + 12$, $25 + 27 = 40 + 12$, $52 = 104 \div 2$) | Identify equivalent expressions | Identifying equivalent expressions |

| A. Natural numbers less than 100 000 | Compare numbers to 100 000 | Comparing numbers to 100 000 |
|--|------------------------------|--|
| 7. Compares natural numbers | | |
| A. Natural numbers less than | Order numbers to | Ordering numbers to 100 000 |
| 100 000 | 100 000 | |
| 8. Arranges natural numbers in | | |
| increasing or decreasing order | | |
| A. Natural numbers less than | Understand odd & even | Understanding odd & even |
| 100 000 | numbers | numbers |
| 12. Classifies natural numbers in | | |
| various ways, based on their | | |
| properties (e.g. even numbers, | | |
| composite numbers) | D | D 1: 1 100 000 |
| A. Natural numbers less than | Round numbers to | Rounding numbers to 100 000 |
| 100 000 | 100 000 | |
| 13. Approximates a collection, | | |
| using objects or drawings (e.g. | | |
| estimate, round up/down to a given | | |
| value) B. Fractions (using objects or | Represent fractions | Finding halves, fourths & |
| drawings) | Represent fluctions | eighths |
| 2. Represents a fraction in a variety | | Counting in tenths |
| of ways, based on a whole or a | | Counting in tentis |
| collection of objects | | |
| B. Fractions (using objects or | Match fractions | Finding a unit fraction of a |
| drawings) | Water Hactoris | quantity |
| 3. Matches a fraction to part of a | | |
| whole (congruent or equivalent | | |
| parts) or part of a group of objects, | | |
| and vice versa | | |
| B. Fractions (using objects or | Compare fractions | Comparing fractions using |
| drawings) | | benchmarks |
| 7. Compares a fraction to 0, ½ or 1 | | |
| B. Fractions (using objects or | Equivalence of | Investigating equivalent |
| drawings) | fractions | fractions |
| 8. Verifies whether two fractions | | |
| are equivalent | | |
| B. Fractions (using objects or | Order fractions | Ordering tenths |
| drawings) | | |
| 10. Orders fractions with the same | | |
| denominator | | |
| C. Decimals up to hundredths | Represent decimals | Representing decimals to |
| 1. Represents decimals in a variety | | hundredths |
| of ways (using objects or drawings) | Dand Oit - de disco | Decadio a 0 continue de la continue del |
| C. Decimals up to hundredths | Read & write decimals | Reading & writing hundredths |
| 3. Reads and writes numbers | | |
| written in decimal notation | Compace O docerno | Comparing 9 decorate size |
| C. Decimals up to hundredths | Compose & decompose decimals | Composing & decomposing decimals to hundredths |
| 5. Composes and decomposes a decimal written in decimal notation | uecimuis | decimals to nunareaths |
| decimal writter in decimal notation | | |
| | | |

| C. Decimals up to hundredths | Compare decimals | Comparing decimals |
|--|-----------------------|-----------------------------|
| 8. Compares two decimals | | |
| C. Decimals up to hundredths | Approximate decimals | Rounding decimal hundredths |
| 9. Approximates (e.g. estimates, | | |
| rounds to a given value, truncates | | |
| decimal places) | | |
| C. Decimals up to hundredths | Match fractions to | Connecting decimals & |
| 11. Matches | decimals | fractions |
| a. a fraction to its decimal | | |
| D. Integers | Represent integers in | Representing numbers in |
| 1. Represents integers in a variety | different ways | different ways |
| of ways (using objects or drawings) | | |
| (e.g. tokens in two different colours, | | |
| number line, thermometer, football | | |
| field, elevator, hot air balloon) | | |

1.2 Meaning of operations involving numbers

| Outcome | Quests | Content |
|--|---------------------------------------|--|
| A. Natural number less than 100 000 1. Determines the operation(s) to perform in a given situation | Determine operations to use | One-step word problems |
| A. Natural number less than 100 000 2. Uses objects, diagrams or equations to represent a situation and conversely, describes a situation represented by objects, diagrams or equations (use of different meanings of addition and subtraction) a. transformation (adding, taking away), uniting, comparing b. composition of transformations positive, negative | Solve add & subtract word problems | Solving addition & subtraction problems |
| A. Natural number less than 100 000 3. Uses objects, diagrams or equations to represent a situation and conversely, describes a situation represented by objects, diagrams or equations (use of different means of multiplication and division) b. rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes | Solve multiply & divide word problems | Solving multiplication & division problems |

| into y, and comparisons (using | | |
|--------------------------------------|------------------------|------------------------------|
| objects, diagrams or equations) | | |
| A. Natural number less than | Equality in operations | Equality in addition & |
| 100 000 | | subtraction |
| 5. Determines numerical | | Equality in multiplication & |
| equivalences using relationships | | division |
| between | | |
| b. operations (the four operations), | | |
| the commutative property of | | |
| addition and multiplication and the | | |
| associative property | | |

1.3 Operations involving numbers

| Outcome | Quests | Content |
|---|-------------------------|---------------------------------|
| A. Natural numbers | Estimate results of | Estimating additions & |
| 1. Approximates the result of | calculations | subtractions |
| a. an addition or subtraction | | Estimating by rounding when |
| involving natural numbers | | multiplying |
| b. any of the four operations | | |
| involving natural numbers | | |
| A. Natural numbers | Add & subtract within | Addition & subtraction facts |
| 2. Builds a repertoire of memorized | 20 | within 20 |
| addition and subtraction facts | | Adding using a number line |
| b. Develops various strategies that | | Adding using place value |
| promote mastery of number facts | | Adding using a split strategy |
| and relates them to the properties | | Adding using rounding & |
| of addition | | compensating |
| c. Masters all addition facts (0 + 0 | | Choosing mixed addition |
| to 10 + 10) and the corresponding subtraction facts | | strategies |
| Subtraction facts | | Subtracting using a number line |
| | | Subtracting using place value |
| | | Subtracting using a split |
| | | strategy |
| | | Subtracting using rounding & |
| | | compensating |
| | | Choosing mixed subtraction |
| | | strategies |
| | Multiply/divide: mental | Multiplying using an area |
| | strategies | model |
| | | Multiplying using doubling |
| | | Dividing using halving |
| | | Choosing efficient |
| | | multiplication strategies |
| | | Choosing efficient division |
| | | strategies |

