## mathology

## Mathology Grade 3 Correlation (Number) - Alberta

*Materials referenced from other grades can be found in mathology.ca*

## Organizing Idea:

Quantity is measured with numbers that enable counting, labelling, comparing, and operating.

| Guiding Question: How can place value support organization of number? Learning Outcome: Students interpret place value within 100000. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| For numbers in base-10, each place has 10 times the value of the place to its right. <br> The digits 0 to 9 indicate the number of groups in each place in a number. | Place value is the basis for the base10 system. <br> Place value determines the value of a digit based on its place in a number, relative to the ones place. | Identify the place value of each digit in a natural number. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Numbers to 10000 <br> Grade 5 Number Unit 1: Number Relationships <br> and Place Value <br> 1: Representing Larger Numbers <br> (Part A addresses numbers to 100 000. Omit Part B as numbers go beyond 100000 .) | How Numbers Work |
| The value of each place in a number is the product of the digit and its place value. <br> Numbers can be composed in | Place value is used to read, write, and compare numbers. | Relate the values of adjacent places. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Numbers to 10000 <br> Grade 5 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Larger Numbers | Finding Buster How Numbers Work |

various ways using place value.

Numbers can be rounded in contexts where an exact count is not needed.

The less than sign, <, and the greater than sign, $>$, are used to show the relationship between two unequal numbers.

A zero in the leftmost place of a natural number does not change the value of the number.

The dollar sign, $\$$, is placed to the left of the dollar value in English and to the right of the dollar value in French.

The cent sign, c , is placed to the right of the cent value in English and in French.

|  | (Part A addresses numbers to 100 000. Omit Part B as numbers go beyond 100000 .) |  |
| :---: | :---: | :---: |
| Determine the value of each digit in a natural number. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Numbers to 10000 <br> Grade 5 Number Unit 1: Number Relationships <br> and Place Value <br> 1: Representing Larger Numbers <br> (Part A addresses numbers to 100 000. Omit Part B as numbers go beyond 100 000.) | How Numbers Work |
| Express natural numbers using words and numerals. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Numbers to 10000 <br> Grade 5 Number Unit 1: Number Relationships and Place Value <br> 1: Representing Larger Numbers <br> (Part A addresses numbers to 100 000. Omit Part B as numbers go beyond 100000 .) |  |
| Express various compositions of a natural number using place value. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 2: Composing and Decomposing Larger Numbers (to 10 000) <br> (Currently to 10 000; include numbers to 100000. Edit Practice line master to include numbers to 100 000.) | Finding Buster Fantastic Journeys |
| Round natural numbers to various places. | New Lesson to Come: Rounding Numbers |  |
| Compare and order natural numbers. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value | Fantastic Journeys <br> Finding Buster <br> Math Makes Me Laugh |

Pearson

|  |  |  | 4: Comparing and Ordering Numbers (to 10 000) (Currently to 10000 ; include numbers to 100000. Edit Practice line master to include numbers to 100 000.) | The Street Party |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Express the relationship between two numbers using $<$, $>$, or $=$. | Link to other grades: <br> Grade 4 Number Unit 1: Number Relationships and Place Value <br> 4: Comparing and Ordering Numbers (to 10 000) (Currently to 10000 ; include numbers to 100000. Edit Practice line master to include numbers to 100 000.$)$ |  |
|  |  | Count and represent the value of a collection of nickels, dimes, and quarters as cents. | Number Unit 7: Financial Literacy 34: Estimating and Counting Money |  |
|  |  | Count and represent the value of a collection of loonies, toonies, and bills as dollars. | Number Unit 7: Financial Literacy <br> 34: Estimating and Counting Money (Currently addresses English symbolic representation of monetary values. Include French symbolic representation where the dollar sign is placed to the right of the dollar value.) |  |
|  |  | Recognize French and English symbolic representations of monetary values. | Number Unit 7: Financial Literacy <br> 34: Estimating and Counting Money (Currently addresses English symbolic representation of monetary values. Include French symbolic representation where the dollar sign is placed to the right of the dollar value.) |  |

