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<tbody>
<tr>
<td>Measurement, length, weight</td>
<td>At the end of this lesson, the student is able to: *draw a long object and a short object; make a comparison *identify whether materials are light or heavy; make a comparison</td>
<td>Australia</td>
<td>Sheep farm</td>
<td>M0101</td>
<td></td>
</tr>
<tr>
<td>Numbers, counting to 5</td>
<td>At the end of this lesson, the student is able to: *count forwards from 0 to 5 *read and write numerals up to number 5 *realize one-to-one correspondence when counting *match numerals to the number of objects</td>
<td>Australia</td>
<td>BBQ party</td>
<td>M0102</td>
<td></td>
</tr>
<tr>
<td>Space, shapes</td>
<td>At the end of this lesson, the student is able to: *using 2 objects, be able to describe the position of one to the other *use ordinary names for 3D objects (box &amp; ball)</td>
<td>Australia</td>
<td>Snorkeling great barrier reef</td>
<td>M0103</td>
<td></td>
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<tr>
<td>Numbers, counting to 10</td>
<td>At the end of this lesson, the student is able to: *count from 0 to 10 *identify numbers up to 5 using words, numerals and symbols *match numerals to the objects *show one-to-one correspondence while counting</td>
<td>Australia</td>
<td>Music center</td>
<td>M0104</td>
<td></td>
</tr>
<tr>
<td>Groups, shapes</td>
<td>At the end of this lesson, the student is able to: *group shapes according to their size or shape *find and identify shapes in the environment *pair the shapes together that are presented in different orientations *name a circle, triangle, square, oval and rectangle</td>
<td>Australia</td>
<td>Truck stop</td>
<td>M0105</td>
<td></td>
</tr>
<tr>
<td>Numbers, counting to 10, counting backwards</td>
<td>At the end of the lesson, the student is able to: *identify numbers up to 10 using numerals, symbols and words *read a calculator display *use the symbol and name for zero *count backwards from a chosen number all the way to zero *understand one-to-one correspondence while counting</td>
<td>Australia</td>
<td>Surfing, Beach</td>
<td>M0106</td>
<td></td>
</tr>
<tr>
<td>Measurement, sizes, comparison</td>
<td>At the end of this lesson, the student is able to: *describe size in ordinary language *compare sizes using direct comparison (able to use comparative language to describe size, larger than, smaller than and the same as) *compare measures using non-standard units, compare capacities of containers, compare volumes of objects/substances using direct comparison recognizing when a container is empty, full or estimate half-full, arrange objects using comparative measurements *compare capacities of containers *compare volumes of objects/subst</td>
<td>Europe</td>
<td>English bus</td>
<td>M0107</td>
<td></td>
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</tbody>
</table>
| ![Numbers, counting](image) | Numbers, counting | At the end of this lesson, the student is able to:  
• count to the number 10  
• read, orders and represents numbers from 0 to 10  
• demonstrates one-to-one correspondence when counting  
• demonstrates ability to read and write numerals 6 to 10 | Europe | Living in the mill | M0108 |
| ![Measurement, comparison, size, length, data](image) | Measurement, comparison, size, length, data | At the end of this lesson, the student is able to:  
• describe length and distance using ordinary language; compare lengths using direct comparison  
• determine whether an object is longer or shorter than another object  
• record length comparisons by drawing  
• makes and interprets displays made from objects and pictures  
• organizes pictures in a data display  
• compares groups by counting  
• uses one attribute to sort and label objects into sets | Europe | Pizza (Italian) restaurant | M0109 |
| ![Time, daytime, nighttime, comparison](image) | Time, daytime, nighttime, comparison | At the end of this lesson, the student is able to:  
• sequences events and uses ordinary language to associate the duration of activities  
• identify day-time and night-time  
• identify terms "before", "after", "morning" and "afternoon"  
• compare duration of 2 events | Europe | Russian toy store | M0110 |
| ![Numbers, counting](image) | Numbers, counting | At the end of this lesson, the student is able to:  
• count to 10  
• read, associate and order numbers from 0 to 10  
• use 5 as a base in forming numbers 6 to 10  
• combine, compare and separate collections of objects  
• using ordinary language, determines and records using informal methods  
• compares two groups and refers to "how many more"  
• name an addition problem using drawings or actions | Europe | Orange trees, Olive trees | M0111 |
| ![Patterns](image) | Patterns | At the end of this lesson, the student is able to:  
• discover, describe, creates and continues repeating pattern; number patterns that increase or decrease  
• produces a staircase pattern to reflect the pattern made by counting forwards by one  
• develops and describes a simple pattern involving shapes and numbers | Europe | Eiffel tower | M0112 |
| ![Numbers, counting to 10](image) | Numbers, counting to 10 | At the end of this lesson, the student is able to:  
• count from 0 to 10  
• understand which number comes before and after a chosen number  
• compare and order numbers to 10  
• count with one-to-one correspondence | Antarctica | Ice-cream shop | M0201 |
| ![Days of the week, tomorrow, yesterday, weekend](image) | Days of the week, tomorrow, yesterday, weekend | At the end of the lesson, the student is able to:  
• name the days of the week  
• use the term today, tomorrow and yesterday  
• relate an event to a certain day of the week  
• identify weekends as well as weekdays | Antarctica | Igloo | M0202 |
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</table>
| ![Addition](image1.png) | Addition | At the end of this lesson, the student is able to:  
• solve simple addition problems  
• make a few different visual arrangements for the same number  
• create combinations for numbers to 5  
• make different combinations to 5 | Antarctica | Penguins | M0203 |
| ![Position, movement](image2.png) | Position, movement | At the end of this lesson, the student is able to:  
• execute a simple request to position an object  
• predict and describe the movement of an object | Antarctica | Husky sled | M0204 |
| ![Subtraction, count using fingers, groups](image3.png) | Subtraction, count using fingers, groups | At the end of this lesson, the student is able to:  
• show a subtraction problem using actions or drawings  
• solve simple subtraction problems using objects such as fingers  
• take away part of a group of objects and declare the number of objects | Antarctica | Fisher boat | M0205 |
| ![Comparing, measurement, size](image4.png) | Comparing, measurement, size | At the end of this lesson, the student is able to:  
• fill a container by stacking blocks  
• predict what the water level will do when different sized objects are submerged  
• make comparisons to describe mass | Antarctica | Fashion store | M0206 |
| ![Comparison, numbers, counting to 10,](image5.png) | Comparison, numbers, counting to 10, | At the end of this lesson, the student is able to:  
• describe "how many more" when comparing 2 groups  
• create combinations for numbers 0 to 10  
• choose appropriate method for solving a problem | Africa | Wild park | M0207 |
| ![Space, position, length](image6.png) | Space, position, length | At the end of this lesson, the student is able to:  
• use ordinary language to describe position  
• use ordinary language to describe length | Africa | Market place | M0208 |
| ![Numbers, counting, ordinal names](image7.png) | Numbers, counting, ordinal names | At the end of this lesson, the student is able to:  
• read ordinal numbers and ordinal number words  
• state the ordinal names from "first" to "tenth"  
• match ordinal numbers and ordinal words to 10th | Africa | Bus station | M0209 |
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</table>
| ![2d shapes, pattern](image1.png) | 2d shapes, pattern | At the end of this lesson, the student is able to:  
- create a pattern by combining 2D shapes  
- make a repeating pattern and describe how it was achieved  
- make a repeating pattern in terms of a number pattern  
- describe closed shapes and lines as well as compare them | Africa | Music, Dance performance | M0210 |
| ![Counting to 10](image2.png) | Counting to 10 | At the end of this lesson, the student is able to:  
- count forward by ones to add  
- model different combinations to 10, using some materials  
- use number facts to 10  
- choose an appropriate method to solve a problem | Africa | Traditional African village | M0211 |
| ![Days of the week, today, tomorrow, yesterday, data](image3.png) | Days of the week, today, tomorrow, yesterday, data | At the end of this lesson, the student is able to:  
- name the days of the week  
- put in order the days of the week  
- use terms "today", "tomorrow" and "yesterday"  
- produce and interpret data displays | Africa | Group of Pyramids | M0212 |
| ![Numbers, counting to 20](image4.png) | Numbers, counting to 20 | At the end of this lesson, the student is able to:  
- read numerals up to 20  
- group objects up to 20  
- match numerals to number of objects  
- forward count in the range of 0-20 from a given number  
- describe numbers to 20 using numerals, symbols and words  
- name the number before and after a given number | North America | Movie theater | M0301 |
| ![Patterns, 2d shapes](image5.png) | Patterns, 2d shapes | At the end of this lesson, the student is able to:  
- recognize a repeating pattern from shapes, pictures or objects  
- make repeating patterns by drawing, cutting, tearing, pasting or painting  
- sort 2D shapes according to features, including shape and size | North America | Hamburger restaurant | M0302 |
| ![Comparing, length, 2d objects](image6.png) | Comparing, length, 2d objects | At the end of this lesson, the student is able to:  
- compare the lengths of 2 objects by placing objects side-by-side and aligning ends  
- put object into long and short groups  
- make comparisons to describe length  
- compare lengths using non-standard units | North America | Native American village | M0303 |
| ![Numbers, monetary language, value of coins](image7.png) | Numbers, monetary language, value of coins | At the end of this lesson, the student is able to:  
- put in order a set of numbers from smallest to largest  
- locate the smallest and largest number  
- identify the number before and after a given number  
- guess the number of objects in a group, then counts to check  
- use monetary language  
- describe the value of coins  
- find an appropriate method to solving a problem | North America | Halloween | M0304 |
| ![Analogue clock, digital clock](image8.png) | Analogue clock, digital clock | At the end of this lesson, the student is able to:  
- read the time on the hour using analogue as well as digital clocks  
- discuss time using the term "o'clock" | North America | Baseball | M0305 |
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<tr>
<td></td>
<td>Numbers, halves, fractions</td>
<td>At the end of this lesson, the student is able to:</td>
<td>North America</td>
<td>School bus</td>
<td>M0306</td>
</tr>
<tr>
<td></td>
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<td>• understand that halves are two equal parts</td>
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<td>• demonstrate fractions of objects using drawings</td>
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<td></td>
<td>Numbers, counting, addition</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Food market</td>
<td>M0307</td>
</tr>
<tr>
<td></td>
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<td>• forward count by ones to add</td>
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<td></td>
<td>• combine 2 groups using ordinary language</td>
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<td>• use objects to show numbers up to 20</td>
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<td>• record addition sentences using numerals, words &amp; drawings</td>
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<td></td>
<td>Seasons, measurement</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Rice field</td>
<td>M0308</td>
</tr>
<tr>
<td></td>
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<td>• name the seasons and be able to put them in order</td>
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<td></td>
<td>• measure and label using non-standard units of measure</td>
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<td></td>
<td>Subtraction, subtracting backwards</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Riksjas, toek</td>
<td>M0309</td>
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<td></td>
<td></td>
<td>• show subtraction by using their fingers</td>
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<td></td>
<td></td>
<td>• subtract backwards counting by ones</td>
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<td></td>
<td>Comparison, patterns</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Tea store</td>
<td>M0310</td>
</tr>
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<td></td>
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<td>• state the quality of groups by using the term &quot;is the same as&quot;</td>
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<td>• find patterns using the rules for addition</td>
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<td>• recognize, copy and repeat a repeating pattern</td>
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<td></td>
<td>• make repeating patterns by drawing</td>
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<td></td>
<td>Groups</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Elephants plant</td>
<td>M0311</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• describe and sort a collection of objects as a group</td>
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<td></td>
<td></td>
<td>• demonstrate grouping by the use of numerals and pictures</td>
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<td></td>
<td>Symmetry, 3d objects</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Asia</td>
<td>Dojo</td>
<td>M0312</td>
</tr>
<tr>
<td></td>
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<td>• make a simple symmetrical drawing</td>
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<td>• use a mirror to see its symmetrical design</td>
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<td>• sort 3-dimensional objects and explain them by the use of everyday objects</td>
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</table>
| Numbers, counting to 30, counting forwards, counting backwards | At the end of this lesson, the student is able to:  
- read numerals from 0 to 30  
- match numerals to the number of objects  
- count forwards and backwards from a given number from 0 to 30 | South America | Inca temple | M0401 |
| 2d objects, weight, arm balance | At the end of this lesson, the student is able to:  
- identify by lifting 2 objects which one is heavier or lighter  
- identify between 2 objects (using an equal arm balance), which object is heavier or lighter | South America | Amazone river boat trip | M0402 |
| Numbers, counting to 30 | At end of this lesson, the student is able to:  
- show numbers to 30 using numerals and words  
- count forwards from 0 to 30 from a given number in that range  
- use 20 as a base to form numbers from 20 to 30 | South America | Lama farm | M0403 |
| Reading the time, analogue clock, digital clock, data | At the end of this lesson, the student is able to:  
- read the time on the hour using both analogue and digital clocks  
- collect data about their environment and themselves  
- interpret information presented in a data display to answer questions  
- understand the use of pictures as symbols to represent objects in data displays | South America | Carnival parade in Rio | M0404 |
| Subtraction, counting backwards | At the end of this lesson, the student is able to:  
- count backwards by ones to subtract  
- demonstrate subtraction informally  
- describe the action of separating | South America | Street orchestra | M0405 |
| Distance, 3D objects | At the end of this lesson, the student is able to:  
- describe the terms of distance: near, far, nearer, further and closer  
- describe the features of 3D objects using ordinary language | South America | Soccer stadium | M0406 |
| Fractions | At the end of this lesson, the student is able to:  
- describe division using the term "sharing"  
- draw and record a fraction of an object  
- describe parts of an object using the terms "half" and "quarter" | Phantasia continent | Castle in the clouds | M0407 |
| Number | At the end of this lesson, the student is able to:  
- describe division using the term "sharing"  
- draw and record a fraction of an object  
- describe parts of an object using the terms "half" and "quarter" | Phantasia continent | Singing Angels | M0408 |
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</table>
| ![Division Icon](image) | Division | At the end of this lesson, the student is able to:  
• describe division using the term "sharing" | Phantasia | World of Fish | M0409 |
| ![Symmetry, 2d objects Icon](image) | Symmetry, 2d objects | At the end of this lesson, the student is able to:  
• determine and understand a line of symmetry  
• recognize 2D shapes in pictures and also the environment  
• make symmetrical patterns using shapes and colors | Phantasia | Wizards, Harry Potter | M0410 |
| ![Collections, estimation, groups Icon](image) | Collections, estimation, groups | At the end of this lesson, the student is able to:  
• share collections of objects  
• estimate numbers of objects, then counts them to check  
• model and equal the groups | Phantasia | Treasure island | M0411 |
| ![Collections, estimation, groups Icon](image) | Collections, estimation, groups | At the end of this lesson, the student is able to:  
• share collections of objects  
• estimate numbers of objects, then counts them to check  
• model and equal the groups | Phantasia | Dinosaurs | M0412 |
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| ![Tractor](image) | Numbers, counting to 20, 2 digit numbers | At the end of this lesson, the student is able to:  
- count between the numbers 0 to 20 by ones in a forward sequence  
- count and read 2-digit numbers | Australia | Sheep farm | M1101 |
| ![2D shapes](image) | 2D shapes, groups | At the end of this lesson, the student is able to:  
- name shapes in the environment including square, triangle, circle, hexagon and rectangle  
- divide shapes into groups according to their shape  
- draw 2-dimensional shapes | Australia | BBQ party | M1102 |
| ![Ocean](image) | Numbers, counting to 20, 2 digit numbers, $ symbol, comparing | At the end of this lesson, the student is able to:  
- count by ones forwards and backwards from a given number from 0 to 20  
- recognize 1 and 2-digit numbers before and after a given 1 or 2-digit number  
- write 1 and 2-digit numbers  
- recognize the dollar ($) symbol and be able to use it  
- compare numbers using the terms "more than" and "less than" | Australia | Snorkeling great barrier reef | M1103 |
| ![Music](image) | Days of the week, comparing | At the end of this lesson, the student is able to:  
- name the days of the week  
- determine what day comes before or after a given day  
- cover the shape with informal area units and count the number used  
- describe area using comparative language | Australia | Music center | M1104 |
| ![Truck](image) | Numbers, addition, pictorial representations, + and = symbols | At the end of this lesson, the student is able to:  
- model addition facts using materials that are concrete  
- match number sentences to their pictorial representations  
- write number sentences using + and = symbols  
- write number facts for various numbers up to 10 | Australia | Truck stop | M1105 |
| ![Surfing](image) | Months of the year, comparing, length | At the end of this lesson, the student is able to:  
- name the months of the year and put them in order  
- determine whether an object is longer or shorter than another one  
