

Year 4: Assessment Task Card

4.1

Unit
1

Odd and Even Numbers

Resources: A4 paper

- 1 Give each student a sheet of paper. Have them write an addition equation that has an even answer.
- 2 Have students write a subtraction equation that has an odd answer.
- 3 Have students state if the answer to $10 \times 5 =$ is odd or even.
- 4 Using their knowledge of odd and even numbers, have students state whether the answer to $451 \times 43 =$ is odd or even.
- 5 For students who require extension, have them write a division equation that has an even answer.

Number and place value

Investigate and use the properties of odd and even numbers (ACMNA071) 

Year 4: Assessment Task Card

4.1

Unit
1

Odd and Even Numbers

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the addition of odd and even numbers with the 'Dividing Counters' activity from Lesson Plan 1, Teaching Group.
- Q2** Review the subtraction of odd and even numbers with the 'Addition and Subtraction with Counters' activity from Lesson Plan 2, Teaching Group.
- Q3–4** Use NTO 4.3 'Calculator' and NTO 4.4 'Number Line: Patterns' and look at patterns with the multiplication equations and answers.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Extending the difficulty of the division equations and consolidating the understanding. More time could be spent on LO: L589 'Musical Number Patterns: Music Maker'.

Number and place value

Investigate and use the properties of odd and even numbers (ACMNA071) 

Year 4: Assessment Task Card

4.2

Unit
2

Numbers to Tens of Thousands

Resources: for each student – A4 paper and A3 paper, scissors, glue

- 1 Give each student a piece of A4 paper. Have them divide and cut it into quarters (four pieces).
- 2 On one quarter, have students write a 5-digit number between 30 000 and 40 000.
- 3 On another quarter, have students write 45 263 in words.
- 4 On another quarter, have students write a 5-digit number that begins with 6.
- 5 On the last quarter, have students write a number less than 20 000.
- 6 For students who require extension, have them order the quarters from smallest to largest, then paste them in order on an A3 sheet,

Number and place value

Recognise, represent and order numbers to at least tens of thousands (ACMNA072) 

Year 4: Assessment Task Card

4.2

Unit
2

Numbers to Tens of Thousands

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2–4** Review what a 5-digit number is. Revisit the place-value chart.
- Q3** Revisit the ‘Missing Words’ activity from Lesson Plan 1, Teaching Group.
- Q5–6** Use NTO 4.4 ‘Number Line: Patterns’ to review location of numbers, comparing larger and smaller. It may also be useful to revisit the place-value chart.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Extending the complexity of the ordering of the numbers, by having the student create a scaled number line.

Number and place value

Recognise, represent and order numbers to at least tens of thousands (ACMNA072) 

Year 4: Assessment Task Card

4.3

Unit
3

Place Value

Resources: A4 paper

- 1 Give each student a sheet of paper. Have them write three 5-digit numbers.
- 2 Have students select one of their numbers and expand it.
- 3 Have students select another one of their numbers, then expand and rename the number.
- 4 With the third number, have students identify the value of the thousands. Ask students to write how they worked this out.
- 5 For students who require extension, have them select one of their numbers and draw a representation of it.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073) 

Year 4: Assessment Task Card

4.3

Unit
3

Place Value

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review what a 5-digit number is. Revisit the place-value chart.
- Q2–3** Have the student use a number expander or NTO 4.7 ‘Number Expander’ to expand numbers and rename them.
- Q4** Review the place-value chart (NTO 4.5 ‘Place-Value Mat: Millions’ could be used). Review the different columns and what they mean.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Challenging the student to find all representations of a particular number, i.e. digit, words, expanded form, renamed and modelled with different equipment, e.g. MAB.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073) 

Year 4: Assessment Task Card

4.4

Unit
4

Length and Temperature

Resources: A4 paper, one ruler per student, five Unifix blocks per student, NTO 4.8 'Thermometer'

- 1 Give each student a sheet of paper and a ruler. Ask them to draw and label a 10 cm line on the paper.
- 2 Ask them to build a tower of five Unifix blocks, measure the length of the tower and record the length on the paper.
- 3 Ask students to list three things that would be measured in centimetres.
- 4 Ask students to list three things that would be measured in metres.
- 5 Using NTO 4.8 'Thermometer', set a temperature and have students record this on their page.
- 6 For students who require extension, set two temperatures on NTO 4.8 'Thermometer' and have students record the two temperatures and find the difference.

Using units of measurement

Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084) 

Year 4: Assessment Task Card

4.4

Unit
4

Length and Temperature

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review how to use a ruler with the student, revisiting the number scale and the units on the ruler.
- Q3–4** Use the *PowerPoint* presentations students created in Lesson Plan 2, Independent Tasks, Task 2, and discuss which types of objects are measured in centimetres and which are measured in metres. The student could also revisit measuring objects in the classroom.
- Q5** Revisit the use of the thermometer and the reading of the scale, using NTO 4.8 'Thermometer'.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Having the student work with more complicated differences, perhaps moving into negative temperatures.

Using units of measurement

Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084) 

Year 4: Assessment Task Card

4.5

Unit
5

Mass and Capacity

Resources: A4 paper, three objects to weigh (e.g. a shoe, a ball and a pencil case), three containers, measuring equipment (e.g. scales)

- 1 Give each student a sheet of paper. Ask them to write down the order of the mass of three objects from lightest to heaviest.
- 2 Ask students to estimate the mass of each object.
- 3 Have students measure and record the mass of each object.
- 4 Ask students to list three things that would be measured in litres.
- 5 Ask students to list three things that would be measured in millilitres.
- 6 For students who require extension, show them three containers and ask them to write an explanation of how to find the capacity of the three containers using only water.