| A. Natural numbers 4. Develops processes for written computation (addition and subtraction) b. Uses conventional processes to determine the sum of two natural numbers of up to four digits c. Uses conventional processes to determine the difference between two natural numbers of up to four | Add/subtract: written strategies | Addition of 3-digit & 1-digit numbers Addition of 3-digit & 2-digit numbers Addition of two 3-digit numbers Addition of two 4-digit numbers Subtraction of up to 4-digit numbers |
|--|--|---|
| A. Natural numbers 5. Determines the missing term in an equation (relationships between | Relationships between operations | Subtraction of two 4-digit numbers with exchange Balance number sentences |
| operations) A. Natural numbers 6. Builds a repertoire of memorized multiplication and division facts a. Builds a memory of multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts, using objects, drawings, charts and tables | Multiplication facts to 10 x 10 | Exploring multiplication by 3 Exploring multiplication by 4 Exploring multiplication by 5 Exploring multiplication by 6 Exploring multiplication by 7 Exploring multiplication by 8 Exploring multiplication by 9 Exploring multiplication by 10 |
| b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts | Division facts within 10 | Exploring division by 3 Exploring division by 4 Exploring division by 5 Exploring division by 6 Exploring division by 7 Exploring division by 8 Exploring division by 9 Exploring division by 10 |
| | Mixed multiplication & division practice | Multiplying & dividing by 2s, 5s & 10s Multiplying & dividing by 2, 5, 3 & 4 |
| A. Natural numbers 14. Adds new terms to a series when the first three terms or more are given | Generate patterns | Generating addition & subtraction patterns Generating non-numerical patterns |
| B. Fractions (using objects or diagrams) Generates a set of equivalent fractions | Generate equivalent fractions | Generating equivalent fractions |
| C. Decimals 2. Develops processes for mental computation a. adds and subtracts decimals | Add & subtract decimals | Adding decimals using models Adding decimals using mental strategies Subtracting decimals using models |

2 Geometry

| Outcome | Quests | Content |
|--------------------------------------|-------------------------|------------------------------|
| A. Space | Introduce the Cartesian | Locating objects on a plane |
| 2. Locates objects in a plane | plane | |
| A. Space | Locate points in a | Locating points in the first |
| 4. Locates points in a Cartesian | Cartesian plane | quadrant |
| plane | | |
| a. in the first quadrant | | |
| b. in all four quadrants | | |
| B. Solids | Compare solids with | Identifying pyramids in the |
| 1. Compares objects or parts of | objects | environment |
| objects in the environment with | | Identifying prisms in the |
| solids | | environment |
| B. Solids | Nets of prisms | Introducing nets of prisms |
| 8. Matches the net of | | |
| a. a prism to the corresponding | | |
| prism and vice versa | | |
| b. a pyramid to the corresponding | | |
| pyramid and vice versa | | |
| D. Frieze patterns and tessellations | Observe patterns | Finding a rule for a shape |
| 2. Observes and produces patterns | | pattern |
| using geometric figures | | |
| D. Frieze patterns and tessellations | Explore reflections | Exploring reflections |
| 3. Observes and produces frieze | | |
| patterns and tessellations | | |
| a. using reflections | | |

3 Measurement

| Outcome | Quests | Content |
|---|--------------------------------------|---|
| A. Lengths | Estimate & measure | Reading lengths |
| 4. Estimates and measures the dimensions of an object using conventional units b. metre, decimetre, centimetre and millimetre | length | Introducing mm |
| A. Lengths 5. Establishes relationships between units of measure for | Relationship between units of length | Comparing cm & mm |
| length | | Ordering lengths in mm & cm |
| a. metre, decimetre, centimetre and millimetre | | Selecting appropriate units of measure: m, cm, mm |
| A. Lengths 6. Calculates the perimeter of plane figures | Calculate perimeter | Calculating the perimeter of plane figures |
| D. Angles 1. Compares angles | Measurement: angles | Comparing angles |
| E. Capacities 2. Estimates and measures capacity using conventional units | Measurement: capacity | Reading & measuring capacity |
| F. Masses 2. Estimates and measures mass using conventional units | Measurement: mass | Estimating & measuring mass |
| G. Time 1. Estimates and measures time | Estimate & measure time | Telling time to the minute (analogue) |
| using conventional units | | Telling time to the minute (digital) |
| G. Time 2. Establishes relationships between units of measure | Relationship between units of time | Converting units of time |
| H. Temperature 1. Estimates and measures temperature using conventional units | Measurement: temperature | Estimating & measuring temperature |

4 Statistics

| Outcome | Quests | Content |
|---------------------------------------|---------------------|------------------------------|
| 2. Collects, describes and organizes | Collect, describe & | Collecting & organizing data |
| data (classifies or categorizes) | organize data | |
| using tables | | |
| 3. Interprets data using | Interpret data | Using a bar graph |
| b. a table, a bar graph, a pictograph | | Using a pictograph |
| and a broken-line graph | | Using tables & bar graphs |
| | | Using a line graph |
| | | Comparing & reading graphs |

Probability

| Outcome | Quests | Content |
|--------------------------------------|-------------------------|-------------------------------|
| 2. When applicable, recognizes | Recognize | Recognizing equiprobability |
| equiprobability | equiprobability in data | |
| 3. When applicable, becomes | Understand | Understanding the |
| aware of the independence of | independence of events | independence of events |
| events in an experiment | | |
| 4. Experiments with activities | Chance experiments | Introducing chance |
| involving chance, using various | | experiments (unequal |
| objects | | outcomes) |
| 5. Predicts qualitatively an outcome | Predict the outcome of | Predicting the outcome of |
| or several events using a | an event | events |
| probability line, among other things | | |
| a. certain, possible or impossible | | |
| outcome | | |
| b. more likely, just as likely, less | | |
| likely event | | |
| 9. Compares qualitatively the | Compare probability of | Describing the probability of |
| theoretical or experimental | events | events occurring |
| probability of events | | |