- count units to compare and order the lengths of 2 or more objects  
- record length comparisons by drawing | Australia | Surfing, Beach | M1106 |
| ![Europe](image) | 2 digit numbers, counting using fingers, face value for coins, counting money | At the end of this lesson, the student is able to:  
- count forward by ones, fives and tens between 0 to 30  
- record 2-digit numbers  
- use 10 as a base to form numbers up to 30  
- represent numbers up to 30 using fingers  
- name the face value of coins  
- record money amounts using cent symbols  
- add money to calculate the total | Europe | English bus | M1107 |
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<tr>
<td>3D objects</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• name and identify spheres, cones and cylinders</td>
<td>Europe</td>
<td>Living in the mill</td>
<td>M1108</td>
</tr>
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<td></td>
<td>• notice 3-dimensional objects in the environment</td>
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<tr>
<td>Time, analogue clocks, comparing</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• determine the time using analogue clocks</td>
<td>Europe</td>
<td>Pizza (Italian) restaurant</td>
<td>M1109</td>
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<td></td>
<td>• use the term “o’clock” when discussing time</td>
<td>• observe the capacity of 2 containers and compare</td>
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<td></td>
<td>• fill a smaller container, pour into a larger one; compare their capacities</td>
<td>• determine how many cups of water is needed to fill 2 different containers; compare</td>
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<td></td>
<td>• put 3 containers in order according to their capacity</td>
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<tr>
<td>count using a number line, doubles</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• record 2-digit numbers</td>
<td>Europe</td>
<td>Russian toy store</td>
<td>M1110</td>
</tr>
<tr>
<td></td>
<td>• count forward by ones from 0 to 30 from a given number</td>
<td>• order a set of numbers using a number line</td>
<td></td>
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<tr>
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<td>• record various number facts for numbers up to 10, including doubles</td>
<td>• match pictorial representations to number sentences</td>
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<tr>
<td>Data, comparing</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• gather data to answer a question</td>
<td>Europe</td>
<td>Orange trees, Olive trees</td>
<td>M1111</td>
</tr>
<tr>
<td></td>
<td>• fill a small container and pour into a larger one to compare capacity</td>
<td>• put in order 3 containers according to their capacity</td>
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<td></td>
<td>• use one picture to display data in a picture graph</td>
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<tr>
<td>Numbers, patterns</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• use concrete materials to model addition facts</td>
<td>Europe</td>
<td>Eiffel tower</td>
<td>M1112</td>
</tr>
<tr>
<td></td>
<td>• determine different number facts for 5, 6, 7 and 8</td>
<td>• model patterns that can be created for a number</td>
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<tr>
<td>Length, using a meter stick</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• identify an object as being longer or shorter</td>
<td>Antarctica</td>
<td>Ice-cream shop</td>
<td>M1201</td>
</tr>
<tr>
<td></td>
<td>• place 2 objects side-by-side, align the ends and compare the lengths</td>
<td>• count units to compare and order the length of 2 or more objects</td>
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<td></td>
<td>• measure length of an object by placing informal units end-to-end without gaps or overlaps</td>
<td>• make a tape measure and measure length with it (tape measure is calibrated in informal units)</td>
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<tr>
<td>Numbers, counting to 50, 2-digit numbers, 3-digit numbers</td>
<td>At the end of this lesson, the student is able to:</td>
<td>• forward count by ones, fives and tens to 50</td>
<td>Antarctica</td>
<td>Igloo</td>
<td>M1202</td>
</tr>
<tr>
<td></td>
<td>• describe a number in relation to another number</td>
<td>• read and write 2 and 3-digit numbers</td>
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<td>Lesson Icon</td>
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<tr>
<td>Positions, 3D objects, using a plan</td>
<td>At the end of this lesson, the student is able to: • describe the position of an object in a drawing or photograph • identify as well as name cones, prisms, cubes and cylinders • draw a path to show a described route, using a simple plan</td>
<td>Antarctica</td>
<td>Penguins</td>
<td>M1203</td>
<td></td>
</tr>
<tr>
<td>Numbers, counting to 20, number sentences, using symbols + and =, number lines</td>
<td>At the end of this lesson, the student is able to: • document different number facts up to the number 20 • document addition facts in number sentences • document number sentences using the symbols &quot;+&quot; and &quot;=&quot; • match pictorial representations to number sentences • model addition using number lines</td>
<td>Antarctica</td>
<td>Husky sled</td>
<td>M1204</td>
<td></td>
</tr>
<tr>
<td>Months of the year, seasons, 2D objects, arm balance</td>
<td>At the end of this lesson, the student is able to: • name and order the months of the year • associate the months to each season • describe the mass of more than 2 objects using comparative language • find 2 objects having the same mass using an equal arm balance • find which of 2 objects is heavier or lighter by using an equal arm balance</td>
<td>Antarctica</td>
<td>Fisher boat</td>
<td>M1205</td>
<td></td>
</tr>
<tr>
<td>Fractions</td>
<td>At the end of this lesson, the student is able to: • model and explain the dividing of a whole object into halves • model and explain the sharing of a collection of objects between 2 people • place a collection of objects into equal groups to show division</td>
<td>Antarctica</td>
<td>Fashion store</td>
<td>M1206</td>
<td></td>
</tr>
<tr>
<td>Using symbols + - =, counting back, subtraction</td>
<td>At the end of this lesson, the student is able to: • write subtraction facts in number sentences using the symbols &quot;+&quot;, &quot;-&quot; and &quot;=&quot; • to find the number remaining by counting back from the first number • match number sentences to pictorial representations • write simple subtraction facts in number sentences • solve a simple subtraction story and picture problem</td>
<td>Africa</td>
<td>Wild park</td>
<td>M1207</td>
<td></td>
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<tr>
<td>2D shapes, patterns</td>
<td>At the end of this lesson, the student is able to: • identify squares, circles and triangles • draw 2-dimensional shapes • determine the number of sides and corners on 2-dimensional shapes, then record them • recognize and create repeating patterns using various shapes, objects and by drawing</td>
<td>Africa</td>
<td>Market place</td>
<td>M1208</td>
<td></td>
</tr>
<tr>
<td>Patterns, odd and even numbers</td>
<td>At the end of this lesson, the student is able to: • produce a pattern that increases or decreases • demonstrate odd and even numbers by pairing counters in rows</td>
<td>Africa</td>
<td>Bus station</td>
<td>M1209</td>
<td></td>
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<tr>
<td>Lesson Icon</td>
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<tr>
<td>Data, chance (possible / impossible)</td>
<td>At the end of this lesson, the student is able to: • write data using symbols • use one object to represent one item, create a column graph • determine whether familiar events are possible or impossible</td>
<td>Africa</td>
<td>Music, Dance performance</td>
<td>M1210</td>
<td></td>
</tr>
<tr>
<td>Numbers, comparing, size</td>
<td>At the end of this lesson, the student is able to: • write various number facts for 10 • describe area using comparative language • estimate, then cover a shape with informal units and count the number used • give an estimate to the number of informal units needed to measure area</td>
<td>Africa</td>
<td>Traditional African village</td>
<td>M1211</td>
<td></td>
</tr>
<tr>
<td>Counting, multiplication, number line, skip counting</td>
<td>At the end of this lesson, the student is able to: • count forward by two's starting from zero • applies skip counting to find the total number • use a number line to solve multiplication questions • make collections of objects as &quot;rows of&quot; • apply repeated addition to find the total number</td>
<td>Africa</td>
<td>Group of Pyramids</td>
<td>M1212</td>
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</tr>
<tr>
<td>Numbers, counting to 100, groups, symbols and =</td>
<td>At the end of this lesson, the student is able to: • write 2-digit numbers • count forward in the range of 0 to 100, from a given number, by ones and tens • form numbers to 100 using ten as the base • make a collection of objects by grouping them in tens • put in order set of 2-digit numbers • write number sentences using the symbols &quot;+&quot; and &quot;=&quot; • find the total by counting by tens</td>
<td>North America</td>
<td>Movie theater</td>
<td>M1301</td>
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<tr>
<td>Reading time, analogue and digital clocks, 2D objects, mass, arm balance</td>
<td>At the end of this lesson, the student is able to: • describe o'clock times using both analogue and digital clocks • describe the mass of more than 2 objects using comparative language • record the mass of 3 objects by lifting • use informal units to measure the mass of an object • decide which of 2 objects is heavier or lighter using an equal arm balance</td>
<td>North America</td>
<td>Hamburger restaurant</td>
<td>M1302</td>
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<tr>
<td>Position, following directions, chance (sometimes, never, always)</td>
<td>At the end of this lesson, the student is able to: • describe position (on top, under, beside, between, behind) using ordinary language • follow simple directions • use ordinary terms that relate to chance (sometimes, never, always)</td>
<td>North America</td>
<td>Native American village</td>
<td>M1303</td>
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<tr>
<td>Time, duration, one minute, addition stories</td>
<td>At the end of this lesson, the student is able to: • use the term &quot;one minute&quot; to describe time • create and solve simple addition stories in similar contexts • record number sentences using &quot;+&quot; and &quot;=&quot; symbols • use sand timers to compare the duration of multiple events</td>
<td>North America</td>
<td>Halloween</td>
<td>M1304</td>
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</tbody>
</table>
| Fractions, money | At the end of this lesson, the student is able to:  
• divide a whole object into quarters and describe  
• state which 4 parts are not quarters  
• use a drawing to show a fraction of an object  
• name face values of coins and notes  
• find the total by adding | North America | Baseball | M1305 |
| 3D objects | At the end of this lesson, the student is able to:  
• identify and name cubes, cones, spheres and cylinders  
• describe 3-dimensional objects using "faces"  
• match an actual object to a photograph or drawing of an object  
• sort 3-dimensional objects according to a particular attribute (ex: face) | North America | School bus | M1306 |
| Counting, number sentences, addition | At the end of this lesson, the student is able to:  
• recall familiar number facts when solving addition problems  
• write various number facts for numbers up to 10  
• model equal rows  
• use repeated addition to find the total number  
• match number sentences to pictorial representations  
• find the total of 2 numbers by counting on from the larger number | Asia | Food market | M1307 |
| Data, length | At the end of this lesson, the student is able to:  
• understand information displayed in column graphs  
• measure curves using informal units  
• collect data to answer a question  
• determine length as the number and type of units used, then record it  
• straighten a curved length of material to be sure the 2 lengths are the same | Asia | Rice field | M1308 |
| Time, capacity | At the end of this lesson, the student is able to:  
• find objects that stack  
• stack and pack blocks into a container to fill it  
• use informal units to estimate and check the capacity of a container  
• use an analogue clock to tell half-hour time | Asia | Riksjas ,toek toe | M1309 |
| Subtraction, money | At the end of this lesson, the student is able to:  
• subtract money to calculate change  
• subtract amounts in whole dollars  
• show subtraction as the difference between 2 numbers | Asia | Tea store | M1310 |
| 2D shapes, subtraction | At the end of this lesson, the student is able to:  
• draw a 2-dimensional shape in different orientations  
• name hexagons shown in different orientations  
• make and solve simple subtraction stories using familiar contexts  
• show subtraction as the difference between 2 numbers | Asia | Elephants plant | M1311 |
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</thead>
</table>
| Division    | At the end of this lesson, the student is able to:  
• place a collection into equal groups to show division (key words: equal groups, share equally, how many each? how many altogether? How many groups?) | Asia | Dojo | M1312 |
| 2-digit numbers, counting to 100 | At the end of this lesson, the student is able to:  
• write 2-digit numbers  
• identify a number in relation to another number  
• put in order a set of 2-digit numbers  
• form numbers up to 100 using ten as the base  
• count forward by tens  
• explain the place value of digits in a 2-digit number | South America | Inca temple | M1401 |
| Length, time: second, minute, hour | At the end of this lesson, the student is able to:  
• describe length as the number and type of units used; then record it  
• use the terms: second, minute and hour to describe time  
• measure the length of an object by putting informal units end-to-end with no gaps or overlaps | South America | Amazone river boat trip | M1402 |
| Addition, subtraction, 2-digit numbers, money | At the end of this lesson, the student is able to:  
• write 2-digit numbers  
• write number sentences using the symbols " + " and " = "  
• count forward and backward by tens on the decade  
• extend the pattern of tens  
• count backwards from the larger number to find the number remaining  
• show subtraction facts using concrete materials  
• write number sentences using " - " and " = " symbols  
• subtract whole dollar amounts  
• calculate change by subtracting money  
• identify a number in relation to another number  
• put in order a set of 2-digit numbers  
• form numbers up to 100 using ten as the base  
• count forward by tens  
• explain the place value | South America | Lama farm | M1403 |
| Reading time, analogue clocks, mass, comparing arm balance | At the end of this lesson, the student is able to:  
• use analogue clocks to read half-hour time  
• recognize everyday events with the times that they occur  
• use comparative language to describe the mass of more than 2 objects  
• measure mass of an object using informal units  
• find which of 2 objects is heavier or lighter by using an equal arm balance  
• find 2 collections of objects that have the same mass using a balance | South America | Carnival parade in Rio | M1404 |
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<th>Grade 1</th>
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<tbody>
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<td><strong>Lesson Icon</strong></td>
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</table>
| ![Lesson Icon](image1) | 2-digit numbers, counting to 100, using calculator, odd & even numbers | At the end of this lesson, the student is able to:  
• write 2-digit numbers  
• count forward from a given number by ones in the range of 0 to 100  
• enter a given number on a calculator and continue to add a constant number  
• name the pattern for odd and even numbers | South America | Street orchestra | M1405 |
| ![Lesson Icon](image2) | Fractions, area | At the end of this lesson, the student is able to:  
• show the dividing of a whole object into halves and quarters  
• understand that fractions need to be equal in size  
• cover the shapes with informal units and count the number used  
• make identical units to cover each area being compared  
• measure area using identical informal units without gaps or overlap | South America | Soccer stadium | M1406 |
| ![Lesson Icon](image3) | 2D shapes, symmetry, position | At the end of this lesson, the student is able to:  
• represent 2-dimensional shapes by drawing  
• draw and color in symmetrical designs  
• refer to the position of an object in a drawing | Phantasia continent | Castle in the clouds | M1407 |
| ![Lesson Icon](image4) | Counting by twos, counting by fives | At the end of this lesson, the student is able to:  
• make a pattern that increases  
• count by twos and fives  
• find the total number by skip counting  
• find the total number using repeated addition | Phantasia continent | Singing Angels | M1408 |
| ![Lesson Icon](image5) | 3D objects, faces, edges, corners, volume | At the end of this lesson, the student is able to:  
• describe 3 dimensional objects by the terms "faces, edges and corners"  
• recognize the features of 3D objects  
• make 3D models  
• use blocks to build models and compare their volume by counting numbers by units used  
• compare the volume of 3 objects by noting the change in water level when each is submerged | Phantasia continent | World of Fish | M1409 |
| ![Lesson Icon](image6) | Ordinal names, using a calendar | At the end of this lesson, the student is able to:  
• use ordinal names from 1st to 10th  
• find a date on the calendar and name the day on which it falls  
• read a calendar using ordinal names 1st to 31st | Phantasia continent | Wizards, Harry Potter | M1410 |
| ![Lesson Icon](image7) | Events, reading time | At the end of this lesson, the student is able to:  
• describe change events using ordinary language  
• discover a range of possibilities in everyday situations that are familiar  
• use an analogue clock to read the time on the half-hour and hour  
• use the terms "o'clock" and "half-past" | Phantasia continent | Treasure island | M1411 |
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<th>Lesson Icon</th>
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<th>theme</th>
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</table>
| ![Lesson Icon](image) | Counting to 100, comparing, multiplication, division | At the end of this lesson, the student is able to:  
• count forwards from a given number from 0 to 100 by ones  
• compare the size of groups while estimating  
• count by 2’s, 3’s and 4’s  
• model and describe multiplication as equal groups  
• make collections of objects as a group of  
• set a collection of objects into equal groups to model division | Phantasia continent | Dinosaurs | M1412 |
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<th>theme</th>
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<tbody>
<tr>
<td></td>
<td>Shape and space</td>
<td>At the end of this lesson, the student is able to: •show 2-dimensional shapes by drawing •count forward by ones from a given number in the range of 0 to 100 •count forward by tens on and off the decade •recognize a number in relation to another number •read and write 2-digit numbers •show the number of sides and corners on a 2-dimensional shape •count forwards in multiples of 5 or 10 using a hundred chart •count backwards by twos or fives</td>
<td>Australia</td>
<td>Sheep farm</td>
<td>M2101</td>
</tr>
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<td></td>
<td>Measurement</td>
<td>At the end of this lesson, the student is able to: •determine the length as the number and type of units used, describe it •measure length of an object by arranging informal units end-to-end with no gaps or overlaps •make a tape measure calibrated in informal units •name various number facts for 10 •join 2 groups of objects together and refer to the number altogether •count units</td>