Guiding Question: How can processes be established for addition and subtraction?
Learning Outcome: Students apply strategies for addition and subtraction within 1000.

| Knowledge | Understanding |  <br> Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| Recall of addition and subtraction number facts facilitates addition and subtraction strategies. <br> Standard algorithms for addition and subtraction are conventional procedures based on place value. <br> Estimation can be used to support addition and subtraction in everyday situations, including <br> - when an exact sum or difference is not needed <br> - to check if an answer is reasonable | Addition and subtraction strategies can be chosen based on the nature of the numbers. <br> Standard algorithms for addition and subtraction may be used for any natural numbers. | Relate strategies for the addition and subtraction of two-digit numbers to strategies for the addition and subtraction of three-digit numbers. | Number Unit 5: Addition and Subtraction 19: Modeling Addition and Subtraction 22: Using Mental Math to Add and Subtract | Math Makes Me Laugh Planting Seeds The Street Party |
|  |  | Model regrouping by place value for addition and subtraction. | Number Unit 5: Addition and Subtraction 19: Modeling Addition and Subtraction |  |
|  |  | Explain the <br> standard <br> algorithms for addition and subtraction of natural numbers. | Number Unit 5: Addition and Subtraction 19: Modeling Addition and Subtraction | Math Makes Me Laugh The Street Party |
|  |  | Add and subtract natural numbers using standard algorithms. | Number Unit 5: Addition and Subtraction 19: Modeling Addition and Subtraction | Math Makes Me Laugh |
|  |  | Estimate sums and differences. | Number Unit 5: Addition and Subtraction <br> 20: Estimating Sum and Differences <br> 22: Using Mental Math to Add and Subtract | Calla's Jingle Dress |
|  |  | Solve problems using addition and subtraction. | Number Unit 5: Addition and Subtraction <br> 24: Creating and Solving Problems <br> 25: Creating and Solving Problems with Larger Numbers <br> 26: Consolidation | Calla's Jingle Dress |


| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| Multiplication and division are inverse mathematical operations. <br> Multiplication is repeated addition. <br> Multiplication can be interpreted in various ways according to context, such as <br> - equal groups <br> - an array <br> - an area <br> Division can be interpreted in various ways according to context, such as <br> - equal sharing <br> - equal grouping <br> - repeated subtraction <br> The order in which two quantities are multiplied does not affect the product (commutative property). <br> The order in which | Quantities can be composed and decomposed through multiplication and division. | Compose a product using equal groups of objects. | Number Unit 6: Multiplication and Division 27: Exploring Multiplication | Planting Seeds <br> Sports Camp <br> Calla’s Jingle Dress <br> Link to other grades: (Grade 2) <br> Array's Bakery <br> Marbles, Alleys, Mibs, and Guli! |
|  |  | Relate multiplication to repeated addition. | Number Unit 6: Multiplication and Division <br> 27: Exploring Multiplication <br> Link to other grades: <br> Grade 2 Number Cluster 8: Early Multiplicative <br> Thinking <br> 40: Exploring Repeated Addition <br> 41: Repeated Addition and Multiplication <br> 42: Consolidation | Calla's Jingle Dress Planting Seeds Sports Camp |
|  |  | Relate multiplication to skip counting. | Number Unit 6: Multiplication and Division <br> 27: Exploring Multiplication <br> Link to other grades: <br> Grade 2 Number Cluster 8: Early Multiplicative <br> Thinking <br> 40: Exploring Repeated Addition <br> 41: Repeated Addition and Multiplication <br> 42: Consolidation | Planting Seeds <br> Link to other grades: (Grade 2) <br> Calla's Jingle Dress <br> Array's Bakery <br> Marbles, Alleys, Mibs, and Guli! |
|  |  | Investigate multiplication by 0 . | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication and Division Facts <br> 24: Strategies for Multiplication <br> (Explore what happens when a number is multiplied by 1 and by 0.$)$ |  |
|  |  | Model a quotient by partitioning a | Number Unit 6: Multiplication and Division 28: Exploring Division | Sports Camp |