Grade 5

1 Arithmetic

1.1 Understanding and writing numbers

| Outcome | Quests | Content |
|---|--|--|
| A. Natural numbers less than 1 000 000. 1. Counts or recites counting rhymes involving natural numbers b. counts forward or backward. c. skip counts (e.g. by twos) | Count numbers to 1 000 000 | Counting to 1 000 000 |
| A. Natural numbers less than 1 000 000. 3. Reads and writes any natural number | Read & write numbers to 1 000 000 | Reading & writing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 4. Represents natural numbers in different ways or associates a number with a set of objects or drawings c. emphasis on place value in non-apparent, non-accessible groupings, using materials for which groupings are symbolic | Represent numbers to 1 000 000 | Place value of numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 5. Composes and decomposes a natural number in a variety of ways (e.g. $123 = 100 + 23$, $123 = 100 + 20 + 3$, $123 = 50 + 50 + 20 + 3$, $123 = 2 \times 50 + 30 - 7$, $123 = 2 \times 60 + 3$) | Compose & decompose numbers to 1 000 000 | Composing & decomposing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 6. Identifies equivalent expressions (e.g. 52 = 40 + 12, 25 + 27 = 40 + 12, 52 = 104 ÷ 2) | Identify equivalent expressions | Working with equivalent expressions |
| A. Natural numbers less than 1 000 000. 7. Compares natural numbers | Compare numbers to 1 000 000 | Comparing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 8. Arranges natural numbers in increasing or decreasing order | Order numbers to 1 000 000 | Ordering numbers to 1 000 000 |

| A. Natural numbers less than | Identify properties of | Identifying & describing |
|--|-------------------------|-------------------------------------|
| 1 000 000. 11. Identifies properties | numbers | square numbers |
| of natural numbers a. odd or even | Humbers | square numbers |
| | | |
| numbers. b. square, prime or composite numbers | | |
| | Claratif consultant | Lladanston dia maissa 0 |
| A. Natural numbers less than | Classify numbers to | Understanding prime & |
| 1 000 000. 12. Classifies natural | 1 000 000 | composite numbers |
| numbers in various ways, based on | | |
| their properties (e.g. even numbers, | | |
| composite numbers) | | |
| A. Natural numbers less than | Approximate a | Rounding numbers to |
| 1 000 000. 13. Approximates a | collection to 1 000 000 | 1 000 000 |
| collection, using objects or | | |
| drawings (e.g. estimate, round | | |
| up/down to a given value) | | |
| A. Natural numbers less than | Represent powers of | Introducing square numbers |
| 1 000 000. 14. Represents the | numbers | Introducing cube numbers |
| power of a natural number | | |
| B. Fractions (using objects or | Represent fractions | Representing a fraction in |
| drawings). 2. Represents a fraction | | different ways |
| in a variety of ways, based on a | | |
| whole or a collection of objects | | |
| B. Fractions (using objects or | Read & write fractions | Reading & writing fractions |
| drawings). 6. Reads and writes a | | |
| fraction | | |
| B. Fractions (using objects or | Compare fractions | Comparing fractions using |
| drawings). 7. Compares a fraction | · | benchmarks |
| to 0, ½ or 1 | | |
| B. Fractions (using objects or | Equivalence of | Recognizing equivalent |
| drawings). 8. Verifies whether two | fractions | fractions |
| fractions are equivalent | | |
| B. Fractions (using objects or | Match fractions | Matching decimals & |
| drawings). 9. Matches a decimal or | | percentages to a fraction |
| percentage to a fraction | | |
| B. Fractions (using objects or | Order fractions - same | Ordering fractions with the |
| drawings). 10. Orders fractions with | denominator | same denominator |
| the same denominator | derrorriirator | |
| B. Fractions (using objects or | Order fractions - | Ordering fractions with related |
| drawings). 11. Orders fractions | related denominator | denominators |
| where one denominator is a | related derioninator | denominators |
| multiple of the other(s) | | |
| B. Fractions (using objects or | Order fractions - same | Ordering fractions with the |
| drawings). 12. Orders fractions with | numerator | same numerator |
| the same numerator | Humerutoi | Suffic Huffierator |
| | Locate fractions on a | Locating fractions on a |
| B. Fractions (using objects or | number line | Locating fractions on a number line |
| drawings). 13. Locates fractions on | Humber line | Humber line |
| a number line | Demonstrate 1 1 | Department |
| C. Decimals up to thousandths. 1. | Represent decimals to | Representing decimals to |
| Represents decimals in a variety of | thousandths | thousandths |
| ways (using objects or drawings) | | |

| C. Decimals up to thousandths. 3. Reads and writes numbers written in decimal notation | Read & write decimals to thousandths | Reading & writing numbers to thousandths |
|--|--------------------------------------|---|
| C. Decimals up to thousandths. 5. Composes and decomposes a decimal written in decimal notation | Compose & decompose decimals | Composing & decomposing decimals to thousandths |
| C. Decimals up to thousandths. 6. Recognizes equivalent expressions (e.g. 12 tenths is equivalent to 1 unit and 2 tenths; 0.5 is equivalent to 0.50) | Recognize equivalent expressions | Recognizing equivalent expressions to thousandths |
| C. Decimals up to thousandths. 9. Approximates (e.g. estimates, rounds to a given value, truncates decimal places) | Approximate decimals | Rounding decimals to thousandths |
| C. Decimals up to thousandths. 10. Arranges decimals in increasing or decreasing order | Order decimals | Ordering decimals to thousandths |
| D. Integers. 1. Represents integers in a variety of ways (using objects or drawings) (e.g. tokens in two different colours, number line, thermometer, football field, elevator, hot air balloon) | Represent integers | Representing integers |
| D. Integers. 2. Reads and writes integers | Read & write integers | Reading & writing integers |
| D. Integers. 3. Locates integers on a number line or Cartesian plane | Locate integers | Locating integers on number lines |

1.2 Meaning of operations involving numbers

| Outcome | Quests | Content |
|------------------------------------|----------------------|----------------------------|
| A. Natural number less than | Determine operations | Determining operations for |
| 1 000 000. 1. Determines the | for word problems | word problems |
| operation(s) to perform in a given | | |
| situation | | |