<td>Australia</td>
<td>BBQ party</td>
<td>M2102</td>
</tr>
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<td></td>
<td>Measurement</td>
<td>At the end of this lesson, the student is able to: •use analogue clocks to read and state &quot;o'clock&quot; times •use digital clocks to read and state half-hour times</td>
<td>Australia</td>
<td>Snorkeling great barrier reef</td>
<td>M2103</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>At the end of this lesson, the student is able to: •record the number before and after a given 2-digit number •put in order a set of 2-digit numbers •count forwards by 10 to 100 on the decade •count backwards by 10 off the decade •compare using the terms &quot;more than&quot; and &quot;less than&quot; •solve simple addition picture problems and stories in familiar ways •use the symbols &quot;+&quot; and &quot;-&quot; in writing number sentences •add amounts using whole dollars •write various number facts for 20 •show addition using a number line •write known number facts while solving addition problems</td>
<td>Australia</td>
<td>Music center</td>
<td>M2104</td>
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<td></td>
<td>Shape and space</td>
<td>At the end of this lesson, the student is able to: •identify and name cubes, cylinders, cones and spheres •describe 3-dimensional objects by referring to the terms: faces, corners and edges •sort 3-dimensional objects according to a certain attribute</td>
<td>Australia</td>
<td>Truck stop</td>
<td>M2105</td>
</tr>
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<td></td>
<td>Measurement</td>
<td>At the end of this lesson, the student is able to: •determine the mass of 3 objects by lifting •use familiar units to measure mass of an object •compare and describe the mass of more than 2 objects</td>
<td>Australia</td>
<td>Surfing, Beach</td>
<td>M2106</td>
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</table>
| Number      | At the end of this lesson, the student is able to:  
• use fraction notation to show dividing  
• identify the dividing of a whole object into halves and quarters; describe it | Europe | English bus | M2107 |
| Shape and space | At the end of this lesson, the student is able to:  
• flip, turn and slide a 2-dimensional shape in order to display and describe tessellating designs | Europe | Living in the mill | M2108 |
| Number      | At the end of this lesson, the student is able to:  
• write subtraction facts in number sentences  
• show subtraction facts using concrete materials  
• match number sentences to pictorial representations  
• write number sentences using "-" and "=" symbols  
• write various number facts for 10 | Europe | Pizza (Italian) restaurant | M2109 |
| Measurement | At the end of this lesson, the student is able to:  
• associate the number of days that are in each month  
• list the months of the year  
• match these months to the seasons  
• determine the day and date by using a calendar  
• compare temperatures using non-standard units  
• recognize heat in weather situations  
• place temperatures in order | Europe | Russian toy store | M2110 |
| Data        | At the end of this lesson, the student is able to:  
• collect data by conducting a survey  
• classify and sort collected data  
• show data in a simple table  
• use the terms "might happen", "will happen" and "might not happen" to describe change events | Europe | Orange trees, Olive trees | M2111 |
| Number      | At the end of this lesson, the student is able to:  
• write various number combinations for a given number  
• show addition facts using concrete objects  
• show the patterns that can be created for a particular number | Europe | Eiffel tower | M2112 |
| Number      | At the end of this lesson, the student is able to:  
• read and write 3-digit numbers  
• identify the number before and after a particular 3-digit number  
• count backwards by hundreds from a given number from 0 to 1,000  
• count forwards from a given number by ones, tens and hundreds between 0 to 1,000 | Antarctica | Ice-cream shop | M2201 |
| Measurement | At the end of this lesson, the student is able to:  
• measure length using a meter as a unit  
• measure as well as estimate distances and lengths to the nearest meter  
• associate the lengths of objects as being "more than", "less than", or "about the same as" a meter | Antarctica | Igloo | M2202 |
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<tbody>
<tr>
<td>Number</td>
<td>At the end of this lesson, the student is able to: • show addition facts using concrete materials • write various number facts for 20 • produce equal amounts of money using different denominations</td>
<td>Antarctica Penguins</td>
<td>M2203</td>
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<tr>
<td>Shape and space</td>
<td>At the end of this lesson, the student is able to: • copy a simple model • identify 2D shapes as faces of 3D objects • draw and describe an object from a top view, side view and front view</td>
<td>Antarctica Husky sled</td>
<td>M2204</td>
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<tr>
<td>Number</td>
<td>At the end of this lesson, the student is able to: • count forwards by tens from 0 to 1,000 from a given number • read 3-digit numbers • produce a 3-digit number using base ten materials • show equal amounts of money using different denominations</td>
<td>Antarctica Fisher boat</td>
<td>M2205</td>
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<tr>
<td>measurement</td>
<td>At the end of this lesson, the student is able to: • compare time facts to each other • use terms &quot;second&quot;, &quot;minute&quot; and &quot;hour&quot; to tell time • use both analogue and digital clocks to read and write half-hour and o'clock times</td>
<td>Antarctica Fashion store</td>
<td>M2206</td>
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<tr>
<td>Number</td>
<td>At the end of this lesson, the student is able to: • show subtraction as the difference between 2 numbers • subtract whole dollar amounts • find the difference between 2 numbers by counting on or backwards • show subtraction on a number line • make change by subtracting money</td>
<td>Africa Wild park</td>
<td>M2207</td>
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<tr>
<td>Data</td>
<td>At the end of this lesson, the student is able to: • arrange numerous events along a continuum from &quot;unlikely&quot; to &quot;very likely&quot; • use tally marks to record data • make a column graph using a picture to represent one item • interpret the information shown on the column graph</td>
<td>Africa Market place</td>
<td>M2208</td>
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<tr>
<td>Number</td>
<td>At the end of this lesson, the student is able to: • recognize and apply the dividing of a collection of objects into halves • demonstrate sharing of a collection of objects between 2 people • use fraction notation to show sharing and dividing</td>
<td>Africa Bus station</td>
<td>M2209</td>
<td></td>
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<tr>
<td>Number</td>
<td>At the end of this lesson, the student is able to: • understand and use multiplication signs in number sentences • count by two's, threes, fours and tens • find the total number of objects in groups or rows using repeated addition • represent multiplication as equal groups • use skip counting to find total number of objects in a particular arrangement</td>
<td>Africa Music,Dance performance</td>
<td>M2210</td>
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<tr>
<td>Lesson Icon</td>
<td>Subject / Tags</td>
<td>Learning goals</td>
<td>continent</td>
<td>theme</td>
<td>Lesson code</td>
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</tbody>
</table>
| ![Shape and space](image1.png) | Shape and space | At the end of this lesson, the student is able to:  
- make symmetrical designs with pattern blocks, paintings or drawings  
- draw a single line of symmetry on designated shapes  
- name the arms and vertex of an angle in a corner | Africa | Traditional African village | M2211 |
| ![Shape and space](image2.png) | Shape and space | At the end of this lesson, the student is able to:  
- draw a path on a simple plan  
- follow instructions  
- identify the position of an object in a drawing  
- use a number line to make a number pattern  
- use constant addition and subtraction on a calculator when entering a given number  
- provide the next number in an increasing or decreasing pattern and explain how it was determined | Africa | Group of Pyramids | M2212 |
| ![Number](image3.png) | Number | At the end of this lesson, the student is able to:  
- count forwards by ones, twos, threes, fives and tens from any number  
- design a number pattern that increases or decreases  
- describe the place value of digits in a 3-digit number  
- represent a 3-digit number using words  
- refer to ordinal names from 1st to 5th | North America | Movie theater | M2301 |
| ![Measurement](image4.png) | Measurement | At the end of this lesson, the student is able to:  
- compare daily temperatures; record them  
- use identical units to cover each area being compared  
- make a comparison of 2 or more objects using informal units | North America | Hamburger restaurant | M2302 |
| ![Number, pattern and function](image5.png) | Number, pattern and function | At the end of this lesson, the student is able to:  
- solve addition and subtraction problems by recalling known number facts  
- find related addition and subtraction number sentences  
- use familiar contexts to design and solve addition and subtraction stories and pictures problems  
- locate and describe the relationship between addition and subtraction facts  
- write various number facts for 10  
- add whole dollar amounts  
- write various number facts for 20  
- show addition using a number line  
- bridge to ten to help with addition | North America | Native American village | M2303 |
| ![Number](image6.png) | Number | At the end of this lesson, the student is able to:  
- make and describe the dividing of a collection of objects between 4 people  
- make and describe the dividing of a collection of objects into quarters  
- record sharing and dividing by using fraction notation | North America | Halloween | M2304 |
| ![measurement](image7.png) | Measurement | At the end of this lesson, the student is able to:  
- use analogue and digital clocks to read "half-hour" and "o'clock" times  
- use terms "minute" and "hour" to tell time  
- order 2 or more activities in terms of the time taken to finish them; make comparisons | North America | Baseball | M2305 |
<table>
<thead>
<tr>
<th>Lesson Icon</th>
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<th>continent</th>
<th>theme</th>
<th>Lesson code</th>
</tr>
</thead>
</table>
| ![Shape and space](image) | Shape and space | At the end of this lesson, the student is able to:  
• locate and name parallel lines  
• draw a 2-dimensional shape in various orientations  
• name rhombuses and trapeziums presented in various orientations | North America | School bus | M2306 |
| ![Number](image) | Number | At the end of this lesson, the student is able to:  
• count by fives  
• find the total number of objects in an arrangement using skip counting  
• make and describe multiplications as equal groups  
• name and use multiplication signs in number sentences | Asia | Food market | M2307 |
| ![Measurement](image) | Measurement | At the end of this lesson, the student is able to:  
• determine the masses of 2 or more objects using comparative language  
• put in order the masses of 3 objects by lifting  
• measure mass of an object using ordinary units  
• measure and order the masses of 2 objects using an informal measure  
• take 3 objects and order the mass by hefting and checks using an equal arm balance  
• determine the difference in mass between 2 objects  
• pack various sized rectangular boxes with identical informal units  
• document the capacity as far as the number and type of unit used  
• use a photograph to describe the position of an object | Asia | Rice field | M2308 |
| ![Number](image) | Number | At the end of this lesson, the student is able to:  
• use drawings, numerals and symbols to record division problems  
• read and use division signs in number sentences  
• distribute a collection of objects into equal groups to show division | Asia | Riksjas ,toek toek | M2309 |
| ![Shape and space](image) | Shape and space | At the end of this lesson, the student is able to:  
• find and name groups of 3-dimensional objects such as pyramids, cylinders, prisms, cones and spheres  
• compare the features of groups of pyramids, cylinders, prisms, cones and spheres  
• use drawings and photographs and locate the 3-dimensional objects | Asia | Tea store | M2310 |
| ![Data](image) | Data | At the end of this lesson, the student is able to:  
• collect data to answer a question  
• use tally marks to record data  
• make a column graph using one picture or object to represent one item  
• use column graphs to interpret the information | Asia | Elephants plant | M2311 |
| ![Number](image) | Number | At the end of this lesson, the student is able to:  
• recall multiplication facts for 2, 3, 5 and 10 using number patterns  
• read and use multiplication signs in number sentences  
• solve multiplication questions by using a hundred chart  
• use the commutative property of multiplication  
• show number patterns by using a hundred chart  
• build addition facts by identifying patterns | Asia | Dojo | M2312 |
## Grade 2

<table>
<thead>
<tr>
<th>Subject / Tags</th>
<th>Learning goals</th>
<th>continent</th>
<th>theme</th>
<th>Lesson code</th>
</tr>
</thead>
</table>
| Number        | At the end of this lesson, the student is able to:  
• count forward by tens on the decade  
• count forward from any number by twos, threes and fives  
• find the smallest or largest number given by any three one-digit numbers  
• explain patterns for even and odd numbers  
• give the next number in an increasing pattern; show how it was determined  
• locate a missing number in a number pattern; show how it was determined  
• describe patterns of addition facts (ex: even number + even number = even number) | South America | Inca temple | M2401 |
| Measurement   | At the end of this lesson, the student is able to:  
• use meters to measure length of objects  
• use centimeters to measure length of objects  
• use the abbreviations for both meter (m) and centimeter (cm)  
• estimate lengths to the nearest meter or half-meter; and then measure them | South America | Amazone river boat trip | M2402 |
| Number        | At the end of this lesson, the student is able to:  
• write addition facts in number sentences  
• add whole dollar amounts  
• bridge to ten to help with addition | South America | Lama farm | M2403 |
| Data          | At the end of this lesson, the student is able to:  
• make a column graph using a picture or object to represent one item  
• identify and label axes on a graph  
• show the data display that was made  
• interpret the information in a column graph  
• predict and record all the possible strand and pointer in an experiment or simple situation | South America | Carnival parade in Rio | M2404 |
| Shape and space | At the end of this lesson, the student is able to:  
• locate 3-dimensional objects in the environment  
• describe features of various groups of 3-dimensional objects; compare them  
• develop models of 3-dimensional objects when given a photograph or drawing to view  
• identify an object from a side view, a front view and a top view | South America | Street orchestra | M2405 |
| Number        | At the end of this lesson, the student is able to:  
• count by twos, threes and fives  
• guess the number of objects in a group and then count to check  
• use the commutative property for multiplication  
• calculate the total by adding money  
• skip count along a number line | South America | Soccer stadium | M2406 |
| Number        | At the end of this lesson, the student is able to:  
• explain the dividing of a collection into halves  
• explain the dividing of a collection into quarters  
• measure the mass of an object by using a suitable informal unit  
• find 2 collections of objects having the same mass by using a balance  
• use an informal unit to measure and put in order the mass of 2 objects  
• interpret data from a column graph | Phantasia continent | Castle in the clouds | M2407 |
<table>
<thead>
<tr>
<th>Lesson Icon</th>
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<th>Learning goals</th>
<th>continent</th>
<th>theme</th>
<th>Lesson code</th>
</tr>
</thead>
</table>
|             | Number         | At the end of this lesson, the student is able to:  
• count by twos, threes, fours and fives  
• solve division questions using a number line  
• read and apply division signs in number sentences | Phantasia | Singing Angels | M2408 |
|             | Measurement    | At the end of this lesson, the student is able to:  
• make comparison of volume of 2 objects by recording the change in water level when objects are submerged  
• take the same object and submerge it, using different shapes, and note the changes in water level  
• identify the appropriateness of certain informal units | Phantasia | World of Fish | M2409 |
|             | Number         | At the end of this lesson, the student is able to:  
• subtract whole dollar amounts  
• write number facts for 20  
• find the difference by counting "on" or "back"  
• subtract money to make change  
• remember known number facts when solving subtraction problems  
• subtract 2 numbers, without trading, use concrete objects  
• perform subtraction using a written algorithm | Phantasia | Wizards, Harry Potter | M2410 |
|             | Measurement    | At the end of this lesson, the student is able to:  
• use analogue and digital clocks to read “half-hour” and “o’clock” times  
• put 2 or more activities in order based on the time taken to complete them; then compare | Phantasia | Treasure Island | M2411 |
|             | Shape and space| At the end of this lesson, the student is able to:  
• perform simple experiments using random generators, record the results  
• use a simple chance experiment to predict possible strand and pointers  
• draw a path on a simple plan to show a desired route | Phantasia | Dinosaurs | M2412 |
### Grade 3

<table>
<thead>
<tr>
<th>Lesson Code</th>
<th>Subject / Tags</th>
<th>Learning goals</th>
<th>continent</th>
<th>theme</th>
<th>Lesson code</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3101</td>
<td>Numbers</td>
<td>At the end of this lesson, the student will be able to:</td>
<td>Australia</td>
<td>Sheep farm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• read and write 3-digit numbers</td>
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<td>M3101</td>
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<td></td>
<td></td>
<td>• explain the place value of a digit in 3-digit numbers</td>
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<td></td>
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<td>• count by tens and hundreds in the range of 0 to 1,000, both forwards and</td>
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<td></td>
<td></td>
<td>backwards</td>
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<td></td>
<td></td>
<td>• write 3-digit numbers in expanded notation</td>
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<td></td>
<td>• put in order a set of 3-digit numbers in ascending order</td>
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<tr>
<td>M3102</td>
<td>Addition</td>
<td>At the end of this lesson, the student will be able to:</td>
<td>Australia</td>
<td>BBQ party</td>
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<td></td>
<td></td>
<td>• count forwards and backwards by fives and tens</td>
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<td>M3102</td>
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<tr>
<td></td>
<td></td>
<td>• locate patterns for addition</td>
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<td>• perform mental addition using the jump strategy</td>