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| two numbers are divided affects the quotient. <br> Multiplication or division by 1 results in the same number (identity property). |  | quantity into equal groups or groups of a certain size, with or without remainders. |  | Link to other grades: (Grade 2) Marbles, Alleys, Mibs, and Guli! |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Visualize and model products and quotients as arrays. | Number Unit 6: Multiplication and Division <br> 28: Exploring Division <br> New Lesson to Come: Multiplying and Dividing Larger Numbers <br> Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication and Division Facts <br> 26: Relating Multiplication and Division | Link to other grades: (Grade 2) Array's Bakery |
|  |  | Recognize interpretations of multiplication and division in various contexts. | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication and Division Facts <br> 25: Solving Multiplication Problems (Include division word problems as well; discuss situations when multiplication and division would be used in real life.) |  |
| Numbers can be multiplied or divided in parts (distributive property). <br> Multiplication strategies include <br> - repeated addition <br> - multiplying in parts <br> - compensation <br> Division strategies include | Sharing and grouping situations can be interpreted as multiplication or division. <br> Multiplication and division strategies can be supported by addition and subtraction. | Investigate multiplication and division strategies. | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication and Division Facts <br> 24: Strategies for Multiplication <br> 26: Relating Multiplication and Division <br> 27: Strategies for Division <br> Grade 2 Number Cluster 8: <br> Early Multiplicative Thinking <br> 41: Repeated Addition and Multiplication <br> New Lesson to Come: Repeated Subtraction and Division | Sports Camp |
|  |  | Multiply and divide within 100. | Number Unit 6: Multiplication and Division <br> New Lesson to Come: Multiplying and Dividing Larger Numbers <br> 32: Building Fluency: The Games Room |  |

- repeated subtraction
- partitioning the dividend

Products can be expressed symbolically using the multiplication sign, $x$, factors, and the equal sign.

Quotients can be expressed symbolically using the division sign, $\div$, dividend, divisor, and the equal sign

A missing quantity in a product or quotient can be represented in different ways, including

- $\mathrm{a} \times \mathrm{b}=\square$
- $a \times \square=c$
- $\square \times b=c$
- $e \div f=\square$
- $e \div \square=g$
- $\square \div \mathrm{f}=\mathrm{g}$

A remainder is the quantity left over after division. A multiplication table shows both multiplication and

|  | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication <br> and Division Facts <br> 24: Strategies for Multiplication <br> 27: Strategies for Division |  |
| :--- | :--- | :--- |
| Verify a product <br> or quotient using <br> inverse <br> operations. | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication <br> and Division Facts <br> 26: Relating Multiplication and Division (Encourage <br> the use of inverse operation to check solutions.) |  |
| Determine a <br> missing quantity <br> in a product or <br> quotient in a <br> variety of ways. | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication <br> and Division Facts <br> 26: Relating Multiplication and Division | Number Unit 6: Multiplication and Division <br> 32: Building Fluency: The Games Room |
| Express <br> multiplication and <br> division <br> symbolically. | Link to other grades: <br> Grade 4 Number Unit 6: Multiplying and Dividing <br> Larger Numbers <br> 34: Dividing with Remainders (Remove division of a 3- <br> digit number by a 1-digit number.) | Sports Camp |
| Explain the <br> meaning of the <br> remainder in <br> various situations. | Link to other grades: <br> Grade 4 Number Unit 5: Fluency with Multiplication <br> and Division Facts <br> 25: Solving Multiplication Problems (Include division <br> word problems as well.) <br> 26: Relating Multiplication and Division | Sports Camp |
| Solve problems <br> using multiplication <br> and division in <br> sharing or grouping <br> situations. | Number Unit 6: Multiplication and Division <br> 32: Building Fluency: The Games Room |  |
| Examine patterns <br> in multiplication <br> and division, | ( |  |