Using units of measurement

Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084) 

Year 4: Assessment Task Card

4.5

Unit
5

Mass and Capacity

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–3** Review how to estimate the mass of an object, then weigh it on scales. Check that the student is reading the scales correctly, and waiting for the scales to settle at zero before weighing.
- Q4–5** Review the difference between millilitres and litres. Using containers marked with the different units, have the student measure 2 mL and 2 L, and compare.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Having the student work with conversions between each of the unit sets, i.e. millilitres and litres, grams and kilograms.

Using units of measurement

Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084) 

Year 4: Assessment Task Card

4.6

Unit
6

Number Sequences: 3s, 6s and 9s

Resources: A4 paper

- 1 Give each student a sheet of paper. Have them write the 3s number sequence starting at zero, for 10 numbers.
- 2 Then have students write the 3s number sequence starting at 10, for 10 numbers.
- 3 Give students the numbers 12, 18, 24, ... and have them complete the next five numbers of the sequence.
- 4 Ask students to write how they worked out the numbers in the sequence in Question 3.
- 5 Ask students to write a 9s number sequence from any starting point, for six numbers.
- 6 For students who require extension, ask them to write an explanation of the links between the 3s, 6s and 9s number sequences.

Number and place value

Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) 

Year 4: Assessment Task Card

4.6

Unit
6

Number Sequences: 3s, 6s and 9s

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review the 3s number sequence with the aid of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 ‘Hundred Chart’ and NTO 4.4 ‘Number Line: Patterns’).
- Q3–4** Review the 6s number sequence with the aid of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 ‘Hundred Chart’ and NTO 4.4 ‘Number Line: Patterns’). This could be further scaffolded with the concept of AFL scoring to engage interest.
- Q5** Review the 9s number sequence, with the list and observations made. This could be further supported with the use of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 ‘Hundred Chart’ and NTO 4.4 ‘Number Line: Patterns’).

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Having the student extend the examination of links to include the 12s number sequence.

Number and place value

Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) 

Year 4: Assessment Task Card

4.7

Unit
7

Number Sequences: 4s, 8s and 7s

Resources: A4 paper

- 1 Give each student a sheet of paper and a number sequence according to their ability. Have them identify the sequence.
- 2 Give students the numbers 24, 32, 40, ... and have them complete the next four numbers in the sequence.
- 3 Have students write an explanation of how they worked out the next four numbers.
- 4 Have students complete a 7s number sequence, giving five numbers in the sequence from any starting point.
- 5 Ask students to write a 4s number sequence starting at 100 and continuing for the next eight numbers.
- 6 For students who require extension, have them start at 100 and provide the 7s number sequence backwards.

Number and place value

Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) 

Year 4: Assessment Task Card

4.7

Unit
7

Number Sequences: 4s, 8s and 7s

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the different number sequences with the aid of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 'Hundred Chart' or NTO 4.4 'Number Line: Patterns').
- Q2–3** Review the 8s number sequence with the aid of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 'Hundred Chart' and NTO 4.4 'Number Line: Patterns'). This could be further supported by looking at the 4s, and using the concept of doubling.
- Q4** Review the 7s number sequence, with students' *PowerPoint* presentations from Lesson Plan 3, Independent Tasks, Task 2. This could be further supported with the use of Hundred Charts and number lines, either hard copy or electronic (see NTO 4.1 'Hundred Chart' and NTO 4.4 'Number Line: Patterns').
- Q5** Review the 4s number sequence with the aid of Hundred Charts and number lines (extending beyond 100), either hard copy or electronic (see NTO 4.1 'Hundred Chart' and NTO 4.4 'Number Line: Patterns').

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Having the student work with a range of number sequences from any starting point, either forwards or backwards.

Number and place value

Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) 

Year 4: Assessment Task Card

4.8

Unit
8

Regular Shapes

Resources: BLM 17 '1 cm Grid Paper', BLM 18 'Regular and Irregular Shapes', flat blocks

- 1 Give each student a copy of BLM 17 '1 cm Grid Paper' and either a regular or irregular shape (these could be from BLM 18 'Regular and Irregular Shapes'). Have students trace the shape on the 1 cm grid paper.
- 2 Have students record answers to:
 - a Is your shape regular or irregular?
 - b Why is your shape regular or irregular?
 - c What is the area of your shape?
 - d Draw an irregular shape that is larger in area than your shape.
- 3 For students who require extension, have them draw a regular shape to a specified size, e.g. 20 cm².

Shape

Compare the areas of regular and irregular shapes by informal means (ACMMG087) 

Year 4: Assessment Task Card

4.8

Unit
8

Regular Shapes

TARGETED ASSESSMENT

If the student is experiencing difficulty:

Q2a–b Review the difference between regular and irregular shapes. Discuss strategies for identifying if side lengths and angles are equal.

Q2c–d Have the student trace a shape on grid paper and find the area of the shape. Observe how the student counts the squares. Talk about the importance of units. Have the student find a shape that is larger in area than the first one, then trace it and compare the two.

If the student has demonstrated an understanding beyond the skills, consider:

Q3 Challenging the student to draw shapes of a particular area. Have the student practise drawing five-, six- and eight-sided shapes accurately with the aid of 1 cm grid paper.

Shape

Compare the areas of regular and irregular shapes by informal means (ACMMG087) 

Year 4: Assessment Task Card

4.9

Unit
9

2D Shapes

Resources: BLM 17 '1 cm Grid Paper', 2D shapes (flat blocks)

- 1 Give each student a copy of BLM 17 '1 cm Grid Paper' and a number of 2D shapes. Have them trace around the different shapes and identify the name of each shape, the number of edges and the number of vertices.
- 2 Have students create a compound shape with the 2D shapes and record this, including a written description of which common 2D shapes make up the compound shape.
- 3 Have students write a description of a tangram. Ask them to describe how it is created, and then what you do with it.
- 4 For students who require extension, have them create and record a compound shape according to specified criteria, e.g. having six sides and using four different blocks.