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<td>• use doubles and near doubles to add</td>
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<td>• solve addition problems that involve money</td>
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<td></td>
<td>• identify odd and even numbers and locate patterns to formulate rules</td>
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<tr>
<td>M3103</td>
<td>Subtraction</td>
<td>At the end of this lesson, the student will be able to:</td>
<td>Australia</td>
<td>Snorkeling great barrier  reef</td>
<td>M3103</td>
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<td></td>
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<td>• perform mental subtraction by using the split strategy</td>
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<td>• solve subtraction problems that involve money</td>
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<td>• create subtraction problems and then find the answers</td>
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<td>• extend number facts with the use of patterns</td>
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<td>• link addition and subtraction</td>
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<td>• solve subtraction problems by using an empty number line</td>
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<td>• solve subtraction problems and work the answers</td>
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<tr>
<td>M3104</td>
<td>Fractions</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Australia</td>
<td>Music Center</td>
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<tr>
<td></td>
<td></td>
<td>• rename two halves and four quarters as one whole</td>
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<td>M3104</td>
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<tr>
<td></td>
<td></td>
<td>• identify equivalence between quarters and halves</td>
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<td>• identify fractions with denominators of two and four</td>
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<td></td>
<td>• describe quarters and halves</td>
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<td></td>
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<td>• describe the numerator and denominator of a fraction</td>
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<td>• describe the denominator as the number of equal parts for which the whole was divided</td>
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<tr>
<td>M3105</td>
<td>Time, clocks</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Australia</td>
<td>Truck stop</td>
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<td></td>
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<td>• compare time facts to each other:</td>
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<td>M3105</td>
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<td></td>
<td></td>
<td>&quot;second&quot;, &quot;minute&quot; and &quot;hour&quot; to tell time</td>
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<td>• use both analogue and digital clocks to read and write half-hour and o'clock times</td>
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<tr>
<td>M3106</td>
<td>Pattern and</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Australia</td>
<td>Surfing, Beach</td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>function</td>
<td>• count forwards by fours beginning from zero</td>
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<td>M3106</td>
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<tr>
<td>function</td>
<td></td>
<td>• count forwards by fours describing and writing the number pattern</td>
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<td></td>
<td></td>
<td>• create number patterns</td>
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<td>• extend number patterns</td>
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<td>• inquire about how patterns were made and be able to extend them</td>
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<td>• use diagrams to show and record number patterns</td>
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<td>• locate missing elements in number patterns</td>
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<td>• represent number patterns using a hundred chart</td>
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<td>• repeat a process to finish number patterns</td>
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<td>• make number patterns by increasing and decreasing</td>
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</tr>
<tr>
<td>M3107</td>
<td>Length, Measurement</td>
<td>At the end of this lesson, the student is able to:</td>
<td>Europe</td>
<td>English bus</td>
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<tr>
<td></td>
<td></td>
<td>• use abbreviations for meter and centimeter</td>
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<td>M3107</td>
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<tr>
<td></td>
<td></td>
<td>• use centimeters to measure and compare lengths</td>
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<tr>
<td></td>
<td></td>
<td>• use meters to measure and compare lengths</td>
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<td></td>
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<td>• recognize when a smaller unit than a meter is needed</td>
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<td>• guess length by referring to a familiar length</td>
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<tr>
<td>Lesson Icon</td>
<td>Subject / Tags</td>
<td>Learning goals</td>
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<td>Lesson code</td>
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</tbody>
</table>
| ![Time Icon] | Time | At the end of this lesson, the student is able to:  
• understand 60 minutes equals 1 hour  
• read clocks to 5 minutes  
• understand how many minutes it takes for the minute hand to go from one numeral to the next  
• compare digital and analogue notation  
• associate the numerals 3, 6 and 9 with 15, 30 and 45 minutes  
• understand the coordinated movement of the minute and hour hands on a clock | Europe | Living in the mill | M3108 |
| ![3D shapes, space Icon] | 3D shapes, space | At the end of this lesson, the student is able to:  
• identify 3D objects as prisms and pyramids, and name them  
• understand the differences as well as similarities between prisms and pyramids  
• describe the features of prisms and pyramids, and compare  
• describe the features of cylinders, spheres and cones, and compare  
• identify cylinders, spheres and cones, and name them  
• draw prisms, cones, pyramids, cylinders and spheres | Europe | Pizza (Italian) restaurant | M3109 |
| ![Data Icon] | Data | At the end of this lesson, the student is able to:  
• present given data in more than one way  
• use graphs to interpret and use information  
• explain the likelihood of an event that occurs in routine situations  
• predict and record all possible outcomes of a simple chance experiment  
• distinguish between uncertain and certain events | Europe | Russian toy store | M3110 |
| ![Repetition M3101-M3110 Icon] | Repetition M3101-M3105 | After the end of this lesson, the student is able to:  
• Count forwards and backwards by tens and hundreds in the range 0-1000  
• Recognize odd and even numbers and look for patterns to formulate rules  
• Solve subtraction problems including those involving money  
• Model halves and quarters  
• Interpret the numerator and denominator of a fraction | Europe | Orange trees, Olive trees | M3111 |
| ![Repetition M3106-M3110 Icon] | Repetition M3106-M3110 | After the end of this lesson, the student is able to:  
• Extend number patterns  
• Find missing elements in number patterns  
• Measure and compare lengths using meters  
• Use abbreviations for meter and centimeter  
• Interpret and use information presented in graphs | Europe | Eiffel tower | M3112 |
| ![Two- and three digit numbers Icon] | Two- and three digit numbers | At the end of this lesson, the student is able to:  
• read 2 and 3-digit numbers  
• identify which number is one more and one less than a given number  
• explain 2 and 3-digit numbers  
• use words to write numbers  
• put numbers in ascending and descending order  
• write numbers from words  
• use numeral expanders to find place value  
• locate place value of digits in a 3-digit number  
• match numbers using words and numerals | Antarctica | Ice-cream shop | M3201 |
<table>
<thead>
<tr>
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<th>continent</th>
<th>theme</th>
<th>Lesson code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - use concrete materials to add or subtract addition problems - solve addition problems which involve money - use a written algorithm to solve addition problems - add 2 numbers without trading - use estimation - perform mental addition using the compensation strategy - work backwards to solve a problem</td>
<td>Antarctica</td>
<td>Igloo</td>
<td>M3202</td>
<td></td>
</tr>
<tr>
<td>Subtraction</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - understand known number facts to 20 - solve subtraction problems which involve money - mentally solve subtraction problems - subtract using the count-on strategy - identify patterns - extend number facts using patterns - use split strategy for mental subtraction - use jump strategy for mental subtraction</td>
<td>Antarctica</td>
<td>Penguins</td>
<td>M3203</td>
<td></td>
</tr>
<tr>
<td>Subtraction</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - perform mental subtraction using the compensation strategy - seek out patterns that help with subtraction - use concrete materials to subtract 2 numbers without trading - link addition to subtraction - use mental strategies to solve subtraction problems - solve subtraction problems</td>
<td>Antarctica</td>
<td>Husky sled</td>
<td>M3204</td>
<td></td>
</tr>
<tr>
<td>Hundredths</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - name hundredths; compare them - understand the denominator as the number of equal parts a whole has been divided into - show hundredths as decimals - show decimal notation for hundredths - put in order fractions with the same denominator; compare</td>
<td>Antarctica</td>
<td>Award show</td>
<td>M3205</td>
<td></td>
</tr>
<tr>
<td>Multiplication tables 3 and 6</td>
<td>Subject / Tags: At the end of this lesson, the student knows and is able to work with: - the multiplication table for 3 and for 6, up to and including 10 x 3 and 10 x 6.</td>
<td>Antarctica</td>
<td>Fashion store</td>
<td>M3206</td>
<td></td>
</tr>
<tr>
<td>Patterns</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - use whole numbers to create various patterns - extend number patterns - use the pattern rule to calculate numbers - use diagrams to show number patterns - solve problems by searching for patterns</td>
<td>Africa</td>
<td>Wild park</td>
<td>M3207</td>
<td></td>
</tr>
<tr>
<td>Temperature, Time, Measurement</td>
<td>Subject / Tags: At the end of this lesson, the student is able to: - link temperatures to everyday happenings - read informal scales on a thermometer - compare temperatures - identify the temperature at the boiling point and freezing point</td>
<td>Africa</td>
<td>Market place</td>
<td>M3208</td>
<td></td>
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### Grade 3

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<tr>
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</tr>
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</table>
| ![2D shapes, polygons](image) | continent | At the end of this lesson, the student is able to:  
• determine the features of 2-dimensional shapes; compare  
• draw and name 2-dimensional shapes  
• identify names of special polygons  
• identify and name pentagons and octagons  
• draw and name parallel lines  
• identify and name trapeziums and parallelograms  
• understand that a given shape can be represented in various orientations | Africa | Bus station | M3209 |
| ![Graphs and Venn and Carroll diagrams, Data](image) | continent | At the end of this lesson, the student is able to:  
• show data in a simple table  
• write appropriate titles and labels for graphs  
• interpret the information shown in bar and picture graphs  
• identify information given in table form  
• show information using a vertical bar graph  
• find various ways to present information | Africa | Music.Dance performance | M3210 |
| ![Repetition](image) | continent | After taking this lesson, student is able to:  
• Use known number facts to 20  
• Solve subtraction problems mentally  
• Solve subtraction problems including those involving money  
• Name and compare hundredths  
• Express hundredths as decimals  
• Interpret decimal notation for hundredths | Africa | Traditional African village | M3211 |
| ![Repetition](image) | continent | After taking this lesson, student is able to:  
• Compare and describe features of two-dimensional shapes (polygons, pentagons, octagons, parallelogram, trapezium)  
• Read informal scales on a thermometer  
• Compare temperatures  
• Recognise temperatures for boiling point and freezing point | Africa | Group of Pyramids | M3212 |
| ![Tables for 3, 4, 6, 9 and 10](image) | continent | At the end of this lesson, the student can work with:  
• Table for the numbers 3, 4, 6, 9 and 10  
• From [number] x 1 all up to and including [number] x 10. | North America | Movie theater | M3301 |
| ![Multiplication](image) | continent | At the end of this lesson, the student is able to:  
• perform multiplication facts  
• find the connection between addition and multiplication  
• state multiplication number facts for 4, 6, 9 and 10  
• describe multiplication as the product of 2 or more numbers  
• perform multiplication algorithms vertically and horizontally  
• use multiplication to solve simple word problems | North America | Hamburger restaurant | M3302 |
| ![Division](image) | continent | At the end of this lesson, the student is able to:  
• understand the meaning of fair shares  
• show fair shares of given numbers  
• use division strategies to solve problems  
• use equal groups to solve division problems  
• calculate answers to division problems using mental strategies  
• use equal groups to present own division problems  
• solve division problems by drawing a diagram  
• record remainders to division problems in words | North America | Native American village | M3303 |
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<tr>
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</table>
| **Money** | At the end of this lesson, the student is able to:  
• use addition and subtraction of money to solve problems  
• explain how certain notes could be used to cover total price of an item  
• explain how certain coins could be used to cover total price of an item  
• appropriately use a calculator to solve problems  
• understand the value of bank notes and coins  
• show number and value of coins that equal a given amount  
• round to the nearest 5c or dollar | North America | Halloween | M3304 |
| **Fractions** | At the end of this lesson, the student is able to:  
• locate equivalence between fractions  
• compare commonly used fractions  
• refer to a diagram to place order to fractions  
• show fractions as parts of a whole object  
• rename fractions  
• draw diagrams to show fractions  
• locate fractions as part of a group  
• relate fractions to everyday situations | North America | Baseball | M3305 |
| **Number patterns** | At the end of this lesson, the student is able to:  
• use words to show a simple number pattern  
• find the missing term in a number pattern  
• generate number patterns using a calculator  
• generate multiplication facts by recognizing and describing patterns  
• document number patterns in tables to show order of items  
• show number patterns using a hundred chart  
• complete number patterns and show the rules  
• use associative property of multiplication | North America | School bus | M3306 |
| **Length and Area** | At the end of this lesson, the student is able to:  
• understand the need for units smaller than a centimeter  
• use abbreviations of centimeter (cm) and millimeter (mm)  
• use centimeters and millimeters to measure lengths  
• draw the measured lengths | Asia | Food market | M3307 |
| **Angles** | At the end of this lesson, the student is able to:  
• explain angles using everyday language as well as the term right angle  
• find the angles in basic situations  
• draw angles that are larger and smaller than the given angle  
• locate right angles as well as angles bigger and smaller than right angles  
• use informal tools such as an angle tester to compare angles | Asia | Rice field | M3308 |
| **Position** | At the end of this lesson, the student is able to:  
• show the location of an object using more than one descriptor  
• use and follow positional language  
• find objects from directions using two descriptors  
• identify a path/route on a simple map or plan  
• use a simple plan to draw a route  
• use directional language | Asia | Riksjas , toek toek | M3309 |
| **Data and Chance** | At the end of this lesson, the student is able to:  
• make vertical bar graphs  
• interpret data shown in horizontal bar graphs  
• interpret and use data shown in a table  
• represent the same data in various ways  
• collect information using tally marks  
• collect data by conducting surveys | Asia | Tea store | M3310 |
<table>
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<tr>
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</thead>
</table>
| Repetition M3301-M3305 | After taking this lesson, student is able to:  
• Describe multiplication as the product of two or more numbers  
• Solve simple word problems using multiplication  
• Use mental strategies to calculate answers to division problems  
• Understand the meaning of fair shares  
• Make fair shares of given numbers  
• Model fractions as parts of a whole object  
• Relate fractions to everyday situations | Asia | Elephants plant | M3311 |
| Repetition M3306-M3310 | After taking this lesson, student is able to:  
• Determine a missing term in a number pattern  
• Identify angles in practical situations  
• Describe angles using everyday language and the term right angle  
• Identify angles as right angles and as being bigger and smaller than right angles | Asia | Dojo | M3312 |
| Three-digit numbers | At the end of this lesson, the student is able to:  
• Identify 3-digit numbers  
• Identify 3-digit numbers before and after a given number  
• Put numbers in ascending and descending order  
• Make the smallest and largest number given any 3 digits  
• Use symbols for greater than and less than to show the relationship between the 2 numbers  
• Round numbers to nearest 10 and nearest 100  
• Explain place values of digits in 3-digit numbers | South America | Inca temple | M3401 |
| Tables of 7 and 8 | After the end of this lesson, the student knows:  
• Table for the numbers 7 and 8  
• From [number] x 1 all up to and including [number] x 10. | South America | Amazon river boat trip | M3402 |
| Multiplication | At the end of this lesson, the student is able to:  
• Remember multiplication number facts for all tables  
• Remember or work through multiplication facts up to 10x10 including zero  
• Understand the term "product"  
• List multiples for given numbers  
• Find solutions to multiplication problems, with one-digit operators, using calculator as well as written strategies  
• Find the operation needed to solve a problem  
• Produce multiplication problems | South America | Lama farm | M3403 |
| Division | At the end of this lesson, the student is able to:  
• Use multiplication facts to locate division facts  
• Recall division facts for 5, 10 and 20  
• Find the operation required to solve a problem  
• Calculate solutions to division problems using mental strategies  
• Show multiplication and division number facts  
• Write remainders to division problems in words | South America | Carnival parade in Rio | M3404 |
<table>
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<tbody>
<tr>
<td><img src="image1" alt="Fractions and Decimals" /></td>