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| division facts. |  | including patterns <br> in multiplication <br> tables and skip <br> Fact families are <br> groups of related <br> multiplication and <br> division number <br> facts. |  | Recognize families <br> of related <br> multiplication and <br> division number <br> facts. |
| :--- | :--- | :--- | :--- | :--- | | Number Unit 6: Multiplication and Division |
| :--- |
| 29: Relating Multiplication and Division |
| (Stress fact families when teaching this lesson.) |
| 32: Building Fluency: The Games Room |
| 33: Consolidation |,

## Guiding Question: How can fractions contribute to a sense of number?

Learning Outcome: Students interpret fractions in relation to one whole.

| Knowledge | Understanding |  <br> Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| The same fraction can represent <br> - equal parts of one whole length, shape or object <br> - equal groups of one whole quantity <br> - equal parts of each equal group in one whole quantity <br> The name of a fraction describes its composition as a number of unit fractions. <br> Fraction notation, $\left(\frac{a}{b}\right)$, relates the numerator, $a$, as a number of equal parts, to the denominator, $b$, as the total number of equal parts in the whole. | Fractions are numbers between natural numbers. <br> Fractions can represent part-towhole relationships. <br> A unit fraction describes the size of the equal parts of a fraction. <br> The size of the parts and the total number of equal parts in the whole are inversely related. | Model fractions of a whole quantity, length, shape or object, in various ways, limited to denominators of 12 or less. | Number Unit 4: Fractions <br> 14: Exploring Equal Parts <br> 15: Comparing Fractions 1 <br> Link to other grades: <br> Grade 4 Unit 3: Fractions <br> 15: Different Representations of Fractions |  |
|  |  | Visualize fractions as compositions of a unit fraction. | Number Unit 4: Fractions <br> 14: Exploring Equal Parts <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 |  |
|  |  | Identify the numerator and denominator of a fraction in various representations. | Number Unit 4: Fractions 14: Exploring Equal Parts |  |
|  |  | Name a given fraction. | Number Unit 4: Fractions 14: Exploring Equal Parts |  |
|  |  | Express fractions, including one whole, symbolically, limited to denominators of 12 or less. | Number Unit 4: Fractions <br> 14: Exploring Equal Parts <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 | Hockey Homework |
|  |  | Relate various representations of the same fraction, limited to denominators of 12 or less. | Link to other grades: <br> Grade 4 Unit 3: Fractions <br> 15: Different Representations of Fractions |  |


| Equal numerators or equal denominators can facilitate the comparison of fractions. <br> A fraction with a numerator that is equal to its denominator is one whole. <br> Each fraction is associated with a point on the number line. |  | Compare the same fraction of different-sized wholes. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 <br> Link to other grades: <br> Grade 4 Unit 3: Fractions <br> 15: Different Representations of Fractions <br> (Include the exploration of the same fraction of different-sized wholes.) | Hockey Homework |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Compare different fractions of the same whole that have the same denominator. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 |  |
|  |  | Compare different fractions of the same whole that have the same numerator and different denominators. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 |  |
|  |  | Express the relationship between two fractions of the same whole, using $<,>$, or $=$. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 <br> (Incorporate use of <, >, and = when comparing pairs of fractions.) |  |
|  |  | Relate a fraction less than one to its position on the number line, limited to denominators of 12 or less. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> Link to other grades: <br> Grade 4 Unit 3: Fractions <br> 15: Different Representations of Fractions |  |


|  |  | Compare <br> fractions to <br> benchmarks of 0, <br> $\frac{1}{2}$, and 1. | Number Unit 4: Fractions <br> 15: Comparing Fractions 1 <br> (Include benchmarks on the number line to help with <br> comparison of fractions.) | Hockey Homework |
| :--- | :--- | :--- | :--- | :--- |
| link to other grades: |  |  |  |  |
| Grade 4 Unit 3: Fractions |  |  |  |  |
| 15: Different Representations of Fractions |  |  |  |  |$\quad$|  |
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## mathology

## Mathology Grade 3 Correlation (Algebra) - Alberta

## Organizing Idea:

Equations express relationships between quantities.