Shape

Compare and describe two-dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMMG088) **AC**

Year 4: Assessment Task Card

4.9

Unit
9

2D Shapes

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the names of the different shapes. NTO 4.9 '2D and 3D Shapes' could be used as a matching activity. Review the terms 'edges' and 'vertices' with the student.
- Q2 Review the term 'compound shape' with the student. Have the student practise making compound shapes with two blocks, then three, then four and so on. Review effective recording techniques with the student.
- Q3 Revisit the tangrams created by students in Lesson Plan 2, Whole-Class Introduction. The student could use the template on BLM 21 'Tangram Template' to make their own tangram. Discuss how it is created. Repeat the activity on BLM 22 'Making a Tangram with a Grid'.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4 Challenging the student to 'pull apart' simple compound shapes, leading to more complex shapes such as tangram pictures.

Shape

Compare and describe two-dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMMG088) **AC**

Year 4: Assessment Task Card

4.10

Unit
10

Multiplication Facts (Times Tables)

Resources: A4 paper, two 10-sided dice for each student

- 1 Give each student a sheet of paper and two 10-sided dice. Have students roll the dice and record the numbers, and repeat this five times. Then have students multiply the pairs of numbers together.
- 2 Ask students to produce six multiplication equations that equal 24.
- 3 Ask students to draw four arrays to represent the total of 12.
- 4 Have students show the multiplication equation 7×2 on a number line.
- 5 For students who require extension, have them find the total cost of three balls at \$9 each and explain how they did this.

Number and place value

Recall multiplication facts up to 10×10 and related division facts (ACMNA075) 

Year 4: Assessment Task Card

4.10

Unit
10

Multiplication Facts (Times Tables)

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review multiplication facts using BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2'.
- Q2** Review links between tables sets. This could be supported with the posters created by students in Lesson Plan 3, Independent Tasks, Task 1, or by looking at the links on BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2'.
- Q3** Review the concept and representation of arrays. Use the activities from Lesson Plan 1.
- Q4** Use NTO 4.4 'Number Line: Patterns' to review the representation of tables on a number line.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Providing more complex tables or applying the student's knowledge to word problems.

Number and place value

Recall multiplication facts up to 10×10 and related division facts (ACMNA075) 

Year 4: Assessment Task Card

4.11

Unit
11

Multiplication Facts and Related Division Facts

Resources: A4 paper

- 1 Give each student a sheet of paper and have them draw an array for 4×3 .
- 2 Ask students to list as many multiplication equations as they can related to the array.
- 3 Ask students to list as many division equations as they can related to the array.
- 4 Provide students with the equation $6 \times 5 = ?$ Ask students to solve it and then to give a related division equation.
- 5 For students who require extension, have them find how many movie tickets were bought, if the total cost was \$72 and each ticket cost \$9. Have students explain how they did this.

Number and place value

Recall multiplication facts up to 10×10 and related division facts (ACMNA075) 

Year 4: Assessment Task Card

4.11

Unit
11

Multiplication Facts and Related Division Facts

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review what an array is, what it looks like and how to draw it. The student could work with counters to model this.
- Q2** Use a physical array to discuss multiplication equations. Look at rows and columns. Also look at equations that are not as obvious such as $x1$, leading to the fact families.
- Q3** Review the concept that the inverse of multiplication is division. Then look at the equations from Question 2 and invert them. Alternatively, the student could return to tables charts such as BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2'.
- Q4** This could be reviewed using tables charts (e.g. BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2') or the multiplication grids produced by students in Lesson Plan 1, Independent Tasks, Task 1.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Providing more word-based problems, or equations working with tables up to $\times 12$, or tables based on multiples of 10 or 100.

Number and place value

Recall multiplication facts up to 10×10 and related division facts (ACMNA075) 

Year 4: Assessment Task Card

4.12

Unit
12

Mapping

Resources: BLM 17 '1 cm Grid Paper'

- 1 Give each student a copy of BLM 17 '1 cm Grid Paper'. Ask them to draw an island shape on the grid, then add the following: a lake, a hut, a beach, a treehouse and a volcano.
- 2 Have students create a legend to add the following: five trees; roads between the lake, hut, treehouse and volcano; three quicksand pits.
- 3 Have students create a scale for their map.
- 4 Ask students to write a description of how they would travel between the lake, the treehouse and the volcano.
- 5 Have students add an 'X' for the treasure on their map, and write a description of how to get from the beach to the treasure.
- 6 For students who require extension, have them find the distance (using their scale) from the beach to the treasure.

Location and transformation

Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090) 

Year 4: Assessment Task Card

4.12

Unit
12

Mapping

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2** Review what a legend is. Examine a number of maps with different legends. Revisit looking at the different features of a map and finding the common identifiers.
- Q3** Review the concept of scale. Revisit maps to see the effect of scale. Make comparisons of normal-sized objects and relate on a smaller scale.
- Q4–5** Have the student practise working with simple directions, e.g. taking five steps forwards/backwards, and then relating to objects around them. Have the student complete the movements to get a 'feel' for directions.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Challenging the student with mapping pathways and then finding the distance using the scale on the map.