1.3 Operations involving numbers

| Outcome | Quests | Content |
|-------------------------------------|------------------------|----------------------------|
| A. Natural numbers. 1. | Approximate results of | Approximating results when |
| Approximates the result of a. an | all operations | adding & subtracting |
| addition or subtraction involving | | Approximating results when |
| natural numbers. b. any of the four | | multiplying & dividing |

| a a a senti a se a i a colo dia accepta cont | | |
|--|---|--|
| operations involving natural numbers | | |
| A. Natural numbers. 2. Builds a repertoire of memorized addition and subtraction facts b. Develops various strategies that promote mastery of number facts and relates them to the properties of addition. c. Masters all addition facts (0 + 0 to 10 + 10) and the corresponding subtraction facts | Apply addition & subtraction facts to 10 | Applying basic addition & subtraction facts to 10 |
| A. Natural numbers. 3. Develops processes for mental computation a. Uses his/her own processes to determine the sum or difference of two natural numbers. b. Uses his/her own processes to determine the product or quotient of two natural numbers | Use mental strategies to add & subtract Use mental strategies to multiply | Using mental strategies for addition & subtraction Using known facts strategies for multiplication Using doubling strategies for multiplication Using split method for multiplying Using area method for |
| | Use mental strategies to divide | multiplying Using place value strategies for division Using known facts strategies for division Using doubling & halving to divide |
| A. Natural numbers. 4. Develops processes for written computation (addition and subtraction) b. Uses conventional processes to determine the sum of two natural numbers of up to four digits. c. Uses conventional processes to determine the difference between two natural numbers of up to four digits whose result is greater than 0 | Use written methods to add & subtract | Using written methods for addition Using written methods for subtraction |
| A. Natural numbers. 6. Builds a repertoire of memorized multiplication and division facts b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication. c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts | Multiplication & division facts to 10 x 10 | Recalling multiplication by 2 Recalling multiplication by 3 Recalling multiplication by 4 Recalling multiplication by 5 Recalling multiplication by 6 Recalling multiplication by 7 Recalling multiplication by 8 Recalling multiplication by 9 Recalling multiplication by 10 Recalling multiplication by 2 Recalling division by 3 Recalling division by 4 Recalling division by 5 |

| | | Recalling division by 6 |
|--|---------------------------|---------------------------------|
| | | Recalling division by 7 |
| | | Recalling division by 8 |
| | | Recalling division by 9 |
| | | Recalling division by 10 |
| | | Using properties of |
| | | multiplication up to 10 x 10 |
| A. Natural numbers. 7. Develops | Use written methods to | Using written methods for |
| processes for written computation | multiply & divide | multiplication |
| (multiplication and division) b. Uses | | Using written methods for |
| conventional processes to | | division |
| determine the product of a three- | | |
| digit natural number and a two- | | |
| digit natural number c. Uses | | |
| conventional processes to | | |
| determine the quotient of a four- | | |
| digit natural number and a two- | | |
| digit natural number, expresses the | | |
| remainder of a division as a decimal | | |
| that does not go beyond the second | | |
| decimal place | | |
| A. Natural numbers. 8. Determines | Determine missing | Determining missing terms in |
| the missing term in an equation | terms in equations | 1-step equations |
| (relationships between operations): | | |
| $a \times b = \Box$, $a \times \Box = c$, $\Box \times b = c$, $a \div b = c$ | | |
| \Box , $\alpha \div \Box = c$, $\Box \div b = c$ | | |
| A. Natural numbers. 9. Decomposes | Decompose a number | Decomposing a number into |
| a number into prime factors | into prime factors | prime factors |
| A Nestrucia arresta a 10 Calculatos | Calculate accusa of a | Calaulatica tha a access of a |
| A. Natural numbers. 10. Calculates | Calculate power of a | Calculating the power of a |
| the power of a number | number | number |
| A. Natural numbers. 11. Determines | Determine divisibility of | Determining the divisibility of |
| the divisibility of a number by 2, 3, | a number | the number 2 |
| 4, 5, 6, 8, 9, 10 | | Determining the distribution of |
| | | Determining the divisibility of |
| | | the number 3 |
| | | Determining the divisibility of |
| | | the number 4 |
| | | Determining the divisibility of |
| | | the number 5 |
| | | Determining the divisibility of |
| | | the number 6 |
| | | Determining the divisibility of |
| | | the number 8 |
| | | Determining the divisibility of |
| A Northwell average 12 D | Onder of a result | the number 9 |
| A. Natural numbers. 12. Performs a | Order of operations | Order of operations, addition & |
| series of operations in accordance | with whole numbers | subtraction |
| with the order of operations | | Order of operations, |
| | | multiplication & division |

| | 1 | |
|--|--|--------------------------------|
| A. Natural numbers. 14. Adds new | Add new terms to a | Adding new terms to a series |
| terms to a series when the first | series | |
| three terms or more are given | | |
| B. Fractions (using objects or | Generate equivalent | Generating equivalent |
| diagrams). 1. Generates a set of | fractions | fractions |
| equivalent fractions | | |
| B. Fractions (using objects or | Reduce fractions to | Reducing a fraction to its |
| diagrams). 2. Reduces a fraction to | simplest form | simplest form |
| its simplest form (lowest terms) | · | · |
| B. Fractions (using objects or | Generate equivalent | Generating equivalent |
| diagrams). 1. Generates a set of | fractions | fractions |
| equivalent fractions | | |
| B. Fractions (using objects or | Reduce fractions to | Reducing a fraction to its |
| diagrams). 2. Reduces a fraction to | simplest form | simplest form |
| its simplest form (lowest terms) | | S,p. 333 7 5 7 1 1 |
| B. Fractions (using objects or | Add/sub fractions - | Adding fractions with related |
| diagrams). 3. Adds and subtracts | related denominators | denominators |
| fractions when the denominator of | | Subtracting fractions with |
| one fraction is a multiple of the | | related denominators |
| other fraction(s) | | Add & subtract fractions with |
| other naction(s) | | related denominators |
| B. Fractions (using objects or | Multiply a natural | Multiplying a natural number |
| diagrams). 4. Multiplies a natural | number by a fraction | by a fraction |
| number by a fraction | Hamber by a fraction | by a fraction |
| C. Decimals. 1. Approximates the | Estimate - add/subtract | Estimating addition & |
| result of a. an addition or | decimals | subtraction of decimals |
| subtraction. b. a multiplication or | decimals | subtraction of decimals |
| division | | |
| C. Decimals. 2. Develops processes | Strategies to add & | Adding decimals using mental |
| for mental computation a. adds and | subtract decimals | strategies |
| subtracts decimals. b. performs | subtract decimals | Subtracting decimals using |
| operations involving decimals | | mental strategies |
| (multiplication, division by a natural | Ctrataging to multiply 9 | Multiplying decimals using |
| number). c. multiplies and divides | Strategies to multiply & divide decimals | . , . |
| by 10, 100, 1000) | divide decimals | mental strategies |
| by 10, 100, 1000) | | Dividing decimals using |
| | Adultin burden de la la | mental strategies |
| | Multiply decimals by | Multiplying decimals by 10, |
| | 10, 100 & 1000 | 100 & 1000 |
| | Divide decimals by 10, | Dividing decimals by 10, 100 & |
| | 100 & 1000 | 1000 |
| C. Decimals. 3. Develops processes | Multiply decimals to | Multiplying decimals to |
| for written computation a. adds and | hundredths - formal | hundredths - formal |
| subtracts decimals whose result | Divide decimals to | Dividing decimals to |
| does not go beyond the second | hundredths - formal | hundredths - formal |
| decimal place. b. multiplies | | |
| decimals whose product does not | | |
| go beyond the second decimal | | |
| place. c. divides a decimal by a | | |
| natural number less than 11 | | |