<td>Fractions and Decimals</td>
<td>At the end of this lesson, the student is able to: •using hundred squares, find equivalence between fractions and decimals •using diagrams, find equivalence between fractions and decimals •name, compare and put in order fifths and tenths •name, compare and put in order hundredths •show where fifths and tenths belong on the number line •identify fractions from diagrams •draw a diagram to show given fractions •interpret a calculator display in the context of the problem •relate decimal knowledge to money</td>
<td>South America</td>
<td>Street orchestra</td>
<td>M3405</td>
</tr>
<tr>
<td><img src="image2" alt="Number relationships" /></td>
<td>Number relationships</td>
<td>At the end of this lesson, the student is able to: •produce numbers for a number pattern •solve various problems using a variety of patterns •apply commutative law for multiplication and addition •find generalizations regarding numbers and relationships •create patterns using concrete materials •use diagrams and numbers to model and write number patterns</td>
<td>South America</td>
<td>Soccer stadium</td>
<td>M3406</td>
</tr>
<tr>
<td><img src="image3" alt="Mass and timetables" /></td>
<td>Mass and timetables</td>
<td>At the end of this lesson, the student is able to: •identify the need for a formal unit to measure mass •use hefting to find objects that are more than, less than and the same as a kilogram •measure mass by using the kilogram as a unit •estimate the mass of an object by comparing to a known mass •write the mass of an object by using kilogram abbreviation (kg) •put in order the mass of several objects from lightest to heaviest</td>
<td>Phantasia continent</td>
<td>Castle in the clouds</td>
<td>M3407</td>
</tr>
<tr>
<td><img src="image4" alt="Symmetry" /></td>
<td>Symmetry</td>
<td>At the end of this lesson, the student is able to: •locate all lines of symmetry for a given shape •finish symmetrical drawings on a line of symmetry •locate symmetrical shapes •use slide, flip and turn to repeat shapes in a pattern</td>
<td>Phantasia continent</td>
<td>Singing Angels</td>
<td>M3408</td>
</tr>
<tr>
<td><img src="image5" alt="position and mapping" /></td>
<td>position and mapping</td>
<td>At the end of this lesson, the student is able to: •interpret simple maps •draw a path on a simple plan •describe the location of an object by using N, S, E and W •follow directional language •represent North on a map by using an arrow •describe position by using simple coordinates</td>
<td>Phantasia continent</td>
<td>World of Fish</td>
<td>M3409</td>
</tr>
<tr>
<td><img src="image6" alt="Data and Chance" /></td>
<td>Data and Chance</td>
<td>At the end of this lesson, the student is able to: •differentiate between certain and uncertain events •order events from most likely to least likely •guess the probability of events occurring •predict and write all possible combinations •predict and write possible outcomes in a simple change experiment</td>
<td>Phantasia continent</td>
<td>Wizards, Harry Potter</td>
<td>M3410</td>
</tr>
<tr>
<td><img src="image7" alt="Repetition" /></td>
<td>Repetition M3401-M3405</td>
<td>At the end of this lesson, the student is able to: •Perform multiplication for all tables up to and including 10 •Perform division for numbers 2, 5 and 10 •Compare decimals and fractions and calculate fractions using diagrams •Identify and order three-digit numbers</td>
<td>Phantasia continent</td>
<td>Treasure island</td>
<td>M3411</td>
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</table>
| ![Lesson Icon](image) | Repetition M3406-M3410 | At the end of this lesson, the student is able to:  
• Recognise and explain the need for a formal unit to measure mass  
• Use the kilogram as a unit to measure mass  
• Use hefting to identify objects that are more than, less than, and the same as a kilogram  
• Find all lines of symmetry for a given shape  
• Complete symmetrical drawings on line of symmetry  
• Identify symmetrical shapes  
• Use flip, slide and turn to repeat shapes in a pattern | Phantasia continent | Dinosaurs | M3412 |
<table>
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</table>
| Numbers | At the end of this lesson, the student is able to:  
• Count by tens and hundreds on and off the decade forwards as well as backwards  
• Read 3 and 4-digit numbers  
• Locate smallest and largest numbers in a group  
• Show 4-digit numbers using objects and words  
• Use the Draw-A-Diagram method to solve problems  
• Write 3 and 4-digit numbers from words  
• Count on and back by one thousand  
• Put numbers in ascending and descending order  
• Comprehend the relationship between 2 numbers | Australia | Sheep farm | M4101 |
| Addition | At the end of this lesson, the student is able to:  
• Solve addition problems by using a calculator  
• Solve addition problems by referring to known number facts  
• Add 2-digit numbers using mental strategies  
• Mentally add by using jump split and compensation strategies  
• Add using doubles and near doubles  
• Use an empty number line to show and solve addition problems  
• Use a written algorithm to solve addition problems  
• Use concrete materials to add 2 numbers with trading  
• Use a "working backwards" method to solve problems | Australia | BBQ party | M4102 |
| Substraction | At the end of this lesson, the student is able to:  
• Extend number facts by using patterns  
• Perform mental subtraction using jump and compensation strategies  
• Perform subtraction problems  
• Show problems that can be solved using subtraction  
• Represent and solve subtraction problems using an empty number line  
• Explain how the answer was reached for a subtraction problem  
• Subtract 3-digit numbers with no trading  
• Use the inverse relationship of addition and subtraction to solve problems  
• Reflect on own method of solution to a problem | Australia | Snorkeling great barrier reef | M4103 |
| Fractions and Decimals | At the end of this lesson, the student is able to:  
• Name the fractions up to one whole  
• Using a collection of objects, be able to calculate unit fractions  
• In descending order, be able to put in order decimals with 2 decimal places  
• Use the number line and place decimals with 2 decimal places  
• Show hundredths as a fraction and decimal  
• Write money using decimal points  
• Add and subtract numbers with 2 decimal places | Australia | Music Center | M4104 |
| Pattern and function | At the end of this lesson, the student is able to:  
• Show number patterns using a hundred chart  
• Explain a simple number pattern using words  
• Produce number patterns  
• Write a rule for a number pattern and complete terms  
• Write a variety of number patterns that increase or decrease, record them  
• Use a calculator to make a variety of patterns using whole numbers and decimals  
• Write patterns that were created by using the constant function on a calculator  
• Locate and discuss generalizations about multiplying and dividing by one  
• Use the "looking for patterns" strategy to solve problems | Australia | Truck stop | M4105 |
| Length | At the end of this lesson, the student is able to:  
• Use centimeters and meters to record lengths  
• Use decimal notation to 2 decimal places to record length  
• Guess the lengths using centimeters, meters and millimeters  
• Describe total distance around a shape by using the term perimeter  
• Understand length units to be used when measuring  
• Use abbreviation of millimeter  
• Locate the perimeters of 2-dimensional shapes | Australia | Surfing, Beach | M4106 |
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</table>
| Calender and Time | | At the end of this lesson, the student is able to:  
• Understand that one minute equals 60 seconds  
• Relate time facts to each other  
• Understand it takes 60 seconds for the 2nd hand to complete a revolution  
• Find which hour has passed when the hour hand is not pointing to a numeral  
• Compare the time it takes to complete certain activities  
• Tell time to the minute | Europe | English bus | M4107 |
| 3D objects | | At the end of this lesson, the student is able to:  
• Describe the features of pyramids, prisms, cones, cylinders and spheres; then compare  
• Draw cross-sections of 3-dimensional objects; then describe  
• Attempt to show depth by drawing 3-dimensional objects  
• Produce a model using a drawing of a 3D object  
• Create and identify nets of 3D objects | Europe | Living in the mill | M4108 |
| Data and chance | | At the end of this lesson, the student is able to:  
• Interpret picture graphs  
• Use a simple table to present data; then interpret data  
• Name a graph and label axes  
• Make bar graphs using one-on-one correspondence | Europe | Pizza (Italian) restaurant | M4109 |
| Data and chance | | At the end of this lesson, the student is able to:  
• Predict and make a list of all possible outcomes in a simple chance experiment  
• Perform simple experiments with random generators to encourage discussion about the likelihood of outcomes  
• Compare the difference between expected results and actual results  
• Use the language of change in everyday situations | Europe | Russian toy store | M4110 |
| Repetition M4101-M4105 | | At the end of this lesson, the student is able to:  
• Identify 4-digit numbers with given numerals  
• Place numbers in ascending and descending order  
• Comprehend relationships between given numbers  
• Write 4-digit numbers in expanded notation Discuss place value using a 4-digit numeral expander  
• Discuss place value of a given digit in a 4-digit number  
• Use ordinal numbers to discuss position | Europe | Orange trees, Olive trees | M4111 |
| Repetition M4106-M4110 | | At the end of this lesson, the student is able to:  
• Read clocks to the minute  
• Use the term perimeter to describe the total distance around a shape  
• Work out the perimeters of two-dimensional shapes  
• Record length using centimeters and meters  
• Record length using decimal notation to two decimal places | Europe | Eiffel tower | M4112 |
| Four-digit numbers | | At the end of this lesson, the student is able to:  
• Identify 4-digit numbers with given numerals  
• Place numbers in ascending and descending order  
• Comprehend relationships between given numbers  
• Write 4-digit numbers in expanded notation Discuss place value using a 4-digit numeral expander  
• Discuss place value of a given digit in a 4-digit number  
• Use ordinal numbers to discuss position | Antarctica | Ice cream shop | M4201 |
## Math World learning goals overview // e-learning for kids

### Grade 4

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</table>
| ![Multiplication](image1) | Multiplication | At the end of this lesson, the student is able to:  
- Solve multiplication problems by using selected mental and written strategies  
- Complete multiplication facts up to 10x10  
- Use the doubles and doubles doubles strategy to multiply  
- Make a list of multiples of a given number  
- Model multiplication by using arrays  
- Locate factors for a given number  
- Use written algorithm to solve multiplication problems | Antarctica | Igloo | M4202 |
| ![Division](image2) | Division | At the end of this lesson, the student is able to:  
- Identify division number facts to 100/10=10  
- Use division to solve various problems  
- Approximate and work out solutions to division problems using mental strategies  
- Know that the symbol for division denotes division  
- Solve problems by writing division number sentences  
- Write remainders to division problems  
- Apply inverse operations of multiplication and division to check answers  
- Use multiplication facts to gather division facts  
- Find the operation required to solve written problems | Antarctica | Penguins | M4203 |
| ![Money](image3) | Money | At the end of this lesson, the student is able to:  
- Round to nearest five cents or dollar  
- Use addition and subtraction to solve problems, including those involving money  
- Identify which notes are appropriate to cover total price  
- Match the notes that have equivalent value  
- Understand the value of given coins  
- Estimate solution using mental strategies  
- Use estimated solutions and check for accuracy | Antarctica | Husky sled | M4204 |
| ![Decimals](image4) | Decimals | At the end of this lesson, the student is able to:  
- Produce various patterns using whole numbers and decimals on a calculator  
- Create patterns of decimal numbers on a calculator  
- Describe the relationship between multiplication facts  
- Describe in words a simple number pattern  
- After given the first 3 terms, complete a number pattern  
- For both multiplication and addition, be able to apply the associative property | Antarctica | Fisher boat | M4205 |
| ![Pattern and function](image5) | Pattern and function | At the end of this lesson, the student is able to:  
- Produce various patterns using whole numbers and decimals on a calculator  
- Create patterns of decimal numbers on a calculator  
- Describe the relationship between multiplication facts  
- Describe in words a simple number pattern  
- After given the first 3 terms, complete a number pattern  
- For both multiplication and addition, be able to apply the associative property | Antarctica | Fashion store | M4206 |
| ![Capacity](image6) | Capacity | At the end of this lesson, the student is able to:  
- Make comparisons of the capacity of 3 or more containers  
- Make an estimate of the number of cups needed to fill another container  
- Understand the need for smaller units than the liter  
- Compare the liter to common everyday containers  
- Compare the milliliter to common everyday containers  
- Recognize the need for a standard unit to measure volume; explain  
- Use abbreviations for milliliter and liter | Africa | Wild park | M4207 |
| ![2D space](image7) | 2D space | At the end of this lesson, the student is able to:  
- Use measurement to describe the features of 2-dimensional shapes using their attributes  
- Describe why a 2-dimensional shape has a given name  
- Produce tessellating designs by reflecting, rotating and translating a 2-dimensional shape  
- Provide descriptions of designs in terms of flip, slide and turn. | Africa | Market place | M4208 |
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</table>
| Position    | At the end of this lesson, the student is able to:  
• Describe location by using N, S, E, W  
• Describe location by using NE, SE, SW, NW  
• Identify the direction of N, S, E or W after given one direction  
• Identify the directions NE, SE, SW, NW when given one of these directions  
• Describe position when given simple coordinates  
• Place objects given simple coordinates | Africa | Bus station | M4209 |
| Chance and data | At the end of this lesson, the student is able to:  
• Predict all possible outcomes, then record  
• Use the language of chance in common situations; predict and record possible outcomes  
• Show data in various orientations  
• Make vertical and horizontal bar graphs | Africa | Music, Dance performance | M4210 |
| Repetition M4201- M4205 | At the end of the lesson, the student is able to:  
• Order four-digit numbers in ascending and descending order  
• Recall or work out multiplication facts up to 10x10  
• Recall division number facts to 100 / 10 = 10 | Africa | Traditional African village | M4211 |
| Repetition M4206- M4210 | At the end of the lesson, the student is able to:  
• Compare capacity of three or more containers  
• Relate the litre to familiar everyday containers  
• Use N S E W to describe location  
• Determine the direction N, S, E or W given one direction  
• Use NE, SE, SW, NW to describe location  
• Determine the directions NE, SE, SW, NW given one of the directions  
• Use simple coordinates to describe position  
• Place objects given simple coordinates. | Africa | Group of Pyramids | M4212 |
| Numbers to 9999 | At the end of this lesson, the student is able to:  
• Use words to show 4-digit numbers  
• Show relationship between two numbers  
• Put numbers in ascending order  
• Round numbers to nearest thousand  
• Work backwards to solve problems  
• Count by tens and hundreds on and off the decade, both forwards and backwards  
• Show the relationship between numbers by using the symbols < and >  
• Relate large numbers to everyday life  
• Comprehend the place value of digits in a 4-digit number | North America | Movie theater | M4301 |
| Addition | At the end of this lesson, the student is able to:  
• Use trading to add 2-digit numbers  
• Use trading to solve addition problems with 2 and 3-digit numbers  
• Suggest problems that can be solved by using addition  
• Find a solution to a problem using own method  
• Using the original estimation, reflect on the reasonableness of the answer | North America | Hamburger restaurant | M4302 |
| Multiplication | At the end of this lesson, the student is able to:  
• Use a written algorithm to solve multiplication problem  
• Record factors for a given number  
• Use multiplication facts to build patterns  
• Explain that the product is the multiplication of two numbers  
• Calculate solutions to multiplication problems by utilizing written strategies  
• Multiply 1-digit numbers by 2-digit numbers  
• Find solutions to multiplication problems using a calculator  
• Use diagrams to find square numbers | North America | Native American village | M4303 |
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<tr>
<td>Division</td>
<td>At the end of this lesson, the student is able to: • Approximate solutions to division problems using mental strategies • Solve division problems • Obtain solutions to division problems by 1-digit numbers using written strategies • Write remainders to division problems • Check answers by applying the inverse operations of multiplication and division • Use the &quot;working backwards&quot; method to solve division problems • Use written strategies to solve division problems, including those requiring trading of tens</td>
<td>North America</td>
<td>Halloween</td>
<td>M4304</td>
</tr>
<tr>
<td>Fractions and Decimals</td>
<td>At the end of this lesson, the student is able to: • Identify the numerator and denominator of a fraction • Identify the denominator as the number of equal parts • Make a fraction &quot;whole&quot; with the same denominator • Show given fractions by drawing diagrams • Identify mixed fractions diagrammatically • Identify decimals and fractions on a number line • Explain relationship between decimals and fractions • Round a number with one or two decimal places to the nearest whole number</td>
<td>North America</td>
<td>Baseball</td>
<td>M4305</td>
</tr>
<tr>
<td>Money</td>
<td>At the end of this lesson, the student is able to: • Understand the value of coins and notes • Find the appropriate coins or notes that can be used to cover the total price • Determine total price by rounding to the nearest five cents or dollar • Solve addition or subtraction problems, including those involving money</td>
<td>North America</td>
<td>School bus</td>
<td>M4306</td>
</tr>
<tr>
<td>Pattern and function</td>
<td>At the end of this lesson, the student is able to: • Record equal number relationships using equal signs • Find the truth of a number sentence by checking the value of each side • Finish the number patterns using decimals and fractions • Finish number sentences involving one operation by calculating missing numbers • Present patterns in tables to show the order of each term in the pattern</td>
<td>Asia</td>
<td>Food market</td>
<td>M4307</td>
</tr>
<tr>
<td>Mass/Time</td>
<td>At the end of this lesson, the student is able to: • Explain the relationship between grams and kilograms • Use the abbreviation for gram to write the mass of an object • Convert between grams and kilograms • Understand the scale reading kilograms and grams • Measure the mass of an object in both grams and kilograms • Approximate the number of similar objects that have a total mass of 1kg; then do a check • Compare time facts to each other</td>
<td>Asia</td>
<td>Rice field</td>
<td>M4308</td>
</tr>
<tr>
<td>2D space</td>
<td>At the end of this lesson, the student is able to: • Draw symmetrical shapes • Locate all lines of symmetry for a given shape • Complete patterns on an axis of symmetry • Differentiate between shapes having one or more than one axis of symmetry • Draw tessellating designs • Understand which shapes will tessellate • Design a tessellating shape</td>