Location and transformation

Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090) 

Year 4: Assessment Task Card

4.13

Unit
13

Addition and Subtraction

Resources: A4 paper, four dice for each student

- 1 Give each student a sheet of paper and four dice. Have students roll the dice and record four 4-digit numbers. Note: this activity can be modified by using fewer dice.
- 2 Have students order the four numbers from smallest to largest. Then have students find the difference between the largest and the smallest numbers.
- 3 Ask students to add the two remaining numbers.
- 4 Have students then roll two dice and decide to either add or find the difference between the two numbers. Then have students make a pattern by multiplying the answer by 10 each time.
- 5 For students who require extension, have them add or subtract two of their initial numbers on a number line.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073) 

Year 4: Assessment Task Card

4.13

Unit
13

Addition and Subtraction

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review what a 4-digit number is.
- Q2 Review what the term 'difference' means. Remind the student to write the largest number first. Review some of the strategies used for subtraction in Lesson Plan 2.
- Q3 Review the concept of addition. Review some of the strategies from Lesson Plan 1. Concrete materials could also be used, e.g. MAB.
- Q4 Review the patterns of increasing by a factor of 10 each time. Begin with simple equations and patterns and build to ones that are more complex.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5 Providing more word-based problems, or equations using numbers with more than four or five digits.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073) 

Year 4: Assessment Task Card

4.14

Unit
14

Perimeter and Area

Resources: BLM 17 '1 cm Grid Paper', ruler, flat shapes (e.g. pattern blocks), rulers

- 1 Give each student a copy of BLM 17 '1 cm Grid Paper' and a flat shape. Have students find the perimeter of the shape and record it on the BLM using their preferred method.
- 2 Have students find the area of the shape and record it.
- 3 Provide students with a second shape and have them make a compound shape and trace onto their grid.
- 4 Have them find the perimeter and area of the second shape.
- 5 Have students identify the shape of the largest area.
- 6 For students who require extension, provide them with an area, and have them construct a compound shape with this area.

Using units of measurement

Compare objects using familiar metric units of area and volume (ACMMG290) 

Year 4: Assessment Task Card

4.14

Unit
14

Perimeter and Area

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review finding perimeter with simple shapes and then irregular shapes. Revisit the Teaching Group activities from Lesson Plan 1.
- Q3–4** Review the process of counting squares to find the area of a shape. Review the possibility of dividing the shape into familiar shapes, e.g. squares and rectangles, recording the areas and then adding.
- Q5** Areas can be compared by cutting out and overlaying one shape on another. Remind the student to examine units as well.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Challenging the student with more complex shapes, e.g. triangles.

Using units of measurement

Compare objects using familiar metric units of area and volume (ACMMG290) 

Year 4: Assessment Task Card

4.15

Unit
15

Multiplication and Division Strategies

Resources: A4 paper

- 1 Give each student a sheet of paper and three multiplication equations, e.g. $4 \times 6 =$, $5 \times 7 =$, $10 \times 9 =$. Have students write the reversed equivalent equations, i.e. $6 \times 4 =$, $7 \times 5 =$, $9 \times 10 =$.
- 2 Have students draw the arrays for one pair of the equations (e.g. 4×6 and 6×4).
- 3 Give students a number, e.g. 4, and have them double it and double it again, then write the related multiplication equations.
- 4 Give students another number, e.g. 20, and have them halve it, and write the related division equations.
- 5 For students who require extension, have them draw an array of 4×5 and then have them 'hide' half of it.

Number and place value

Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076) 

Year 4: Assessment Task Card

4.15

Unit
15

Multiplication and Division Strategies

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the concept of commutativity, where the order the equation is written does not matter. Use materials such as BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2' to find equations that are reversed and equal.
- Q2** Practise drawing arrays (NTO 4.10 'Arrays' can be used). Model different arrays and make the links to the multiplication equations.
- Q3–4** Review the concepts of doubling and halving. Concrete materials can be used to model the process, with the student physically doubling or halving sets of materials.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Having the student use the ideas of arrays, doubling and halving to create their own equations and questions or problems.

Number and place value

Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076) 

Year 4: Assessment Task Card

4.16

Unit
16

More Multiplication and Division Strategies

Resources: A4 paper, two 10-sided dice per student

- 1 Give each student a sheet of paper and two 10-sided dice. Have students roll the two dice and record the two numbers, then write two multiplication and two division equations using those numbers.
- 2 Have students record all of the factors of the rolled multiplied dice.
- 3 Have students multiply the multiplication equation by 10 and 100.
- 4 For students who require extension, have them write a word problem of their equation (either the multiplication or division, according to their ability).

Number and place value

Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076) 

Year 4: Assessment Task Card

4.16

Unit
16

More Multiplication and Division Strategies

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review multiplication using BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2' or BLM 30 'Multiplication Grid'. Review the process of division with the multiplication grid to find answers. Have the student practise writing equations.
- Q2** Review factors by looking at all of the multiplication equations with the same answers. This could be completed using BLM 3 'Tables Chart 1' and BLM 4 'Tables Chart 2' or BLM 30 'Multiplication Grid'.
- Q3** Review the concepts of multiplying by 10 on the place-value chart and with calculators. Repeat with multiplying by 100.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4** Having the student incorporate multiplication and division content into questions about measurement and practise applying their knowledge.

Number and place value

Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076) 

Year 4: Assessment Task Card

4.17

Unit
17

Volume

Resources: BLM 32 'Isometric Dot Paper', interlocking cubes, small container

- 1 Give each student a copy of BLM 32 'Isometric Dot Paper' and interlocking cubes. Have students make three different models using 10 cubes each.
- 2 Have students record two views of one of the models on the dot paper.
- 3 Have students note the volume under the model.
- 4 Show students a small container and ask them to write an explanation of how to estimate the volume of the container, including what measuring unit they would use and why.
- 5 For students who require extension, have them draw a model that would require 15 interlocking cubes, without using any modelling equipment.

Using units of measurement

Compare objects using familiar metric units of area and volume (ACMMG290) 

Year 4: Assessment Task Card

4.17

Unit
17

Volume

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review constructing models using interlocking cubes. Provide instructions, such as those on BLM 33 'Creating from Sketches', to help.
- Q2 Review the drawing of models using isometric dot paper. NTO 4.11 'Isometric Dot Paper' could be used to highlight teaching points.
- Q3 Review that 1 interlocking cube is 1 unit and 8 interlocking cubes are 8 units, providing a volume of 8 interlocking cubes.
- Q4 Review packing activities from Lesson Plan 1. Use different materials to pack into a basic container.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5 Challenging the student with more complex shapes to visualise and then express in a drawing or as a written description.