| D. Using numbers. 1. Expresses a decimal as a fraction, and vice versa | Express decimals as fractions | Expressing a decimal as a fraction |
|---|----------------------------------|--------------------------------------|
| D. Using numbers. 2. Expresses a decimal as a percentage, and vice versa | Express decimals as percentages | Expressing a decimal as a percentage |
| D. Using numbers. 3. Expresses a fraction as a percentage, and vice versa | Express fractions as percentages | Expressing fractions as percentages |

2 Geometry

2.1 Geometry

| Outcome | Quests | Content |
|--|---|---|
| A. Space. 3. Locates objects on an axis (based on the types of numbers studied) | Locate objects on an axis | Locating objects on an axis |
| A. Space. 4. Locates points in a Cartesian plane b. in all four quadrants | Locate points in a Cartesian plane | Locating points in a Cartesian plane - 4 quadrants |
| B. Solids. 5. Describes prisms and pyramids in terms of faces, vertices and edges | Investigate prisms & pyramids | Investigating properties of prisms & pyramids |
| B. Solids. 6. Classifies prisms and pyramids | Compare & describe prisms & pyramids | Comparing, describing & naming prisms & pyramids |
| B. Solids. 7. Constructs a net of a prism or pyramid | Connect prisms & pyramids with nets | Connecting prisms & pyramids with nets |
| B. Solids. 8. Matches the net of c. a convex polyhedron to the corresponding convex polyhedron | Nets of convex polyhedrons | Matching nets of convex polyhedrons to objects |
| C. Plane figures. 5. Identifies and constructs parallel lines and perpendicular lines | Identify parallel & perpendicular lines | Identify parallel/perpendicular lines - 2D figures |
| C. Plane figures. 7. Classifies quadrilaterals | Classify quadrilaterals | Classifying quadrilaterals |
| C. Plane figures. 9. Classifies triangles | Classify triangles | Classifying triangles |
| C. Plane figures. 10. Describes circles | Describe circles | Describing circles |
| D. Frieze patterns and tessellations.3. Observes and produces frieze patterns and tessellations a. using reflections. b. using translations | Frieze patterns & tessellations | Recognizing tessellations |

3 Measurement

3.1 Measurement

| Outcome | Quests | Content |
|--|-------------------------------------|--------------------------------|
| A. Lengths. 4. Estimates and | Measure length (m, cm, | Introducing the kilometre |
| measures the dimensions of an | mm & km) | Selecting appropriate units of |
| object using conventional units c. | | length |
| metre, decimetre, centimetre, | | |
| millimetre and kilometre | | |
| A. Lengths. 5. Establishes | Relationship in length | Comparing and ordering |
| relationships between units of | (m, cm, mm & km) | lengths |
| measure for length b. metre, decimetre, centimetre, millimetre | | |
| and kilometre | | |
| A. Lengths. 6. Calculates the | Calculate perimeter | Calculate perimeter of |
| perimeter of plane figures | Calculate perimeter | polygons & composite shapes |
| B. Surface areas. 1. Estimates and | Estimate & measure | Using formal units for area - |
| measures surface area b. using | area | square cm & square m |
| conventional units | ar ou | Estimating & measuring area |
| | | of rectangles |
| | | Estimate & compare areas of |
| | | non-rectilinear shapes |
| C. Volumes. 1. Estimates and | Estimate & measure | Estimating & measuring |
| measures volumes b. using | volume | volume |
| conventional units | | |
| D. Angles. 1. Compares angles | Compare angles | Comparing angles |
| D. Angles. 2. Estimates and | Estimate & measure | Estimating & measuring |
| determines the degree | angles | angles |
| measurement of angles | - · · · · | |
| E. Capacities. 2. Estimates and | Estimate & measure | Estimate & measure capacity - |
| measures capacity using | capacity | conventional units |
| conventional units | Deletie seleje bet oe ee | Deletieneline het vers with te |
| E. Capacities. 3. Estimates | Relationship between capacity units | Relationships between units to |
| relationships between units of measure | capacity units | measure capacity |
| F. Masses, 2. Estimates and | Estimate & measure | Estimate & measure mass |
| measures mass using conventional | mass | using conventional units |
| units | 111455 | doing conventional artic |
| F. Masses. 3. Establishes | Relationship between | Relationships between units to |
| relationships between units of | mass units | measure mass |
| measure | | |
| G. Time. 1. Estimates and measures | Estimate & measure | Estimating & measuring time |
| time using conventional units | time | |
| G. Time. 2. Establishes relationships | Convert between units | Converting between units of |
| between units of measure | of time | time |

| H. Temperature. 1. Estimates and | Estimate & measure | Estimating & measuring |
|----------------------------------|--------------------|------------------------|
| measures temperature using | temperature | temperature |
| conventional units | | |