<td>Asia</td>
<td>Riksjas ,toek loek</td>
<td>M4309</td>
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<tr>
<td>Lesson Icon</td>
<td>Subject / Tags</td>
<td>Learning goals</td>
<td>Continent</td>
<td>Theme</td>
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| Data        |                | At the end of this lesson, the student is able to:  
• Collect data by conducting a survey  
• Present data in a simple table  
• Show all possible outcomes in a simple chance situation  
• Interpret data and display on a bar graph  
• Explain a given bar graph  
• Suggestion questions that can be answered from a given graph  
• Give a graph an appropriate title as well as label the axes  
• Interpret and use information show on two-way tables | Asia | Tea store | M4310 |
| Repetition M4301-M4305 | After taking this lesson, student is able to:  
• Represent four-digit numbers using words  
• Order numbers in ascending order  
• Round numbers to the nearest thousand  
• Multiply two-digit numbers by one-digit numbers  
• Find square numbers using diagrams  
• Use written strategies to calculate solutions to division problems by one digit-numbers  
• Solve division problems | Asia | Elephants plant | M4311 |
| Repetition M4306-M4310 | At the end of this lesson the student is able to:  
• Describe value of notes and coins,  
• Describe appropriate notes or coins that can be used to cover total price,  
• Solve addition or subtraction problems including those involving money  
• Round to the nearest five cents or dollar to determine total price | Asia | Dojo | M4312 |
| Numbers to 9999 | At the end of this lesson, the student is able to:  
• Read 4-digit numbers  
• Use numerals to show 4-digit numbers  
• Understand the place value of digits in a 4-digit number  
• Record the place value of digits in a 4-digit number  
• Make 4-digit numbers using the place value of given digits  
• Use a number line to estimate the position of 4-digit numbers  
• Associate large numbers to real-life situations  
• When writing 4-digit numbers, use zero as a keeper  
• Forward count by tens and hundreds on the decade | South America | Inca temple | M4401 |
| Multiplication and division | At the end of this lesson, the student is able to:  
• Identify if a number is prime or composite by finding the number of factors  
• Recognize the commutative property of multiplication  
• Solve multiplication problems by using written strategies  
• Multiply 3-digit numbers by 1-digit numbers  
• Determine divisibility of a given number by using a calculator  
• Use trial and error method to solve problems  
• Estimate answers to division problems by using mental strategies  
• Identify the reasonableness of an answer by comparing to the estimation  
• Find the operation required to solve a problem | South America | Amazon river boat trip | M4402 |
| Subtraction | At the end of this lesson, the student is able to:  
• Use subtraction to solve problems in real-life situations  
• Use trading to subtract 2-digit numbers  
• Use written algorithm to solve subtraction problems  
• Choose appropriate mental or written strategies to solve subtraction problems  
• Identify the reasonableness of a solution by comparing it to the original estimation  
• Use trial and error method to solve problems | South America | Lama farm | M4403 |
<table>
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<tr>
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</table>
| Addition and subtraction | At the end of this lesson, the student is able to:  
- Extend number facts by using patterns  
- Add and subtract 2 or more 3-digit numbers with and without trading  
- Find patterns for addition and subtraction number facts  
- Check solutions by applying the inverse relationship of addition and subtraction  
- Check solutions using estimation of addition and subtraction problems  
- Write own facts about given numbers  
- Use written algorithm to solve addition and subtraction problems  
- Suggest problems that can be solved using addition or subtraction  
- Use trial and error method to solve problems | South America   | Carnival parade in Rio                                         | M4404          |
| Fractions, decimals, percentages | At the end of this lesson, the student is able to:  
- Understand that the symbol % means percent  
- Order and compare percentages  
- Give an explanation as to why one percentage is smaller or larger than other percentage  
- Compare percentage to a fraction  
- Show equivalence between fractions and decimals using a calculator  
- Convert common decimals and fractions to percentages  
- Understand percentages in everyday situations  
- Show equivalence between fractions, percentages and decimals  
- Make comparisons of fractions, percentages and decimals  
- Present and solve problems in everyday situations which include percentages | South America   | Street orchestra                                               | M4405          |
| Pattern and function | At the end of this lesson, the student is able to:  
- Show relationships by forming arrays  
- Use the "looking for patterns" strategy to solve problems  
- Recognize that the equal sign means "is the same as"  
- Show patterns in tables to display the order of each term in a pattern  
- List multiplication facts to 10x10 as well as show patterns by drawing diagrams | South America   | Soccer stadium                                                | M4406          |
| Area and time | At the end of this lesson, the student is able to:  
- Use square meters to record area  
- Use square centimeters to record area  
- Use a square centimeter grid to measure the area of several surfaces  
- Estimate area in square meters by visualizing repeated units  
- Locate the perimeter of 2-dimensional shapes  
- Build a square meter  
- Use the square centimeter as an area unit  
- Measure area by the square meter  
- Record area by square meters  
- Put a series of events in order on a timeline  
- Relate time facts to each other | Phantasia continent | Castle in the clouds                                         | M4407          |
| Angles | At the end of this lesson, the student is able to:  
- Locate angles with 2 arms in practical situations  
- Use common means to compare angles  
- Locate the arms and vertex of an angle  
- Use common language to describe angles and the terms "acute", "right" and "obtuse" | Phantasia continent | Singing Angels                                                | M4408          |
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<tr>
<th>Grade 4</th>
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<tbody>
<tr>
<td>Position</td>
<td>At the end of this lesson, the student is able to: • Describe position using simple coordinates • Plot points for certain coordinates • Describe location of an object using N, S, E, NW, SE, SW on a simple map • Plot a simple path on a grid using N, S, E, W • Use a simple maze to locate a path</td>
<td>Phantasia continent</td>
<td>World of Fish</td>
<td>M4409</td>
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<tr>
<td>Chance</td>
<td>At the end of this lesson, the student is able to: • Perform a simple experiment with random generators to discuss the likelihood of outcomes • Make predictions of possible outcomes • Use the language of chance • Discuss the likelihood of an event occurring • Differentiate between uncertain and certain events</td>
<td>Phantasia continent</td>
<td>Wizards, Harry Potter</td>
<td>M4410</td>
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</tr>
<tr>
<td>Repetition M4401-M4405</td>
<td>At the end of this lesson, the student is able to: • Read four-digit numbers, • Represent four-digit numbers using numerals, • Use zero as a place keeper when writing four-digit numbers, • Apply large numbers to real-life situations, • Count forwards by tens and hundreds on the decade, • Solve subtraction problems using a written algorithm, • Solve problems in real-life situations using subtraction,</td>
<td>Phantasia continent</td>
<td>Treasure island</td>
<td>M4411</td>
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<tr>
<td>Repetition M4406-M4410</td>
<td>At the end of this lesson, the student is able to: • Describe angles using everyday language and the terms 'right', 'acute', and 'obtuse', • Identify angles with two arms in practical situations, • Compare angles using informal means, • Identify the arms and vertex of an angle, • Use N,S,E,W, NW, SE, SW to describe location of an object on a simple map, • Use simple coordinates to describe position, • Plot points at given coordinates, • Use N,S,E,W to plot a simple path on a grid, • Find a path through a simple maze</td>
<td>Phantasia continent</td>
<td>Dinosaurs</td>
<td>M4412</td>
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<tr>
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| Thousands   | At the end of this lesson, the student is able to:  
• read and write 4-digit numbers  
• locate the 2nd smallest and 2nd largest number given 4 digits  
• use words and numerals to write 4-digit numbers  
• understand place value in 5-digit numbers  
• use words to write 5-digit numbers  
• put 5-digit numbers in ascending and descending order | Australia Sheep farm | M5101 |
| Addition    | At the end of this lesson, the student is able to:  
• use a number line to help with addition  
• choose and apply relevant strategies to solve addition problems  
• use relevant mental strategies to add 2-digit numbers  
• add 2 and 3-digit numbers using a formal written algorithm  
• Have an understanding of various methods of addition, be able to explain  
• estimate to verify answers to addition problems | Australia BBQ party | M5102 |
| Subtraction | At the end of this lesson, the student is able to:  
• check for accuracy by using estimation  
• solve subtraction problems using a number line  
• use relevant mental strategies to subtract  
• choose and apply relevant mental and written strategies to solve subtraction problems  
• use formal, written algorithm and use place value to solve subtraction problems  
• use inverse operations to verify solutions  
• solve problems using the “looking backwards” method | Australia Snorkeling great barrier reef | M5103 |
| Multiplication | At the end of this lesson, the student is able to:  
• use relevant mental strategies for multiplication and explain the strategies used  
• locate errors in simple multiplication tables  
• use multiplication to solve word problems  
• locate the factors and multiples of a given number  
• use extended algorithm to multiply 2 and 3-digit numbers by 1-digit numbers | Australia Music center | M5104 |
| Fractions   | At the end of this lesson, the student is able to:  
• add & subtract simple fractions with like denominators  
• show thirds, sixths and twelfths as a whole  
• use diagrams to locate equivalent fractions  
• calculate unit fractions of a collection  
• suggest simple problems involving fractions, then solve  
• put fractions on a number line between 0 to 1 to show equivalence  
• translate tenths as fractions & decimals  
• use inequality signs to compare fractions & decimals | Australia Truck stop | M5105 |
| Patterns    | At the end of this lesson, the student is able to:  
• apply a rule to describe a pattern  
• use words to describe a geometric pattern  
• complete a table of values for a geometric pattern  
• use a rule to calculate a matching value for a larger number | Australia Surfing, Beach | M5106 |
<table>
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<tr>
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</table>
| ![Length Icon](image1.png) | Length | At the end of this lesson, the student is able to:  
• estimate distance on a number line  
• understand that 1000 meters = 1 km  
• use abbreviation of kilometer (km)  
• understand need for a unit larger than a meter  
• convert between millimeters, centimeters and meters  
• use decimal notation to write lengths  
• measure and calculate perimeters of rectangles & squares  
• measure and write lengths in millimeters & centimeters | Europe | English bus | M5107 |
| ![Time Icon](image2.png) | Time | At the end of this lesson, the student is able to:  
• find duration of events using the assigned start times  
• use the notation "am" and "pm"  
• precisely tell the time using 24-hour time  
• during daylight savings, compare various time zones  
• read, use and interpret 24-hour time in real-life situations | Europe | Living in the mill | M5108 |
| ![Prisms and Pyramids Icon](image3.png) | Prisms and Pyramids | At the end of this lesson, the student is able to:  
• identify & draw the cross-section of a prism or pyramid  
• identify prisms or pyramids according to the shape of their base  
• sketch 3-dimensional objects from various views  
• identify differences and similarities between 2 prisms and 2 pyramids | Europe | Pizza (Italian) restaurant | M5109 |
| ![2D shapes Icon](image4.png) | 2D shapes | At the end of this lesson, the student is able to:  
• choose a shape from its features  
• explain classifications of 2-dimensional shapes  
• locate and draw diagonals on 2-dimensional shapes  
• locate and draw regular and irregular 2-dimensional shapes  
• locate the properties of special quadrilaterals by measuring sides & angles | Europe | Russian toy store | M5110 |
| ![Graphs Icon](image5.png) | Graphs | At the end of this lesson, the student is able to:  
• use given information to draw a picture graph  
• identify a suitable key for a picture graph  
• use the key to interpret a given picture graph  
• list questions that can be answered using a given graph  
• collect and interpret data by using tally marks  
• explain a bar graph using the given scale | Europe | Orange trees, Olive trees | M5111 |
| ![Length, time, shapes Icon](image6.png) | Length, time, shapes | After the end of this lesson, student is able to:  
• Convert between millimetres, centimetres and metres  
• Measure and record lengths in millimetres and centimetres  
• Measure and calculate perimeters of squares and rectangles  
• Record lengths using decimal notation  
• Read, interpret and use 24-hour time in real life situations  
• Determine the duration of events using giving starting times  
• Use am and pm notation  
• Tell the time accurately using 24-hour time  
• Compare various time zones in Australia during daylight saving  
• Recognize and draw the cross-section of a pyramid or prism  
• Recognize similarities and differences between two pyramids and two prisms. | Europe | Eiffel tower | M5112 |
<table>
<thead>
<tr>
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<th>continent</th>
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</tr>
</thead>
</table>
| Whole number | | At the end of this lesson, the student is able to:  
• identify, read and convert Roman numerals  
• identify the place value of any digit in a number  
• sort numbers in ascending and descending order  
• write large numbers in expanded notation  
• round numbers to nearest hundred and nearest thousand  
• identify various abbreviations of numbers used in everyday contexts | Antarctica | Ice-cream shop | M5201 |
| Addition | | At the end of this lesson, student is able to:  
• Select and apply appropriate mental, written or calculator strategies to solve addition problems  
• Give reasons why a calculator was helpful in solving addition problems  
• Use formal written algorithms for addition  
• Check reasonableness of answers by estimation  
• Use trial and error to find solutions  
• Explain whether an approximate or exact answer is best suited. | Antarctica | Igloo | M5202 |
| Division | | At the end of this lesson, the student is able to:  
• use divisibility tests to divide mentally  
• use division strategies to solve word problems  
• solve division problems using a written algorithm  
• solve division problems by applying appropriate written or mental strategies  
• divide 2 and 3-digit numbers by 1-digit with and without remainders  
• choose appropriate mental strategies to solve division problems  
• connect division and multiplication as inverse operations | Antarctica | Penguins | M5203 |
| Decimals and percentages | | At the end of this lesson, the student is able to:  
• show simple fractions and decimals as perentages  
• put decimals in ascending order  
• show hundredths as fractions and decimals  
• put percentages in descending order  
• understand the use of percentages in common situations  
• add and subtract decimal numbers  
• use the four operations in money problems | Antarctica | Husky sled | M5204 |
| Chance | | At the end of this lesson, the student is able to:  
• place in order frequently used chance words on a line between zero and one  
• explain the likelihood of events occurring  
• use data to place in order chance events from most likely to least likely  
• perform an experiment to verify predictions  
• use understanding of equivalent fractions to assign a numerical value to the chance of an event occurring | Antarctica | Fisher boat | M5205 |
| Number patterns | | At the end of this lesson, the student is able to:  
• explain how a number pattern is created, then continue it using the rule  
• produce various number patterns  
• make a number sentence to solve a word problem that needs to find the "unknown"  
• find solutions to number sentences by substituting the solution into original question  
• make a table of values for a given pattern to solve word problems | Antarctica | Fashion store | M5206 |
| Volume and capacity | | At the end of this lesson, the student is able to:  
• pack rectangular containers with cubic centimeter blocks and estimate the capacity, then measure  
• use cubic meter for measuring larger volumes  
• make rectangular prisms using cubic centimeter blocks and count to find the volume  
• understand and use the cubic meter (m3) abbreviation  
• compare 1 liter to 1000 ml  
• estimate the capacity of several containers, then measure | Africa | Wild park | M5207 |
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<tr>
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</thead>
</table>
| Mass        | At the end of this lesson, the student is able to:  
• use various units of mass to solve problems  
• compare 1 kg to 1000 g  
• put in order mass from lightest to heaviest, and vice versa  
• convert between kilograms and grams  
• record mass to the nearest 100 g  
• find the appropriate unit to measure mass  
• estimate the mass of familiar objects, then use the appropriate device to check  
• compare the mass of 1 liter of water to 1 kg | Africa | Market place | M5208 |
| 3D objects  | At the end of this lesson, the student is able to:  
• name and draw 3-dimensional objects given their nets  
• draw a net for an assigned 3-dimensional object  
• locate 3-dimensional objects based on their properties  
• imagine and draw 3-dimensional objects from various views  
• build 3-dimensional objects given drawings of objects  
• use a simple perspective in drawings to show depth | Africa | Bus station | M5209 |
| 2D shapes   | At the end of this lesson, the student is able to:  
• name and draw the parts of a circle including: center, diameter, radius, sector, semicircle, circumference and quadrant  
• make a circle using a pair of compasses  
• describe the side properties of equilateral, isosceles and scalene triangles, then compare  
• locate and name: isosceles, equilateral, scalene and right-angled triangles  
• enlarge and reduce 2-dimensional pictures | Africa | Music, Dance performance | M5210 |
| Bar graph and data | At the end of this lesson, the student is able to:  
• interpret a given bar graph  
• present questions that can be answered using the information from a graph  
• name the vertical and horizontal axes, then label  
• collect data and use it to draw a bar graph  
• perform an investigation to evaluate a set of data  
• use scales of “many-to-one” correspondence to draw bar graphs | Africa | Traditional African village | M5211 |
| Radius, diameter, circumference, use of compass | At the end of this lesson, the student is able to:  