## Guiding Question: How can equality facilitate agility with number?

Learning Outcome: Students illustrate equality with equations.

| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| An equation uses the equal sign to indicate equality between two expressions. <br> The left and right sides of an equation are interchangeable. | Two expressions are equal if they represent the same number. | Write equations that represent equality between a number and an expression or between two different expressions of the same number. | Patterning Unit 2: Variables and Equations <br> 8: Solving Equations Concretely <br> Link to other grades: <br> Grade 2 Patterning Cluster 3: Equality and Inequality <br> 19: Exploring Number Sentences for Larger Numbers | A Week of Challenges |
| Equations can be modelled using a balance. <br> A symbol may represent an unknown value in an equation. | Equations can include unknown values. | Model equations that include an unknown value, including with a balance. | Patterning Unit 2: Variables and Equations <br> 8: Solving Equations Concretely <br> 9: Strategies for Solving Equations <br> 11: Creating Equations <br> 12: Consolidation | A Week of Challenges |
|  |  | Determine an unknown value on the left or right side of an equation, limited to equations with one operation. | Patterning Unit 2: Variables and Equations <br> 8: Solving Equations Concretely <br> 9: Strategies for Solving Equations <br> 11: Creating Equations <br> 12: Consolidation | A Week of Challenges |

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|  |  | Solve problems <br> using equations, <br> limited to <br> equations with <br> one operation. | Patterning Unit 2: Variables and Equations <br> 11: Creating Equations | A Week of Challenges |
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## mathology

## Mathology Grade 3 Correlation (Geometry) - Alberta

## Organizing ldea:

Shapes are defined and related by geometric attributes.

## Guiding Question: In what ways might geometric properties refine interpretation of shape? Learning Outcome: Students relate geometric properties to shape.

| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| Geometric properties can describe relationships, including perpendicular, parallel, and equal. <br> Parallel lines or planes are always | Geometric properties are relationships between geometric attributes. <br> Geometric properties define a class of polygon. | Investigate the relationships between the sides of a polygon, including perpendicular, parallel, and equal, using referents for $90^{\circ}$ or by measuring. | New Lesson to Come: Geometric Relationships |  |
| the same distance apart. <br> Perpendicular lines or planes intersect at a $90^{\circ}$ (right) angle. |  | Investigate the relationships between vertices of a polygon, including equal or right angles, using direct comparison or referents for $90^{\circ}$. | New Lesson to Come: Geometric Relationships |  |
| Right angles can be identified using |  | Describe geometric | Geometry Unit 1: 2-D Shapes <br> 1: Sorting Polygons | Gallery Tour WONDERful Buildings |

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| various referents, such as <br> - the corner of a piece of paper <br> - the angle between the hands on an analog clock at 3:00 <br> - a capital letter L |  | properties of regular and irregular polygons. | 2: What's the Sorting Rule? |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sort polygons according to geometric properties and describe the sorting rule. | Geometry Unit 1: 2-D Shapes <br> 1: Sorting Polygons <br> 2. What's the Sorting Rule? <br> 4: Exploring Quadrilaterals <br> 5: Consolidation | WONDERful Buildings |
| Polygons include <br> - triangles <br> - quadrilaterals <br> - pentagons <br> - hexagons <br> - octagons |  | Classify polygons as regular or irregular using geometric properties. | Geometry Unit 1: 2-D Shapes <br> 1: Sorting Polygons <br> 2: What's the Sorting Rule? |  |
| Regular polygons have sides of equal length and interior angles of equal measure. |  |  |  |  |
| Transformations include <br> - translations <br> - rotations <br> - reflections <br> The distance between any two vertices of a shape is maintained in the image created by a transformation. | Geometric properties do not change when a polygon undergoes a transformation. | Examine geometric properties of polygons by translating, rotating, or reflecting using hands-on materials or digital applications. | New Lesson to Come: Transformations | Gallery Tour |