4 Statistics

4.1 Statistics

| Outcome | Quests | Content |
|--|------------------------|--------------------------------|
| 3. Interprets data using c. a table, a | Interpret data | Interpreting data using tables |
| bar graph, a pictograph, a broken- | | Interpreting data using bar |
| line graph and a circle graph | | graphs |
| | | Interpreting data using |
| | | broken-line graphs |
| | | Interpreting data using circle |
| | | graphs |
| 5. Understands and calculates the | Understand & calculate | Understanding & calculating |
| arithmetic mean | arithmetic mean | arithmetic mean |

Probability

5.1 Probability

| Outcome | Quests | Content |
|---|--|--|
| When applicable, recognizes variability in possible outcomes (uncertainty) | Recognize variability | Recognizing variability in possible outcomes |
| 2. When applicable, recognizes equiprobability | Recognize equiprobability | Recognizing equiprobability |
| 5. Predicts qualitatively an outcome or several events using a probability line, among other things. a. certain, possible or impossible outcome b. more likely, just as likely, less likely event | Predict an outcome | Predicting an outcome |
| 8. Enumerates possible outcomes of b. a random experiment, using tables, a tree diagram | Possible outcomes of random experiment | Listing possible outcomes - tables & tree diagrams |
| 10. Recognizes that a probability is always between 0 and 1 | Recognize probability is between 0 & 1 | Recognizing probability is between 0 & 1 |
| 11. Uses fractions, decimals or percentages to quantify a probability | Use fractions, decimals or percentages | Using fractions, decimals or percentages |
| 12. Compares the outcomes of a random experiment with known theoretical probabilities | Compare outcomes/theoretical probability | Comparing outcomes with theoretical probabilities |
| 13. Simulates random experiments with or without the use of technology | Conduct random experiments (technology) | Conducting random experiments using technology |

Grade 6

1 Arithmetic

1.1 Understanding and writing numbers

| Outcome | Quests | Content |
|--|---|--|
| A. Natural numbers less than 1 000 000. 1. Counts or recites counting rhymes involving natural numbers b. counts forward or backward. c. skip counts (e.g. by twos) | Count numbers to 1 000 000 | Counting to 1 000 000 |
| A. Natural numbers less than 1 000 000. 3. Reads and writes any natural number | Read & write numbers to 1 000 000 | Reading & writing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 4. Represents natural numbers in different ways or associates a number with a set of objects or drawings c. emphasis on place value in non-apparent, non- accessible groupings, using materials for which groupings are symbolic | Represent numbers to 1 000 000 | Place value of numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 5. Composes and decomposes a natural number in a variety of ways (e.g. $123 = 100 + 23, 123 = 100 + 20 + 3, 123 = 50 + 50 + 20 + 3, 123 = 2 \times 50 + 30 - 7, 123 = 2 \times 60 + 3)$ | Compose/decompose numbers to 1 000 000 | Composing & decomposing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 6. Identifies equivalent expressions (e.g. $52 = 40 + 12$, $25 + 27 = 40 + 12$, $52 = 104 \div 2$) | Identify equivalent expressions | Identifying equivalent expressions |
| A. Natural numbers less than 1 000 000. 7. Compares natural numbers | Compare numbers to 1 000 000 | Comparing numbers to 1 000 000 |
| A. Natural numbers less than 1 000 000. 8. Arranges natural numbers in increasing or decreasing order | Order numbers to 1 000 000 | Ordering numbers to 1 000 000 |

| A Natural numbers less than | Classify numbers by | Understanding prime 0 |
|---|----------------------------------|------------------------------------|
| A. Natural numbers less than 1 000 000. 12. Classifies natural | Classify numbers by | Understanding prime & |
| | properties | composite numbers |
| numbers in various ways, based on | | |
| their properties (e.g. even numbers, | | |
| composite numbers) | | D !! . |
| A. Natural numbers less than | Approximate a | Rounding numbers to |
| 1 000 000. 13. Approximates a | collection to 1 000 000 | 1 000 000 |
| collection, using objects or | | |
| drawings (e.g. estimate, round | | |
| up/down to a given value) | - | |
| B. Fractions (using objects or | Represent fractions | Representing a fraction in |
| drawings). 2. Represents a fraction | | different ways |
| in a variety of ways, based on a | | |
| whole or a collection of objects | | |
| B. Fractions (using objects or | Understand meaning of | Identifying fractions as |
| drawings). 4. Identifies the different | fractions | division |
| meanings of fractions (sharing, | | |
| division, ratio) | | |
| B. Fractions (using objects or | Recognize equivalent | Recognizing equivalent |
| drawings). 8. Verifies whether two | fractions | fractions |
| fractions are equivalent | | |
| B. Fractions (using objects or | Matching decimals | Matching decimals & |
| drawings). 9. Matches a decimal or | | percentages to a fraction |
| percentage to a fraction | | |
| B. Fractions (using objects or | Order fractions: related | Ordering fractions with related |
| drawings). 11. Orders fractions | denominators | denominators |
| where one denominator is a | | |
| multiple of the other(s) | | |
| B. Fractions (using objects or | Order fractions: same | Ordering fractions with the |
| drawings). 12. Orders fractions with | numerator | same numerator |
| the same numerator | | |
| C. Decimals up to thousandths. 3. | Read & write decimals | Reading & writing numbers to |
| Reads and writes numbers written | to thousandths | thousandths |
| in decimal notation | | |
| C. Decimals up to thousandths. 5. | Compose/decompose | Composing & decomposing |
| Composes and decomposes a | decimals | decimals to thousandths |
| decimal written in decimal notation | Gominaio | desirials to tribusuriatiis |
| C. Decimals up to thousandths. 6. | Recognize equivalent | Recognizing equivalent |
| Recognizes equivalent expressions | expressions | expressions to thousandths |
| (e.g. 12 tenths is equivalent to 1 | CAPICSSIONS | expressions to thousunding |
| unit and 2 tenths; 0.5 is equivalent | | |
| to 0.50) | | |
| , | Locate decimals on a | Locating desimals as a |
| C. Decimals up to thousandths. 7. Locates decimals on a number line | Locate decimals on a number line | Locating decimals on a number line |
| | Humber line | Humber line |
| a. between two consecutive natural | | |
| numbers. b. between two decimals | A | Decoration and a sign 1. 1 |
| C. Decimals up to thousandths. 9. | Approximate decimals | Rounding decimals to |
| Approximates (e.g. estimates, | | thousandths |
| rounds to a given value, truncates | | |
| decimal places) | | |

| C. Decimals up to thousandths. 10. | Order decimals to | Ordering decimals to |
|--|-----------------------|----------------------------|
| Arranges decimals in increasing or | thousandths | thousandths |
| decreasing order | | |
| C. Decimals up to thousandths. 11. | Match decimals | Relationship - decimals, |
| Matches. a. a fraction to its decimal. | | fractions & percentages |
| b. a fraction or percentage to its | | |
| decimal | | |
| D. Integers. 1. Represents integers | Represent integers | Representing integers |
| in a variety of ways (using objects | | |
| or drawings) (e.g. tokens in two | | |
| different colours, number line, | | |
| thermometer, football field, | | |
| elevator, hot air balloon) | | |
| D. Integers. 2. Reads and writes | Read & write integers | Reading & writing integers |
| integers | | |