• identify and name parts of a circle including the centre, radius, diameter, circumference, sector, semicircle and quadrant,  
• construct circle using a pair of compasses  
• compare and describe side properties of equilateral, isosceles and scalene triangles,  
• identify and name isosceles, equilateral, scalene and right-angled triangles,  
• make enlargements and reductions of two-dimensional pictures. | Africa | Group of Pyramids | M5212 |
| Whole number | At the end of this lesson, the student is able to:  
• put numbers in ascending order  
• write numbers of any size in words  
• identify the place value of any digit in large numbers  
• identify various abbreviations of numbers used in everyday context  
• identify numbers smaller than and larger than a given number  
• use expanded notation to write large numbers  
• round numbers to nearest ten thousand  
• read and convert Roman numerals | North America | Movie theater | M5301 |
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</table>
| Addition and subtraction | At the end of this lesson, the student is able to:  
• solve addition problems using a formal written algorithm  
• apply place value concepts to solve addition & subtraction problems using a formal written algorithm  
• use inverse operations to check solutions  
• use variety of numbers of digits to add numbers  
• use various strategies to solve unfamiliar problems  
• choose and apply appropriate mental or written strategies to solve addition problems | North America | Hamburger restaurant | M5302 |
| Multiplication | At the end of this lesson, the student is able to:  
• multiply 2-digit numbers by a 1-digit number using both extended and contracted algorithm  
• solve word problems using the "work backwards" strategy  
• multiply a number by a multiple of 10 using mental strategies  
• identify whether a number is prime or composite depending on its number of factors  
• identify and make square and cube numbers | North America | Native American village | M5303 |
| Division | At the end of this lesson, the student is able to:  
• answer division problems by using zero appropriately  
• check answers using estimation  
• solve division problems using useful mental strategies  
• understand and use various notations to show divisions  
• use fraction form to write remainders in division problems  
• solve real-life division problems using relevant written/mental strategies | North America | Halloween | M5304 |
| Fractions | At the end of this lesson, the student is able to:  
• make equivalent fractions by multiplying and dividing  
• show why 2 fractions are equivalent  
• reduce a fraction to its lowest equivalent  
• use diagrams to locate equivalent fractions  
• create a mental strategy for locating equivalent fractions  
• use diagrams and number lines to compare and order fractions greater than one | North America | Baseball | M5305 |
| Decimals | At the end of this lesson, the student is able to:  
• add and subtract decimal numbers to 2 decimal places  
• use a single-digit whole number to multiply decimal numbers to 2 places  
• use a single-digit whole number to divide decimal numbers by 2 places  
• understand the use of decimals in everyday situations | North America | School bus | M5306 |
| Patterns | At the end of this lesson, the student is able to:  
• describe a pattern by determining a rule  
• use words to describe a pattern  
• make a geometric pattern and write its rule  
• use a geometric pattern and complete a table of values  
• make generalizations about numbers and number relationships  
• use the presented data to identify patterns  
• locate a rule that describes and completes a number pattern  
• generate various number patterns that increase or decrease | Asia | Food market | M5307 |
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</table>
| Area and Perimeter | At the end of this lesson, the student is able to:  
• calculate distances by interpreting scales on a map  
• understand the relationship between length and breadth to find area of rectangles  
• appropriately use the terms "length" and "breadth"  
• choose the correct measurement to calculate area  
• understand the need for a unit larger than the square meter  
• calculate the perimeter of rectangles and squares  
• recognize that one hectare is equal to 10000m²  
• find situations where square kilometers are used  
• use the square kilometer abbreviation (km²) | Asia | Rice field | M5308 |
| Angles | At the end of this lesson, the student is able to:  
• measure angles using a protractor  
• find the arms and vertex of an angle  
• sort angles as: acute, obtuse, right, straight, reflex or revolution  
• use the environment to locate and describe angles  
• use degrees to estimate and measure angles  
• make an angle of a given size using a protractor  
• compare angles in different 2-dimensional shapes | Asia | Riksjas, toek | M5309 |
| Position | At the end of this lesson, the student is able to:  
• use given coordinates to find a place on a map or directory  
• use directions from a landmark to find a place on a map  
• use an ariel view to draw maps and plans  
• calculate the distance between 2 points on a map using a scale  
• explain the location of one place relative to another | Asia | Tea store | M5310 |
| Line graphs and mean | At the end of this lesson, the student is able to:  
• explain a given line graph based on the scales on the axes  
• label and name the horizontal and vertical axes  
• draw a line graph to show any data that reveals a continuous change  
• use the scale to locate the placement of each point when drawing a line graph  
• understand and use the term "mean" for average  
• locate the mean for a small set of data | Asia | Elephants plant | M5311 |
| Angles, Perimeter, square kilometer | At the end of this lesson, the student is able to:  
• calculate the perimeter of squares and rectangles  
• use the term length and breadth appropriately,  
• identify situations where square kilometres are used,  
• use the abbreviation of square kilometer (km²),  
• describe angles found in their environment,  
• identify the arms and vertex of an angle,  
• classify angles acute, right, obtuse, straight, reflex or revolution,  
• estimate and measure angles in degrees,  
• use a protractor to construct an angle of a given size,  
• compare angles in different two-dimensional shapes. | Asia | Dojo | M5312 |
| Whole number | At the end of this lesson, the student is able to:  
• read numbers of any size  
• use words to write large numbers  
• round numbers while estimating  
• put numbers in descending order  
• round numbers to a given place value  
• use extended notation to write numbers  
• put negative numbers on a number line  
• understand the location of negative numbers as compared to zero  
• denote position using ordinal numbers  
• use ordinal numbers and explain position after tied places | South America | Inca temple | M5401 |
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<tr>
<td>Division</td>
<td>At the end of this lesson, the student is able to: • check answers to division problems using multiplication • use division to find the factors of numbers • divide a 3-digit number by a 1-digit number with and without remainders • divide a 4-digit number by a 1-digit number with and without remainders • check answers to division problems using estimation • use written and mental strategies to divide by 10 • divide money by 1-digit divisors, recalling the decimal point means &quot;cents&quot;</td>
<td>South America</td>
<td>Amazone river boat trip</td>
<td>M5402</td>
<td></td>
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<tr>
<td>Addition and subtraction</td>
<td>At the end of this lesson, the student is able to: • solve subtraction problems using a formal algorithm and applying place value concepts • solve addition problems using a formal written algorithm and applying place value concepts • check solutions using estimation • find answers to questions involving mixed operations • use a set of scores in everyday situations and calculate the average • show operations in various ways using some mathematical conventions</td>
<td>South America</td>
<td>Lama farm</td>
<td>M5403</td>
<td></td>
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<tr>
<td>Multiplication, division and chance</td>
<td>At the end of this lesson, the student is able to: • show remainders in a division problem understanding the answer needs to be rounded up or down • predict the likelihood of events happening; describe • solve multiplication and division problems by using appropriate written or mental strategies • list frequently used &quot;chance&quot; words • check predictions by performing experiments by predicting strand</td>
<td>South America</td>
<td>Carnival parade in Rio</td>
<td>M5404</td>
<td></td>
</tr>
<tr>
<td>Fractions and percentages</td>
<td>At the end of this lesson, the student is able to: • subtract fractions from whole numbers using diagrams • show improper fractions as mixed numerals • divide and multiply numbers by 10 and 100 • show simple fractions as decimals and percentages • calculate simple percentages of quantities</td>
<td>South America</td>
<td>Street orchestra</td>
<td>M5405</td>
<td></td>
</tr>
<tr>
<td>Pattern and function</td>
<td>At the end of this lesson, the student is able to: • calculate a value by using a rule • locate a rule to describe a pattern from a table • create a table of values used for geometric patterns • explain the choice of a particular rule for values in a pattern • locate missing numbers by completing number sentences that use multiple operations • complete number sentences that involve multiple operations by calculating missing values • create number sentences to match a problem presented in words and that requires finding an unknown</td>
<td>South America</td>
<td>Soccer stadium</td>
<td>M5406</td>
<td></td>
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<tr>
<td>Area and length</td>
<td>At the end of this lesson, the student is able to: • locate the relationship between the length of sides &amp; perimeter in squares and rectangles, then explain • calculate perimeters of squares and rectangles • use everyday situations to solve problems by using measurement skills • choose the appropriate unit to calculate area and use it • apply area rules to irregular shapes</td>
<td>Phantasia continent</td>
<td>Castle in the clouds</td>
<td>M5407</td>
<td></td>
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<td>Lesson Icon</td>
<td>Tags / Subject</td>
<td>Learning goals</td>
<td>continent</td>
<td>theme</td>
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| Measurement | At the end of this lesson, the student is able to:  
• show that 1000 cm³ will displace 1 L of water  
• use real-life situations, including those that involve 24-hour time, to read, interpret and use timetables  
• show that a centimeter cube will displace one mL of water | Phantasia continent | Singing Angels | M5408 |
| Space       | At the end of this lesson, the student is able to:  
• describe and compare diagonals of various 2D shapes  
• locate and draw diagonals on 2D shapes  
• locate shapes using the descriptions of their properties  
• identify and name 2D shapes using a protractor, be able to measure and create angles of any size  
• given certain coordinates, find its place on a grid  
• given certain coordinates, find the place on a map | Phantasia continent | World of Fish | M5409 |
| Graphs      | At the end of this lesson, the student is able to:  
• read and interpret line graphs  
• using the scale of "many-to-one" correspondence, draw a bar graph  
• use the key to interpret a given picture graph  
• understand which types of graphs are the best to display given the information  
• as part of an investigation, collect, represent and evaluate a set of data | Phantasia continent | Wizards, Harry Potter | M5410 |
| Repetition M5401-M5405 | At the end of this lesson, the student is able to:  
• Read numbers of any size, write large numbers in words  
• Order numbers in descending order  
• Recognize the location of negative numbers in relation to zero  
• Place negative numbers on a number line  
• Calculate the average of a set of scores in everyday situations  
• Find solutions to questions involving mixed operations  
• Calculate simple percentages of quantities  
• Represent simple fractions as decimals and percentages  
• Use diagrams to subtract fractions from whole numbers  
• Express improper fractions as mixed numerals  
• Multiply and divide decimal numbers by 10 and 100 | Phantasia continent | Treasure island | M5411 |
| Repetition M5407-M5410 | At the end of this lesson, student is able to:  
• Calculate perimeters of squares and rectangles  
• Find and explain the relationship between the length of the sides and perimeter in squares and rectangles  
• Apply area rules to irregular shapes  
• Identify and draw diagonals on 2D shapes  
• Compare and describe diagonals of different 2D shapes  
• Identify shapes from descriptions of their properties  
• Read and interpret line graphs. | Phantasia continent | Dinosaurs | M5412 |
<table>
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<tr>
<th>Grade 6</th>
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<tbody>
<tr>
<td><strong>Lesson Icon</strong></td>
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</tbody>
</table>
| Numbers over one million and Roman numerals | At the end of this lesson, the student is able to:  
• write large numbers in expanded notation  
• arrange a set of large numbers in both ascending and descending order  
• read and write large numbers in numerals and words  
• arrange a set of large numbers on a number line  
• use everyday situations to convert Roman numerals into Hindu Arabic numerals | Australia | Sheep farm | M6101 |
| Addition and subtraction | At the end of this lesson, the student is able to:  
• check solutions by using addition  
• check subtraction by using addition  
• use a different number of digits to add and subtract numbers  
• utilize various mental strategies to add and subtract | Australia | BBQ party | M6102 |
| Multiplication and subtraction | At the end of this lesson, the student is able to:  
• write a remainder as a fraction  
• solve division problems using multiplication facts  
• locate solutions to questions regarding mixed operations  
• use appropriate mental strategies for multiplication and division | Australia | Snorkeling great barrier reef | M6103 |
| Mixed problem solving | At the end of this lesson, the student is able to:  
• check solutions using estimation  
• use a written strategy to multiply 3- or 4-digit number by a 1-digit number  
• using a contracted form, divide a number with 3 or more digits by a single division  
• record remainders as a fraction  
• connect mathematical ideas and form relationships with existing knowledge and understanding relative to stage 3 content  
• calculate averages in everyday situations  
• locate solutions to questions regarding mixed operations  
• choose appropriate mental or written operations to solve problems | Australia | Music center | M6104 |
| Decimals | At the end of this lesson, the student is able to:  
• list the commonly used decimal fractions  
• interpret decimal notation for 1/10s, 1/100s, 1/1000s  
• place in order decimal numbers with 3 decimal places, then compare  
• add or subtract decimal numbers that have a variety of decimal places  
• show thousandths as decimals  
• multiply decimal numbers by whole numbers up to 10  
• multiply decimal numbers by 100 | Australia | Truck stop | M6105 |
| Fractions | At the end of this lesson, the student is able to:  
• locate equivalent fractions  
• rename fractions when numerator and denominator are the same as 1  
• identify a fraction with a denominator of 3, 5 or 8  
• identify and compare everyday percentages as fractions and decimals  
• use illustrations to put fractions in order  
• add and subtract fractions which have the same denominator  
• use diagrams to add and subtract fractions less than one, with denominators that are multiples of the same number  
• use a diagram to show subtraction of a fraction from 1 | Australia | Surfing, Beach | M6106 |
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</table>
| ![Pattern and function](image1.png) | Pattern and function | At the end of this lesson, the student is able to:  
• using a table of values, calculate the value of a missing number  
• complete a table of values for a geometric pattern  
• place the values from a table on a grid on a graph  
• after a graph is drawn from a table of values, describe the geometrical pattern that was formed  
• show how the answers in a table of values were determined | Europe | English bus | M6107 |
| ![Length, area, volume, time](image2.png) | Length, area, volume, time | At the end of this lesson, the student is able to:  
• use kilometers to estimate lengths and distances  
• estimate, measure and compare the perimeters of rectangles  
• understand the difference between area and perimeter  
• build various 3D objects using cubic centimeters  
• count the cubic centimeters in order to measure the volume of a 3D object  
• identify and read time using 24-hr time  
• build and compare various models using the same number of cubic centimeters  
• convert 24-hr time to analog time and am and pm notation  
• find the duration of events using start and finish time in order to determine time elapsed  
• convert between units when comparing distances | Europe | Living in the mill | M6108 |
| ![Angles I](image3.png) | Angles I | At the end of this lesson, the student is able to:  
• use the degree symbol for degrees  
• estimate and measure in degrees  
• locate acute, right, obtuse, reflex, revolutions and straight angles  
• produce an angle of a given size using a protractor | Europe | Pizza (Italian) restaurant | M6109 |
| ![Angles II](image4.png) | Angles II | At the end of this lesson, the student is able to:  
• locate acute, reflex, obtuse, right, revolutions and straight angles  
• use the degree symbol  
• describe the side and angle properties of isoceles, equilateral and scalene triangles; then compare  
• estimate and measure in degrees  
• produce an angle of a given size using a protractor  
• locate the angle types at intersecting lines | Europe | Russian toy store | M6110 |
| ![Line graphs](image5.png) | Line graphs | At the end of this lesson, the student is able to:  
• draw a line graph to show data that demonstrates a continuous change  
• identify an appropriate scale when drawing a line graph  
• present a line graph and label the vertical and horizontal axes  
• display a scale on the vertical axis for a line graph  
• interpret a given line graph using the scale on the axis to make generalizations about the graphed information | Europe | Orange trees, Olive trees | M6111 |
| ![Roman numerals, angles,](image6.png) | Roman numerals, angles, | At the end of this lesson, the student is able to:  
• show large numbers in expanded notation  
• convert Roman numerals into Hindu Arabic numerals in everyday situations  
• locate acute, right, obtuse, straight, reflex and revolution angles  
• use the degree symbol for degrees  
• estimate and measure in degrees  
• make an angle of a given size using a protractor | Europe | Eiffel tower | M6112 |
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<tr>
<th>Lesson Icon</th>
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</tr>
</thead>
</table>
| ![Numbers to 100 000 000](image1.png) | Numbers to 100 000 000 | At the end of this lesson, the student is able to:  
• read and write large numbers in numerals  
• read and write large numbers in words  
• express the relationship between large numbers using < and >  
• round numbers to millions  
• put a set of large numbers in ascending and descending order  
• locate prime numbers  
• locate composite numbers | Antarctica | Ice-cream shop | M6201 |
| ![Multiplication and division](image2.png) | Multiplication and division | At the end of this lesson, the student is able to:  
• use a written strategy to multiply 3- or 4-digit numbers by a 1-digit number  
• use the extended form to multiply a 3-digit number by a 2-digit number  
• use the contracted form to divide a number with 3 or more digits by a single divisor  