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## neman <br> mathology

## Mathology Grade 3 Correlation (Measurement) - Alberta

## Organizing ldea:

Attributes such as length, area, volume, and angle are quantified by measurement.
Guiding Question: In what ways can length be communicated?
Learning Outcome: Students determine length using standard units.

| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :---: | :---: | :---: | :---: | :---: |
| The basic unit of length in the metric system is the metre. <br> Metric units are named using prefixes that indicate the relationship to the basic unit, including <br> - milli: one thousand millimetres in one metre <br> - centi: one hundred centimetres in one metre <br> - deci: ten decimetres in one metre | Length is measured in standard units according to the metric system and the imperial system. <br> Length can be expressed in various units according to context and desired precision. | Relate millimetres, centimetres, and metres. | Link to other grades: <br> Grade 2 Measurement Cluster 2: Using Standard Units <br> 10: The Centimetre <br> (Include the relationship between metres and centimetres.) <br> Grade 4 Measurement Unit 1: Length, Perimeter, and Area <br> 1: Estimating and Measuring in Millimetres | Measurements About YOU! (Addresses length, mass, capacity, and area.) |
|  |  | Relate inches to feet and yards. | New Lesson to Come: Imperial Units |  |
|  |  | Justify the choice of millimetres, centimetres or metres to measure various lengths. | Link to other grades: <br> Grade 2 Measurement Cluster 2: Using Standard Units <br> 11: Metres or Centimetres? (Include objects that would be measured in millimetres and have students choose among metres, centimetres, and millimetres.) |  |
|  |  | Measure lengths of straight lines and curves, with millimetres, | Measurement Unit 1: Length and Perimeter <br> 3: Measuring Length (Currently addresses measuring length around 2-D shapes and 3-D objects. Add |  |

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| •metre is <br> approximately <br> 3 feet <br> 30 centimetres <br> are <br> approximately <br> 1 foot <br> 1 metre is <br> approximately <br> 1 yard |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |


| Guiding Question: How can angles broaden an understanding of space? Learning Outcome: Students interpret angles. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge | Understanding |  <br> Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| Angle defines the space in <br> - corners <br> - bends <br> - turns or rotations <br> - intersections <br> - slopes | An angle is the union of two arms with a common vertex. <br> An angle can be interpreted as the motion of a length rotated about a vertex. | Recognize various angles in surroundings. | New Lesson to Come: Investigating Angles |  |
|  |  | Recognize situations in which an angle can be perceived as motion. | New Lesson to Come: Investigating Angles |  |
| The arms of an angle can be line segments or rays. <br> The end point of a line segment or ray is called a vertex. |  |  |  |  |
|  |  |  |  |  |
| Superimposing is the process of placing one angle over another to compare angles. <br> A referent is a personal or familiar representation of a known angle. | Two angles can be compared directly or indirectly. | Compare two angles directly by superimposing. | New Lesson to Come: Comparing Angles |  |
|  |  | Compare two angles indirectly by superimposing a third angle. | New Lesson to Come: Comparing Angles |  |
|  |  | Estimate which of two angles is greater. | New Lesson to Come: Comparing Angles |  |
|  |  | Identify referents for $90^{\circ}$. | New Lesson to Come: Investigating Angles New Lesson to Come: Comparing Angles |  |
|  |  | Identify $90^{\circ}$ angles in the environment using a referent. | New Lesson to Come: Investigating Angles New Lesson to Come: Comparing Angles |  |