1.2 Meaning of operations involving numbers

| Outcome | Quests | Content |
|------------------------------------|-----------------------|-------------------------------|
| A. Natural number less than | Determine operations | Determining operations to use |
| 1 000 000. 1. Determines the | to use | in a word problem |
| operation(s) to perform in a given | | |
| situation | | |
| A. Natural number less than | Equality between | Establishing equality between |
| 1 000 000. 4. Establishes equality | numerical expressions | expressions |
| relations between numerical | | |
| expressions | | |

1.3 Operations involving numbers

| Outcome | Quests | Content |
|-------------------------------------|-------------------------|-----------------------------|
| A. Natural numbers. 1. | Approximate results of | Approximating results when |
| Approximates the result of a. an | all operations | adding & subtracting |
| addition or subtraction involving | | Approximating results when |
| natural numbers. b. any of the four | | multiplying & dividing |
| operations involving natural | | |
| numbers | | |
| A. Natural numbers. 3. Develops | Mental strategies - add | Using mental strategies for |
| processes for mental computation | & subtract | addition & subtraction |
| a. Uses his/her own processes to | Mental strategies - | Using mental computation |
| determine the sum or difference of | multiply & divide | strategies to multiply |
| two natural numbers. b. Uses | | Using mental computation |
| his/her own processes to determine | | strategies to divide |
| the product or quotient of two | | |
| natural numbers | | |

| A. Natural numbers. 4. Develops processes for written computation (addition and subtraction) b. Uses conventional processes to determine the sum of two natural numbers of up to four digits. c. Uses conventional processes to determine the difference between two natural numbers of up to four digits whose result is greater than 0 | Solve word problems - add & subtract | Solving word problems - addition & subtraction |
|--|--|--|
| A. Natural numbers. 6. Builds a repertoire of memorized multiplication and division facts b. Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication. c. Masters all multiplication facts (0 x 0 to 10 x 10) and the corresponding division facts | Use multiplication facts to 10 x 10 | Mastering multiplication facts to 10 x 10 |
| A. Natural numbers. 7. Develops processes for written computation (multiplication and division) b. Uses conventional processes to determine the product of a three-digit natural number and a two-digit natural number c. Uses conventional processes to determine the quotient of a four-digit natural number and a two-digit natural number, expresses the remainder of a division as a decimal that does not go beyond the second decimal place | Use written methods - multiply & divide | Using written methods for multiplication Using written methods for division |
| A. Natural numbers. 8. Determines the missing term in an equation (relationships between operations): $a \times b = \Box$, $a \times \Box = c$, $\Box \times b = c$, $a \div b = \Box$, $a \div \Box = c$, $\Box \div b = c$ | Determine missing terms in equations | Determining missing terms in 1-step equations |
| A. Natural numbers. 9. Decomposes a number into prime factors | Decompose a number into prime factors | Decomposing a number into prime factors |
| A. Natural numbers. 10. Calculates the power of a number | Calculate power of a number | Calculating the power of a number |
| A. Natural numbers. 11. Determines the divisibility of a number by 2, 3, 4, 5, 6, 8, 9, 10 | Determine divisibility of a number | Determining the divisibility of the number 2 Determining the divisibility of the number 3 Determining the divisibility of the number 4 |
| | | Determining the divisibility of the number 5 |

| | | <u>, </u> |
|---|---------------------------------|--|
| | | Determining the divisibility of the number 6 |
| | | Determining the divisibility of |
| | | the number 8 |
| | | Determining the divisibility of |
| | | the number 9 |
| A. Natural numbers. 12. Performs a | Order of operations | Order of operations, 4 |
| series of operations in accordance | with whole numbers | operations |
| with the order of operations | | Order of operations, grouping |
| | | symbols |
| | | Applying order of operations |
| | | to real-life contexts |
| A. Natural numbers. 14. Adds new | Add new terms to a | Adding new terms when |
| terms to a series when the first | series | adding & subtracting |
| three terms or more are given | | Adding new terms when |
| | | multiplying & dividing |
| B. Fractions (using objects or | Generate equivalent | Generating equivalent |
| diagrams). 1. Generates a set of | fractions | fractions |
| equivalent fractions | | |
| B. Fractions (using objects or | Reduce fractions to | Reducing fractions to their |
| diagrams). 2. Reduces a fraction to | simplest form | simplest form |
| its simplest form (lowest terms) | | |
| B. Fractions (using objects or | Work with fractions | Adding fractions with related |
| diagrams). 3. Adds and subtracts | related denominators | denominators |
| fractions when the denominator of | | Subtracting fractions with |
| one fraction is a multiple of the | | related denominators |
| other fraction(s) | | Add & subtract fractions with |
| D. 5 | NA 10: 1 | related denominators |
| B. Fractions (using objects or | Multiply natural | Multiplying natural numbers |
| diagrams). 4. Multiplies a natural | numbers by fractions | by fractions |
| number by a fraction | Montal atrataging with | Adding desimals using montal |
| C. Decimals. 2. Develops processes for mental computation a. adds and | Mental strategies with decimals | Adding decimals using mental |
| subtracts decimals. b. performs | decimais | strategies |
| operations involving decimals | | Subtracting decimals using mental strategies |
| (multiplication, division by a natural | | Multiplying decimals using |
| number). c. multiplies and divides | | mental strategies |
| by 10, 100, 1000) | | Dividing decimals using |
| , 20, 200, | | mental strategies |
| | | Multiplying decimals by 10, |
| | | 100 & 1000 |
| | | Dividing decimals by 10, 100 & |
| | | 1000 |
| C. Decimals. 3. Develops processes | Written strategies with | Multiplying decimals - written |
| for written computation a. adds and | decimals | strategy |
| subtracts decimals whose result | | Dividing decimals - written |
| does not go beyond the second | | strategy |
| decimal place. b. multiplies | | |
| decimals whose product does not | | |
| go beyond the second decimal | | |