• show a remainder as a fraction  
• calculate averages in everyday situations  
• find the most cost effective item | Antarctica | Igloo | M6202 |
| ![Factors and Multiples](image3.png) | Factors and Multiples | At the end of this lesson, the student is able to:  
• write square numbers  
• list multiples and factors of a given number  
• locate composite numbers from a group of numbers  
• calculate solutions to questions involving mixed operations | Antarctica | Penguins | M6203 |
| ![Operations with fractions](image4.png) | Operations with fractions | At the end of this lesson, the student is able to:  
• add fractions that have the same denominator  
• add fractions with different denominators using understanding of equivalent fractions  
• add decimals having various number of places  
• locate equivalent fractions using number patterns  
• calculate averages in everyday situations | Antarctica | Husky sled | M6204 |
| ![Multiplying fractions](image5.png) | Multiplying fractions | At the end of this lesson, the student is able to:  
• present everyday percentages as fractions and decimals  
• multiply simple fractions by whole numbers  
• calculate the new cost of an item which has been decreased or increased in price | Antarctica | Fisher boat | M6205 |
| ![Fractions and decimals](image6.png) | Fractions and decimals | At the end of this lesson, the student is able to:  
• calculate percentages of an amount using fractions; recall mental strategies  
• calculate the new cost of an item which has been reduced or increased  
• present everyday percentages as fractions and decimals | Antarctica | Fashion store | M6206 |
| ![Pattern and function](image7.png) | Pattern and function | At the end of this lesson, the student is able to:  
• utilize a rule to describe a pattern  
• use a description to write the terms in a pattern  
• write a description of a number pattern  
• explain how the answers were found  
• use the appropriate rule to calculate value of a larger number  
• match a table of values to its graph  
• match a table of values of a larger number  
• find the value of a missing number  
• put together a number sentence to match a problem presented in words  
• solve a number sentence using an inverse operation  
• check the solution by substitution | Africa | Wild park | M6207 |
<table>
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<tr>
<th>Lesson Icon</th>
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<th>continent</th>
<th>theme</th>
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</thead>
<tbody>
<tr>
<td>Area</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>Africa</td>
<td>Market place</td>
<td>M6208</td>
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<td></td>
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<td>• understand the relationship between square meters and hectares</td>
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<td>• calculate the area of a rectangle and show the correct notation</td>
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<td></td>
<td>• list examples where area is measured in hectares</td>
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<td>• understand and use scale</td>
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<td></td>
<td></td>
<td>• list examples where square kilometers are used to measure area</td>
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<tr>
<td>Measurement</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>Africa</td>
<td>Bus station</td>
<td>M6209</td>
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<tr>
<td></td>
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<td>• understand the relationship between one milliliter and one cubic centimeter</td>
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<td>• understand the relationship between one liter of water and one kilogram</td>
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<td></td>
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<td>• use the scale to interpret a given timeline</td>
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<td></td>
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<td>• determine the volume of an irregular solid by submerging in water and measuring the displaced water</td>
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<td>• use an appropriate scale to draw a timeline for the information provided</td>
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<tr>
<td>Position</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>Africa</td>
<td>Music,Dance performance</td>
<td>M6210</td>
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<td></td>
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<td>• show or plan a route using a given map</td>
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<td>• calculate the distance between 2 places on a map using a scale</td>
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<td>• locate a place on a map given its coordinates</td>
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<td>• locate a place on a map as directed from a town or landmark</td>
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<td>• provide directions using a map</td>
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<td>• calculate the size of drawn objects using a scale</td>
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<td></td>
<td>• reduce and enlarge 2-dimensional shapes and pictures</td>
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<tr>
<td>Data</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>Africa</td>
<td>Traditional African village</td>
<td>M6211</td>
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<td>• answer questions regarding data shown in a sector graph</td>
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<td>• compare the size of categories shown on a sector graph using fraction and percentage statements</td>
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<td>• identify a category represented by each sector in a sector graph</td>
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<tr>
<td>Percentages, fractions, decimals, graphs,</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>Africa</td>
<td>Group of Pyramids</td>
<td>M6212</td>
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<td></td>
<td></td>
<td>• show everyday percentages as fractions and decimals</td>
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<td>• interpret data shown in a sector graph to answer questions</td>
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<td>• compare the size of categories shown on a sector graph by using fractions and percentage statements</td>
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<td>• name a category shown by each sector in a sector graph</td>
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<tr>
<td>Number sense</td>
<td></td>
<td>At the end of this lesson, the student is able to:</td>
<td>North America</td>
<td>Movie theater</td>
<td>M6301</td>
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<tr>
<td></td>
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<td>• round numbers to the nearest ten thousand when estimating</td>
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<td>• determine the place value of any digit</td>
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<td>• convert Roman numerals and numbers from other systems to Hindu Arabic numerals in ordinary situations</td>
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<td></td>
<td></td>
<td>• use ordinal numbers</td>
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<td>• match various abbreviations of numbers used in ordinary contexts</td>
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<td>• determine appropriate mental strategies for addition and subtraction as well as use them</td>
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<tr>
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<td></td>
<td>• determine appropriate mental strategies for multiplication and division as well as use them</td>
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<td>• check the solutions for addition and subtraction by using estimation</td>
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<tr>
<td></td>
<td></td>
<td>• check the solutions for multiplication and division using estimation</td>
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<tr>
<td><img src="image" alt="Operations with money" /></td>
<td>Operations with money</td>
<td>At the end of this lesson, the student is able to: • choose appropriate mental, written or calculator strategies to solve division and multiplication problems • identify and use factors and multiples of numbers • place in order on a number line from zero (impossible) to one (certain) commonly used chance words • place in order the likelihood of events happening from zero to one on a number line</td>
<td>North America</td>
<td>Hamburger restaurant</td>
<td>M6302</td>
</tr>
<tr>
<td><img src="image" alt="Mixed operations" /></td>
<td>Mixed operations</td>
<td>At the end of this lesson, the student is able to: • check solutions to addition and subtraction problems using estimation • choose the appropriate operation to solve problems, as well as use it • divide a number with 3 or more digits by multiples of ten</td>
<td>North America</td>
<td>Native American village</td>
<td>M6303</td>
</tr>
<tr>
<td><img src="image" alt="Everyday decimals" /></td>
<td>Everyday decimals</td>
<td>At the end of this lesson, the student is able to: • show measurements in decimal notation • subtract decimal numbers that have various number of decimal places • show thousandths as decimals • divide or multiply decimal numbers by 10, 100 or 1,000</td>
<td>North America</td>
<td>Halloween</td>
<td>M6304</td>
</tr>
<tr>
<td><img src="image" alt="Percentages" /></td>
<td>Percentages</td>
<td>At the end of this lesson, the student is able to: • write everyday percentages as fractions and decimals • given various amounts, calculate percentages</td>
<td>North America</td>
<td>Baseball</td>
<td>M6305</td>
</tr>
<tr>
<td><img src="image" alt="Pattern and function" /></td>
<td>Pattern and function</td>
<td>At the end of this lesson, the student is able to: • describe the geometrical pattern formed after a graph is displayed from a table of values • write a description of a number pattern using words • take the values from a table and graph on a grid • determine the value of a missing number in a table of values • apply a rule to a table of values calculating the corresponding value of a larger number • solve a number sentence using inverse operations • make a number sentence to match a problem shown in words and which requires finding an unknown • substitute into a sentence in order to check the solution to a number sentence • take a number pattern that involves using two operations and continue its table of values</td>
<td>North America</td>
<td>School bus</td>
<td>M6306</td>
</tr>
<tr>
<td><img src="image" alt="Area and time zones" /></td>
<td>Area and time zones</td>
<td>At the end of this lesson, the student is able to: • describe how to find the area of a triangle • find the area of a triangle; write using the correct notation • compare time in another time zone with the local time</td>
<td>Asia</td>
<td>Food market</td>
<td>M6307</td>
</tr>
<tr>
<td><img src="image" alt="Mass" /></td>
<td>Mass</td>
<td>At the end of this lesson, the student is able to: • record mass using decimal notation • list examples where mass is measured in tons • use the abbreviation for ton (t) • convert between units when solving problems involving mass, kilograms or tons</td>
<td>Asia</td>
<td>Rice field</td>
<td>M6308</td>
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<tr>
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<td>Polygons</td>
<td>At the end of this lesson, the student is able to: • determine the number of diagonals of various 2-dimensional shapes; compare • locate and draw diagonals on 2-dimensional shapes • draw a 2-dimensional shape given a description of its properties • name, describe and compare the side and angle properties of isosceles, equilateral, right angles and scale triangles</td>
<td>Asia</td>
<td>Riksjas, toek</td>
<td>M6309</td>
<td></td>
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<tr>
<td>3D and symmetry</td>
<td>At the end of this lesson, the student is able to: • visualize and draw 3-dimensional objects • visualize and draw a net for a 3-dimensional object • find and name shapes that have a rotational symmetry • use the formal names for prisms and pyramids • make a design that has rotational symmetry using computer-drawing tools</td>
<td>Asia</td>
<td>Tea store</td>
<td>M6310</td>
<td></td>
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<tr>
<td>Data</td>
<td>At the end of this lesson, the student is able to: • interpret data shown in a sector (pie) graph to answer questions • interpret a given bar graph using the scale; make observations about the graph • compare the size of categories shown on a sector (pie) graph; use fraction statements • interpret data shown in a divided bar graph to answer questions • identify an appropriate scale when using a bar graph • determine the mean for a small set of data • determine the median for a small set of data • compare the mean and median; interpret • choose between a line graph and a bar graph to display information appropriately</td>
<td>Asia</td>
<td>Elephants plant</td>
<td>M6311</td>
<td></td>
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<tr>
<td>Shapes, time</td>
<td>At the end of this lesson, the student is able to: • locate and name various polygons • describe how to find the area of a triangle • using the correct notation, calculate the area of a triangle • explain and compare the side and angle properties of isosceles, equilateral, right angles and scale triangles • compare the time in another time zone with the local time</td>
<td>Asia</td>
<td>Dojo</td>
<td>M6312</td>
<td></td>
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<tr>
<td>Number sense</td>
<td>At the end of this lesson, the student is able to: • read and write large numbers in numerals • describe the place value of any digit in a number • put a set of larger numbers in ascending and descending order • put a set of negative numbers on a number line • use relational signs • identify and use prime and composite numbers</td>
<td>South America</td>
<td>Inca temple</td>
<td>M6401</td>
<td></td>
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<tr>
<td>Mixed operations</td>
<td>At the end of this lesson, the student is able to: • multiply a 3-digit and 4-digit number by a 2-digit number using the extended form • find and use the appropriate operation to solve problems • solve multiplication problems by choosing appropriate mental, written and calculator strategies</td>
<td>South America</td>
<td>Amazon river boat trip</td>
<td>M6402</td>
<td></td>
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<tr>
<td>Mixed operations</td>
<td>At the end of this lesson, the student is able to: • write a remainder as a decimal where appropriate • solve division problems by choosing appropriate mental, written or calculator strategies • find and use the appropriate operation to solve problems • check answers to subtraction problems using addition</td>
<td>South America</td>
<td>Lama farm</td>
<td>M6403</td>
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<td>Lesson Icon</td>
<td>Tags / Subject</td>
<td>Learning goals</td>
<td>continent</td>
<td>theme</td>
<td>Lesson code</td>
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|             | Fractions     | At the end of this lesson, the student is able to:  
• show improper fractions as mixed numbers  
• add or subtract fractions with denominators which are multiples of the same number  
• add or subtract fractions with co-prime denominators  
• using repeated addition, multiply simple fractions by whole numbers  
• identify equivalent fractions in order to compare and arrange simple fractions | South America | Carnival parade in Rio | M6404 |
|             | Decimals      | At the end of this lesson, the student is able to:  
• multiply or divide decimal numbers by whole numbers up to ten  
• add or subtract decimal numbers that have various number of decimal places  
• using everyday contexts, multiply or divide decimal numbers by whole numbers | South America | Street orchestra | M6405 |
|             | Pattern and function | At the end of this lesson, the student is able to:  
• explain a rule for a number pattern  
• apply a rule to a table of values to calculate the corresponding value of a larger number  
• use a table of values to calculate the value of a missing number  
• write a description of a number pattern using words  
• continue a table of values for a pattern which involves using 2 operations  
• solve a number sentence using inverse operations  
• make a number sentence to match a problem that is shown in words and that requires finding an unknown  
• substitute into a sentence in order to check the solution of a number sentence | South America | Soccer stadium | M6406 |
|             | Area and perimeter | At the end of this lesson, the student is able to:  
• calculate perimeter using a scale  
• measure perimeter and write in meters  
• choose the appropriate unit when measuring area  
• describe how to find the area of a rectangle  
• calculate the area of a rectangle and write the correct notation  
• refer to a scale and calculate the given area on a plan  
• describe the scale shown on a plan | Phantasia continent | Castle in the clouds | M6407 |
|             | Measuremen... | At the end of this lesson, the student is able to:  
• understand the relationship between one milliliter and one cubic centimeter  
• use cubic centimeters to measure volume  
• find examples where capacity is measured in cubic meters  
• describe the relationship between one liter of water and one kilogram  
• convert am or pm in time to 24-hour notation and vice versa  
• use time to solve problems  
• plan events using a timetable  
• use start and finish times to calculate the duration of an event  
• calculate averages in ordinary situations | Phantasia continent | Singing Angels | M6408 |
|             | Geometry      | At the end of this lesson, the student is able to:  
• use a pair of compasses to make a design  
• take 2-dimensional shapes and pictures and enlarge and reduce them  
• identify and name the radius, center, diameter and circumference of a circle | Phantasia continent | World of Fish | M6409 |
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</thead>
</table>
| ![2D and 3D](image) | 2D and 3D | At the end of this lesson, the student is able to:  
• produce models of 3-dimensional objects from drawings of various views  
• produce a model of a 3-dimensional shape given an isometric drawing  
• match a 3-dimensional object to its cross sections  
• visualize and draw 3-dimensional objects from various views  
• using a copy, make a tessellating design on a computer  
• paste and rotate functions | Phantasia continent | Wizards, Harry Potter | M6410 |
| ![Interpreting data](image) | Interpreting data | At the end of this lesson, the student is able to:  
• Interpret a given bar graph using the scale to make generalizations;  
• Interpret data presented in a sector (pie) graph to answer questions;  
• Interpret data presented in a divided bar graph to answer questions;  
• Interpret a given line graph using scale on the axis to make generalizations about the data;  
• Interpret a given picture graph;  
• Draw a bar graph using a suitable scale and interpret the data; draw a line graph to represent data which demonstrates a continuous change;  
• Draw a picture graph where one symbol represents more than one item;  
• Draw a sector graph;  
• Draw a divided bar graph. | Phantasia continent | Treasure island | M6411 |
| ![Data and chance](image) | Data and chance | At the end of this lesson, the student is able to:  
• prepare a questionnaire to allow data collection  
• answer questions by collecting data  
• show data in graph form  
• assign a numerical value to the likelihood of an event occurring  
• place in order the likelihood of events happening on a number line from 0 to 1 | Phantasia continent | Dinosaurs | M6412 |