Using units of measurement

Compare objects using familiar metric units of area and volume (ACMMG290) 

Year 4: Assessment Task Card

4.18

Unit
18

Decimals to Two Decimal Places

Resources: A4 paper

- 1 Give each student a sheet of paper and a set of decimal numbers, e.g. 2.45, 3.07, 4.6, 3.90, 2.42. Ask them to record the numbers in order from smallest to largest.
- 2 Have students select one of the numbers with two decimal places and write it in words.
- 3 Ask students to draw a number line and place all of the listed numbers. Point to the number line and ask questions, e.g. 'Why did you place 4.6 here? Would 3.4 be smaller or larger than 4.6?'
- 4 For students who require extension, give them a decimal number, e.g. 4.126. Ask them to round the number to the nearest hundredth and add the number to their number line (marked in a different colour).

Fractions and decimals

Recognise that the place-value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079) 

Year 4: Assessment Task Card

4.18

Unit
18

Decimals to Two Decimal Places

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the ordering of numbers with no decimal places.
- Q2** Use the cards from BLM 34 'Decimal Numbers and Words 1'. Give the student a number card and have them find the matching word card.
- Q3** Use LO: *L2005 'Scale matters: hundreds'* and have the student review the use of number lines.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4** Having the student order a set of decimal numbers to three decimal places and place them on a number line.

Fractions and decimals

Recognise that the place-value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079) 

Year 4: Assessment Task Card

4.19

Unit
19

Chance

Resources: A4 paper

- 1 Give each student a sheet of paper and a list of events, e.g. will go home today, will have sport today, will eat dinner at 6 pm. Have students:
 - a use appropriate terminology to describe the chance of each event happening
 - b order the events from 'least likely' to 'most likely'.
- 2 Have students write two examples of everyday events where one cannot happen if the other happens.
- 3 Have students explain what happens if we have some counters in a bag, one counter is taken out, the colour recorded and the counter replaced.

Chance

Describe possible everyday events and order their chances of occurring (ACMSP092) 

Identify everyday events where one cannot happen if the other happens (ACMSP093) 

Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094) 

Year 4: Assessment Task Card

4.19

Unit
19

Chance

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1a** Have the student practise identifying which events are likely and which are not likely. Play matching activities, using BLM 36 'Chance Words' with particular events.
- Q1b** Have the student practise ordering chance language and then chance events using BLM 36 'Chance Words'. This could be completed in timeline format.
- Q2** Review chance situations that are everyday events where one cannot happen if the other happens. Revisit the examples created by students both in Lesson Plan 2 and as home tasks.
- Q3** Review Student Book p. 78 'Five Counters in a Bag' from Lesson Plan 3. Have students repeat the activity with different numbers and combinations of counters.

Chance

Describe possible everyday events and order their chances of occurring (ACMSP092) 

Identify everyday events where one cannot happen if the other happens (ACMSP093) 

Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094) 

Year 4: Assessment Task Card

4.20

Unit
20

Collecting Data

Resources: A4 paper

- 1 Give each student a sheet of paper and a topic, e.g. 'Did you walk to school today?' and 'Will (or did) you watch TV today?' Have students survey their classmates and collect the data.
- 2 Then have students represent their data either on a Venn diagram or in a 2-way table.
- 3 Have students list three statements they can make as a result of their data collection.
- 4 For students who require extension, have them write a survey question that has only two possible answers on the topic of books.

Data representation and interpretation

Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095) 

Year 4: Assessment Task Card

4.20

Unit
20

Collecting Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review strategies for collecting data, e.g. by lists or tables. Have the student work with small amounts of data, moving to larger sets.
- Q2–3** Review a simple Venn diagram and have the student interpret the information. Continue making Venn diagrams with materials such as two hoops and sticky notes. Review the structure of a 2-way table. Have the student create a table on the floor using metre rulers, and sticky notes or masking tape. Practise reading information in the tables.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4** Having the student work with larger data sets using tools such as *Excel* to aid in the process of data collection and presentation.

Data representation and interpretation

Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095) 

Year 4: Assessment Task Card

4.21

Unit
21

Number Patterns
Resources: A4 paper

- 1 Give each student a sheet of paper and a number pattern, e.g. 3, 7, 11, 15, and have them:
 - a continue the pattern with the next three numbers
 - b write a description of the pattern.
- 2 Give students a starting number, e.g. 4, and have them write:
 - a a pattern based on addition
 - b a different pattern based on multiplication
 - c a description for each of their patterns.
- 3 Have students give two examples of where number patterns can be found in everyday life.
- 4 For students who require extension, have them write a number pattern starting at 200 and count backwards, writing a description of the pattern.

Patterns and algebra

Explore and describe number patterns resulting from performing multiplication (ACMNA081) 

Year 4: Assessment Task Card

4.21

Unit
21

Number Patterns

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Revisit number patterns and how to find the pattern if provided with a number set. Give the student simple number patterns and have them identify the patterns. Have the student describe the main elements of the pattern, i.e. the starting number, whether it is addition or multiplication and what the operation is, e.g. + 2.
- Q2 Review the difference between a pattern based on addition and one based on multiplication, i.e. a multiplication pattern increases much quicker.
- Q3 Re-examine the number patterns on the collages students made in Lesson Plan 3, Independent Tasks, Task 1.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4 Having the student work with numbers both forwards and backwards and with large numbers.