## mathology

## Mathology Grade 3 Correlation (Patterns) - Alberta

## Organizing Idea:

Awareness of patterns supports problem solving in various situations.

| Guiding Question: How can diverse representations of patterns contribute to interpretation of change? Learning Outcome: Students analyze patterns in numerical sequences. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge | Understanding |  <br> Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| Ordinal numbers can indicate position in a sequence. <br> Finite sequences, such as a countdown, have a definite end. <br> Infinite sequences, such as the natural numbers, never end. | A sequence is a list of terms arranged in a certain order. <br> Sequences may be finite or infinite. | Recognize familiar numerical sequences, including the sequence of even or odd numbers. | New Lesson to Come: Finite and Infinite Number Sequences | Namir's Marvellous Masterpieces How Numbers Work The Best Surprise |
|  |  | Describe position in a sequence using ordinal numbers. | Patterning Unit 1: Increasing and Decreasing Patterns <br> 1: Describing and Extending Patterns (Describe position of terms using ordinal numbers.) |  |
|  |  | Differentiate between finite and infinite sequences. | New Lesson to Come: Finite and Infinite Number Sequences |  |
| Numerical sequences can be constructed using addition, subtraction, multiplication, or division. | A sequence can progress according to a pattern. | Recognize skipcounting sequences in various representations, including rows or columns of a multiplication table. | Patterning Unit 1: Increasing and Decreasing Patterns <br> 3: Creating Patterns <br> 6: Exploring Multiplicative Patterns | Namir's Marvellous Masterpieces |
|  |  | Determine any missing term in a | Patterning Unit 1: Increasing and Decreasing Patterns |  |


|  |  | skip-counting <br> sequence using <br> multiplication. | 4: Identifying Errors and Missing Terms <br> 6: Exploring Multiplicative Patterns |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Describe the <br> change from term <br> to term in a <br> numerical <br> sequence using <br> mathematical <br> operations. | Patterning Unit 1: Increasing and Decreasing <br> Patterns <br> 1: Describing and Extending Patterns <br> 2: Representing Patterns <br> 3: Creating Patterns <br> 5: Solving Problems | Namir's Marvellous <br> Masterpieces <br> The Best Surprise |

## mathology

## Mathology Grade 3 Correlation (Time) - Alberta

## Organizing Idea:

Duration is described and quantified by time.

| Guiding Question: How can duration be communicated? Learning Outcome: Students tell time using clocks. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| Clocks relate seconds to minutes and hours according to a base-60 system. | Clocks are standard measuring tools used to communicate time. | Investigate relationships between seconds, minutes, and hours using an analog clock. | Measurement Unit 3: Time and Temperature 9: Relationship Among Units of Time (Remove days, weeks, months, and years. Only seconds, minutes, and hours required.) |  |
| The basic unit of time is the second. <br> One second is $\frac{1}{6}$ |  | Relate minutes past the hour to minutes until the next hour. | Link to other grades: <br> Grade 4 Measurement Unit 3: Time <br> 13: Telling Time in One- and Five-Minute Intervals (Add a.m. and p.m. when describing time: before or after noon.) |  |
| of a minute. <br> One minute is $\frac{1}{60}$ |  | Describe time of day as a.m. or p.m. relative to 12 -hour cycles of day and night. | Link to other grades: <br> Grade 4 Measurement Unit 3: Time <br> 14: Telling Time on a 24 -Hour Clock |  |
| of an hour. <br> Analog and digital |  | Tell time using analog and digital clocks. | Link to other grades: <br> Grade 4 Measurement Unit 3: Time <br> 13: Telling Time in One- and Five-Minute Intervals |  |
| clocks represent time of day. <br> Time of day can be expressed as a |  | Express time of day in relation to one 24hour cycle. | Link to other grades: <br> Grade 4 Measurement Unit 3: Time <br> 14: Telling Time on a 24 -Hour Clock |  |