| place. c. divides a decimal by a natural number less than 11 | | |
|--|------------------------|-------------------------|
| D. Using Numbers. 1. Expresses a | Express decimals as | Expressing decimals as |
| decimal as a fraction, and vice | fractions | fractions |
| versa | | |
| D. Using Numbers. 2. Expresses a | Express decimals as | Expressing decimals as |
| decimal as a percentage, and vice | percentages | percentages |
| versa | | |
| D. Using Numbers. 3. Expresses a | Express fractions as a | Expressing fractions as |
| fraction as a percentage, and vice | percentage | percentages |
| versa | | |

2 Geometry

2.1 Geometry

| Outcome | Quests | Content |
|--|--|--|
| A. Space. 3. Locates objects on an axis (based on the types of numbers studied) | Locate objects on an axis | Locating objects on an axis |
| A. Space. 4. Locates points in a Cartesian plane b. in all four quadrants | Locate points in a Cartesian plane | Locating points in a Cartesian plane - 4 quadrants |
| B. Solids. 5. Describes prisms and pyramids in terms of faces, vertices and edges | Investigate properties prisms & pyramids | Investigating properties of prisms & pyramids |
| B. Solids. 6. Classifies prisms and pyramids | Compare & describe prisms & pyramids | Comparing, describing & naming prisms & pyramids |
| B. Solids. 7. Constructs a net of a prism or pyramid | Connect prisms & pyramids with nets | Connecting prisms & pyramids with nets |
| B. Solids. 8. Matches the net of c. a convex polyhedron to the corresponding convex polyhedron | Nets of convex polyhedrons | Matching nets of convex polyhedrons to objects |
| C. Plane figures. 5. Identifies and constructs parallel lines and perpendicular lines | Identify parallel & perpendicular lines | Identifying parallel & perpendicular lines |
| C. Plane figures. 7. Classifies quadrilaterals | Classify quadrilaterals | Classifying quadrilaterals |
| C. Plane figures. 9. Classifies triangles | Classify triangles | Classifying triangles |
| C. Plane figures. 10. Describes circles | Describe circles | Describing circles |
| D. Frieze patterns and tessellations. 3. Observes and produces frieze patterns and tessellations a. using reflections. b. using translations | Frieze patterns & tessellations | Recognizing & creating tessellations |

3 Measurement

3.1 Measurement

| Outcome | Quests | Content |
|---|--|---|
| A. Lengths. 4. Estimates and measures the dimensions of an | Measure length (m, cm, mm & km) | Estimating & measuring length Recording lengths - mixed |
| object using conventional units c. metre, decimetre, centimetre, millimetre and kilometre | | units & decimal notation |
| A. Lengths. 5. Establishes relationships between units of | Relationship in length (m, cm, mm & km) | Converting between units of length |
| measure for length b. metre, decimetre, centimetre, millimetre and kilometre | | |
| B. Surface areas. 1. Estimates and measures surface area b. using conventional units | Work with formula for area | Working with multiplicative formula for area |
| C. Volumes. 1. Estimates and measures volumes b. using conventional units | Estimate & measure volume | Estimating & measuring volume |
| D. Angles. 1. Compares angles | Compare angles | Comparing angles |
| D. Angles. 2. Estimates and determines the degree measurement of angles | Estimate & measure angles | Estimating & measuring angles |
| E. Capacities. 2. Estimates and measures capacity using conventional units | Estimate & measure capacity | Estimate & measure capacity - conventional units |
| E. Capacities. 3. Estimates relationships between units of measure | Relationship between capacity units | Relationships between units to measure capacity |
| F. Masses. 2. Estimates and | Estimate, measure & | Estimate & measure mass |
| measures mass using conventional units | understand mass | using conventional units |
| F. Masses. 3. Establishes | Relationship between | Relationships between units to |
| relationships between units of measure | mass units | measure mass |
| G. Time. 2. Establishes relationships between units of measure | Convert between units of time | Converting between units of time |
| | | Understanding 24-hour time |
| H. Temperature. 1. Estimates and measures temperature using conventional units | Estimate & measure temperature | Estimating & measuring temperature |

4 Statistics

4.1 Statistics

| Outcome | Quests | Content |
|--|----------------------|--------------------------------|
| 3. Interprets data using c. a table, a | Interpret data | Interpreting data using tables |
| bar graph, a pictograph, a broken- | | Interpreting data using bar |
| line graph and a circle graph | | graphs |
| | | Interpreting data using |
| | | broken-line graphs |
| | | Interpreting data using circle |
| | | graphs |
| 5. Understands and calculates the | Calculate arithmetic | Calculating arithmetic mean |
| arithmetic mean | mean | |

Probability

5.1 Probability

| Outcome | Quests | Content |
|---|--|--|
| When applicable, recognizes variability in possible outcomes (uncertainty) | Recognize variability | Recognizing variability in possible outcomes |
| 2. When applicable, recognizes equiprobability | Recognize equiprobability | Recognizing equiprobability |
| 5. Predicts qualitatively an outcome or several events using a probability line, among other things. a. certain, possible or impossible outcome b. more likely, just as likely, less likely event | Predict an outcome | Predicting an outcome |
| 8. Enumerates possible outcomes of b. a random experiment, using tables, a tree diagram | Possible outcomes of random experiment | Listing possible outcomes - tables & tree diagrams |
| 10. Recognizes that a probability is always between 0 and 1 | Recognize probability is between 0 & 1 | Recognizing probability is between 0 & 1 |
| 11. Uses fractions, decimals or percentages to quantify a probability | Use fractions, decimals or percentages | Using fractions, decimals or percentages |
| 12. Compares the outcomes of a random experiment with known theoretical probabilities | Compare outcomes/theoretical probability | Comparing outcomes with theoretical probabilities |
| 13. Simulates random experiments with or without the use of technology | Conduct random experiments (technology) | Conducting random experiments using technology |



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