Patterns and algebra

Explore and describe number patterns resulting from performing multiplication (ACMNA081) 

Year 4: Assessment Task Card

4.22

Unit
22

Angles

Resources: A4 paper, rulers, protractors

- 1 Give each student a sheet of paper and ask them to draw a right angle and label it. Allow students to use the equipment as they require.
- 2 Have students draw an angle smaller than a right angle (an acute angle) and label it.
- 3 Draw an angle on the board that is greater than a right angle. Have students note if it is less than or greater than a right angle.
- 4 For students who require extension, have them write the numbers 4 and 5 on their page, and identify any angles in the numbers.

Geometric reasoning

Compare angles and classify them as equal to, greater than or less than a right angle (ACMMG089) 

Year 4: Assessment Task Card

4.22

Unit
22

Angles

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Revisit what a right angle is, using a protractor and in activities such as those in Lesson Plan 1, Tuning In. Identify the name of the angle with various examples and have the student draw right angles.
- Q2–3** Have the student compare different angles to right angles. Have the student order angles from smallest to largest and identify which are less than or greater than a right angle, measuring angles to make the comparison.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4** Having the student identify different types and sizes of angles in different shapes and objects.

Geometric reasoning

Compare angles and classify them as equal to, greater than or less than a right angle (ACMMG089) 

Year 4: Assessment Task Card

4.23

Unit
23

Equivalent Fractions

Resources: A4 paper

- 1 Give each student a sheet of paper. Ask them to record the fraction $\frac{3}{4}$, and to draw a diagram showing $\frac{3}{4}$.
- 2 Ask students to give an equivalent fraction to $\frac{3}{4}$, and draw a diagram to represent this.
- 3 Say: 'You have a long chocolate bar divided into tenths, where $\frac{3}{10}$ are strawberry, $\frac{3}{10}$ are peppermint and $\frac{4}{10}$ are plain chocolate.' Have students draw a diagram and colour the chocolate bar.
- 4 Ask: 'What would be $\frac{4}{10}$ be equivalent to in fifths?'
- 5 For students who require extension, have them write three equivalent fractions for $\frac{1}{4}$.

Fractions and decimals

Investigate equivalent fractions used in contexts (ACMNA077) 

Year 4: Assessment Task Card

4.23

Unit
23

Equivalent Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the process of writing fractions: What number is the numerator and what does it represent? What number is the denominator and what does it represent? Review drawing diagrams of fractions (NTO 4.16 'Comparing Shapes' could be used).
- Q2–4** Review equivalent fractions (NTO 4.16 'Comparing Shapes' could be used). Revisit the 'Half and Half Again' charts from Lesson Plan 1, Tuning In, perhaps extending to quarters.
- Q3** Practise dividing strips into equal amounts and then identifying the value of each section, and colouring the sections. This could be supported with the student's fraction wall from Lesson Plan 3, Independent Tasks, Task 2.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Having the student extend to more complex fractions and converting between equivalent fractions without physical models.

Fractions and decimals

Investigate equivalent fractions used in contexts (ACMNA077) 

Year 4: Assessment Task Card

4.24

Unit
24

Counting with Fractions

Resources: A4 paper

- 1 Give each student a sheet of paper and two fractions: $\frac{5}{3}$ and $1\frac{1}{6}$. Have them identify the mixed number.
- 2 Have students change the mixed number to an improper fraction.
- 3 Have students compare the two fractions, and identify which one is larger.
- 4 Have students start at $1\frac{1}{6}$, and write the next seven numbers in the counting sequence, counting by sixths.
- 5 Ask students to draw a number line showing the counting sequence.

Fractions and decimals

Count by quarters, halves and thirds, including mixed numerals. Locate and represent these fractions on a number line (ACMNA078) 

Year 4: Assessment Task Card

4.24

Unit
24

Counting with Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the difference between mixed numbers and improper fractions. The student could complete sorting activities with cards.
- Q2 Review the process of changing a mixed number to an improper fraction. Provide the student with simple examples and build to more complex ones.
- Q3 Have the student compare fractions with common denominators, then move to denominators of the same family. The student could use models to make comparisons.
- Q4 Have the student order cards in the correct counting sequence, then move to writing simple fraction counting sequences.
- Q5 Have the student label missing fractions on number lines, then move to ordering fractions on number lines and, finally, creating the number lines. Work with familiar fractions first, e.g. quarters.

Fractions and decimals

Count by quarters, halves and thirds, including mixed numerals. Locate and represent these fractions on a number line (ACMNA078) 

Year 4: Assessment Task Card

4.25

Unit
25

Time

Resources: A4 paper, NTO 4.17 'Clocks: Advanced'

- 1 Give each student a sheet of paper. Use NTO 4.17 'Clocks: Advanced' and show students a time on the analogue clock. Have them record the digital equivalent. Repeat this, so students have three times recorded.
- 2 Have students sketch an analogue clock, and show 7:45 (a quarter to 8) on the clock.
- 3 Have students write three time facts, e.g. 1 minute = 60 seconds.
- 4 Ask students to write three activities where am and pm time is important.
- 5 For students who require extension, have them draw and write all of the representations they can for 3:15 pm.

Using units of measurement

Convert between units of time (ACMMG085) 

Year 4: Assessment Task Card

4.25

Unit
25

Time

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review time using NTO 4.17 'Clocks: Advanced'. Have the student record times, as well as come to the board and create times. Review the different elements of an analogue clock.
- Q3** Revisit time facts and work with the student's conversion chart from Lesson Plan 2, Independent Tasks, Task 2. Revisit common links, e.g. 1 minute = 60 seconds. The student could create and play a matching game of cards with equivalent values.
- Q4** Review the difference between am and pm. Discuss when am and pm are used. Ideas can be found in media such as newspapers, e.g. TV guides, weather and tide charts, advertisements.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5** Challenging the student with more complex times to the minute, on both digital and analogue clocks. The student could also work with 24-hour time.