Pearson

| duration relative to |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 12:00 in two 12- |  |  |  |  |
| hour cycles. |  |  |  |  |
| Time of day can be |  |  |  |  |
| expressed as a |  |  |  |  |
| duration relative to |  |  |  |  |
| 0:00 in one 24-hour |  |  |  |  |
| cycle in some |  |  |  |  |
| contexts, including |  |  |  |  |
| French-language |  |  |  |  |
| contexts. |  |  |  |  |

## mathology

## Mathology Grade 3 Correlation (Statistics) - Alberta

## Organizing Idea:

The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making.

| Guiding Question: How can representation support communication? <br> Learning Outcome: Students interpret and explain representations of data. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge | Understanding | Skills \& Procedures | Grade 3 mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| Statistical questions are questions that can be answered by collecting data. | Representation connects data to a statistical question. | Formulate statistical questions for investigation. | Data Unit 1: Data Management 3A: Collecting Data | Welcome to The Nature Park |
|  |  | Predict the answer to a statistical question. | Data Unit 1: Data Management <br> 3A: Collecting Data (Have students predict the answer to a question before collecting data.) |  |
| First-hand data is collected by the person using the data. <br> Second-hand data is data collected by others from sources such as websites and social media. | Representation expresses data specific to a unique time and place. <br> Representation tells a story about data. | Collect data using digital or non-digital tools and resources. | Data Unit 1: Data Management <br> 3A: Collecting Data (Currently uses non-digital resources; include use of digital resources as well (e.g., websites, social media).) | Welcome to The Nature Park |
|  |  | Represent first-hand and second-hand data in a dot plot or bar graph with one-to-one correspondence. | Data Unit 1: Data Management <br> 4A: Drawing Bar Graphs <br> 5A: Drawing Line Plots (May want to refer to line plots as dot plots.) <br> 6A: Consolidation |  |
|  |  | Describe the story that a representation tells about a collection of | Data Unit 1: Data Management <br> 1A: Interpreting Bar Graphs <br> 2A: Interpreting Line Plots <br> (May want to refer to line plots as dot plots.) | Welcome to The Nature Park |


|  |  | data in relation to a <br> statistical question. |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Examine First Nations, <br> Métis, or Inuit <br> representations of <br> data. | New Lesson to Come: First Nations, Métis, or Inuit <br> Representations of Data |  |  |
| Consider possible <br> answers to a statistical <br> question based on the <br> data collected. | Data Unit 1: Data Management <br> 3A: Collecting Data <br> (Have students use collected data to consider possible <br> answers to a statistical question.) |  |  |  |

## mathology

## Mathology Grade 3 Correlation (Financial Literacy) - Alberta

## Organizing Idea:

Informed financial decision making contributes to the well-being of individuals, groups, and communities.
Guiding Question: In what ways can money management be supported?
Learning Outcome: Students describe strategies that support responsible money management.

| Knowledge | Understanding | Skills \& Procedures | Grade $\mathbf{3}$ mathology.ca <br> (Suggested ways to align with 2022 curriculum) | Mathology Little Books |
| :--- | :--- | :--- | :--- | :--- |

- buying items that are affordable
- taking time when making purchases
- not purchasing more than is needed

Saving means not spending in order to keep money aside for unexpected expenses and to pay for purchases, activities, and future plans or goals.

Responsible saving can be supported through strategies, such as

- considering needs and wants
- setting financial goals
- establishing a savings account
- putting earned money aside on a regular basis

Responsible money management can allow individuals to help others in need through donation.

| Donating money <br> can have a | Identify possible short- <br> term and long-term | New Lesson to Come: Short-term and Long-term <br> Saving Goals |
| :--- | :--- | :--- | significant impact on the well-being of others.