Using units of measurement

Convert between units of time (ACMMG085) 

Year 4: Assessment Task Card

4.26

Unit
26

Time Problems

Resources: BLM 48 'Train Timetable', A4 paper

- 1 Give a copy of BLM 48 'Train Timetable' and a sheet of paper to each student. Ask them to write down what format the times are given in.
- 2 Have students find and record the answers to:
 - a If I get on the train at Westville at 09:54, what time will I arrive at North Station?
 - b How long is the trip between Woodside and Pikefield? Give an example.
 - c If I had to be in Kingsville by 5 pm, what is the latest train I could catch from South Station?
 - d If the earliest I could leave Concord is 1 pm, what is the earliest I could be at South Station?
- 3 For students who require extension, have them find the time taken for the whole train trip, and the length of time between each station.

Using units of measurement

Use am and pm notation and solve simple time problems (ACMMG086) 

Year 4: Assessment Task Card

4.26

Unit
26

Time Problems

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the different time formats: analogue, digital, 24-hour, am and pm. Have the student complete card sorting activities. The cards could be created from BLM 44 'Clocks', BLM 46 'am and pm Times' and BLM 47 '24-Hour Times'.
- Q2 Review how to read timetables. Have the student look at the time formats, how the information is organised and presented, as well as how to locate information in the timetable. Practise with a variety of transport timetables.

If the student has demonstrated an understanding beyond the skills, consider:

- Q3 Challenging the student with problems, e.g. finding the lengths of journeys using more complex timetables across 24-hour periods.

Using units of measurement

Use am and pm notation and solve simple time problems (ACMMG086) 

Year 4: Assessment Task Card

4.27

Unit
27

Fractions and Decimals

Resources: A4 paper, three 10-sided dice, BLM 50 'Hundreds Squares'

- 1 Give each student a sheet of paper and three 10-sided dice. Have students roll two dice and write a decimal number with the numbers rolled, e.g. 3.2.
- 2 Have students write the decimal as a fraction and in words.
- 3 Have students roll three dice and write a decimal number with two decimal places.
- 4 Have students write the decimal as a fraction and in words.
- 5 Give students a hundreds square from BLM 50 'Hundreds Squares' and have them shade the square to represent the decimal part of the number.
- 6 For students who require extension, have them circle the largest of the two numbers.

Fractions and decimals

Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079) 

Year 4: Assessment Task Card

4.27

Unit
27

Fractions and Decimals

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 & 3** Review what a decimal number is, with the support of a place-value chart.
- Q2** Review the links between tenths as a fraction and as a decimal.
- Q4** Review the links between hundredths as a fraction and as a decimal. This could be supported with NTO 4.14 'Hundred Chart: FDP'.
- Q5** Using NTO 4.14 'Hundred Chart: FDP', have the student practise recognising fractions and decimals from the shaded image, and then vice-versa with the student shading the square.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Providing a larger set and a mix of decimals and fraction representations for the student to order and identify as largest and smallest.

Fractions and decimals

Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079) 

Year 4: Assessment Task Card

4.28

Unit
28

Number Sentences

A4 paper

- 1 Give each student a piece of paper and a missing number sentence (according to their ability) with addition, e.g.
 $14 + \square = 40$. Have students solve for the missing number.
- 2 Give students a missing number sentence (according to their ability) with subtraction, e.g. $50 - \square = 36$. Have students solve for the missing number and then write an explanation of how they solved the problem.
- 3 Give students a problem, e.g. 'When a number is added to 17, the answer is the same as 56 minus 21. What is the number?' Have students solve the problem.
- 4 For students who require extension, have them write a missing number sentence that has both addition and subtraction, and have them solve the problem.

Patterns and algebra

Use equivalent number sentences involving addition and subtraction to find unknown quantities (ACMNA083) 

Year 4: Assessment Task Card

4.28

Unit
28

Number Sentences

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Have the student work with equations based on basic facts, e.g. to 10 or 20. Have the student model the equations with equipment to find the missing number.
- Q3** Review problem-solving techniques, e.g. break down the problem, identify the operation, express as an equation. Allow the student to use a calculator if the numeric calculations are too difficult.

If the student has demonstrated an understanding beyond the skills, consider:

- Q4** Providing examples that include multiplication and division. The student could also be encouraged to work with larger numbers.

Patterns and algebra

Use equivalent number sentences involving addition and subtraction to find unknown quantities (ACMNA083) 

Year 4: Assessment Task Card

4.29

Unit
29

Displaying Data

Resources: BLM 17 '1 cm Grid Paper', data set from a newspaper

- 1 Give each student a copy of BLM 17 '1 cm Grid Paper'. Have students devise a question about school to collect data on, e.g. favourite subject, favourite part of the day, favourite excursion.
- 2 Allow students a set time to collect data.
- 3 Have students represent their data as a graph on the grid paper.
- 4 Have students write three statements about their collected data.
- 5 For students who require extension, provide them with data from a source such as a newspaper and have them interpret. Have students write three statements about the data.

Data representation and interpretation

Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs, where one picture can represent many data values (ACMSP096) 

Year 4: Assessment Task Card

4.29

Unit
29

Displaying Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Give the student a range of questions to select from or key words to develop ideas.
- Q2 Review efficient methods of collecting data, e.g. in a table.
- Q3 Review how to construct either a picture graph or a column graph, by using objects or values on the axis.
- Q4 Verbalise observations of graphs, e.g. 'Which is the greatest? Which is the least represented? Which values have equal representation?' Revisit Student Book p. 118 'Column Graphs' from Lesson Plan 3.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5 Providing a larger set of data that has values in the hundreds, so the student has to consider and develop the scale of the graphical representation.

Data representation and interpretation

Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (ACMSP096) 

Year 4: Assessment Task Card

4.30

Unit
30

Interpreting Data

Resources: BLM 53 'Fruit Graph', graph from a newspaper

- 1 Give each student a copy of BLM 53 'Fruit Graph'. Have them answer the questions:
 - a What is the most popular fruit?
 - b What two fruits have the same popularity?
- 2 Have students write three different facts under the graph.
- 3 Have students create a table of values from the graph.
- 4 Ask students to describe which is their preferred representation of the data, and why.
- 5 For students who require extension, provide them with a graph from a source such as a newspaper and have them create a table of values.

Data representation and interpretation

Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097) 

Year 4: Assessment Task Card

4.30

Unit
30

Interpreting Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Practise interpreting simple graphs where 1 symbol = 1 data value.
- Q2 Review interpreting information from graphs and tables. Work with the straightforward information first, e.g. most common, least common, items with particular values, items that are equal.
- Q3 Review how to construct a table of values, e.g. labels on columns and rows, how to represent items.
- Q4 Review different data representations, including picture graphs, column graphs, tables and Venn diagrams.

If the student has demonstrated an understanding beyond the skills, consider:

- Q5 Providing a graph that has larger values to work with and interpret. Have the student interpret as a different type of graph, as well as a table of values.

Data representation and interpretation

Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097) 

Year 4: Assessment Task Card

4.31

Unit
31

Money

Resources: A4 paper, BLM 54 'Coins', BLM 55 'Banknotes', glue

- 1 Give each student a selection of notes and coins from BLM 54 'Coins' and BLM 55 'Banknotes', according to their abilities. Have students stick these to the top of a sheet of paper.
- 2 Have students find the total of all of the coins.
- 3 Have students find the change of the coins from the nearest dollar.
- 4 Have students find the total of all of their notes and coins.
- 5 Give students three prices, e.g. \$2.50, \$3.75 and \$1.21. Have them find the total (using calculators if required) and then find the change from \$10.00.
- 6 Ask students to list three things they discovered about money from another country.
- 7 For students who require extension, have them state the different coin combinations that could be used to make \$4.85.

Money and financial mathematics

Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080) 

Year 4: Assessment Task Card

4.31

Unit
31

Money

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2 & 4** Have the student practise counting techniques. Remind the student of strategies, e.g. starting with the largest value and counting on.
- Q3 & 5** Review what change is. Again review strategies, e.g. counting up to. Use real money or coins and notes from BLM 54 'Coins' and BLM 55 'Banknotes'.
- Q5** Have the student review addition. Use calculators, and check that the student is putting in the decimal values and reading the answers correctly.
- Q6** Review money from different countries, particularly one with a LOTE focus. NTO 4.18 'Money from Other Countries' could also be used. Revisit the posters developed by the student in Lesson Plan 3, Independent Tasks, Task 1.

If the student has demonstrated an understanding beyond the skills, consider:

- Q7** Providing the student with longer lists of items to find the total of, with more rounding elements, and also to find the change.

Money and financial mathematics

Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080) 

Year 4: Assessment Task Card

4.32

Unit
32

Word Problems

Resources: A4 paper

- 1 Give each student a sheet of paper. Read out a word problem. For example: 'At the bus station there were 10 buses, which had 8 wheels each. How many wheels were there?' Have students draw a diagram of the problem.
- 2 Have students write and solve a related number sentence.
- 3 Have students write a brief explanation of how they solved the problem.
- 4 Give students an equation to solve, e.g. $77 \div 11 = .$
- 5 Have students then write a word problem for the equation.
- 6 For students who require extension, have them write a word problem that will require the person solving the equation to use both addition and subtraction.

Patterns and algebra

Solve word problems by using number sentences involving multiplication or division where there is no remainder (ACMNA082) **AC**

Year 4: Assessment Task Card

4.32

Unit
32

Word Problems

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–3** Give the word problem in written, rather than verbal form. If the student cannot draw a diagram of the equation, provide some modelling equipment, e.g. counters, to represent the wheels.
- Q4** Review the idea that division and multiplication are inverse operations and multiplication facts can be used to solve division problems.
- Q5** Provide modelling equipment, then have the student model the equation, and then try to write a word problem. The student could also work with smaller numbers.

If the student has demonstrated an understanding beyond the skills, consider:

- Q6** Having the student write and/or solve problems that require more than one step. For example: 'At the shop I bought 3 items that cost \$2.50 each. What was the total change I received from \$10.00?'

Patterns and algebra

Solve word problems by using number sentences involving multiplication or division where there is no remainder (ACMNA082) **AC**

Year 4: Assessment Task Card

4.33

Unit
33

Patterns

Resources: a pattern with symmetry, BLM 17 '1 cm Grid Paper', coloured pencils or felt pens

- 1 Display a pattern containing symmetry, either on the IWB or on hard copy (e.g. in a book).
Have students identify:
 - a the shapes in the pattern
 - b if the pattern has symmetry and how they know.
- 2 Give each student a copy of BLM 17 '1 cm Grid Paper', and ask them to create a simple pattern with an element of symmetry.
- 3 Have students describe their pattern.

Location and transformation

Location and transformation: Create symmetrical patterns, pictures and shapes with and without digital technologies. (ACMMG091) 

Year 4: Assessment Task Card

4.33

Unit
33

Patterns

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1a** Review different common 2D shapes. Practise identifying each of the shapes by name (matching activities could aid in this area).
- Q1b** Review the concept of symmetry. Symmetry in nature could be examined, e.g. butterflies, flowers and faces.
- Q2–3** Have the student practise creating patterns with concrete materials, e.g. pattern blocks, or electronically. Extend their understanding by incorporating symmetry into the patterns.

Location and transformation

Create symmetrical patterns, pictures and shapes with and without digital technologies (ACMMG091) 