

Year 5: Assessment Task Card

5.1

Unit
1

Place Value

Resources: sheets of paper, pen, NTO 5.2 'Place-Value Mat with Decimals', NTO 5.3 'Number Expander', NTO 5.4 'Extended Notation: Number Cards'

- 1 On a sheet of paper, have the student write the number 42 368.
- 2 Have the student write the number in words.
- 3 Have the student expand the number.
- 4 Have the student write three numbers larger than the number.
- 5 To extend the activity: have the student write a 6-digit number that has two internal zeros, and then write this number in words.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Year 5: Assessment Task Card

5.1

Unit
1

Place Value

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review writing numbers based on place-value charts. Use NTO 5.2 'Place-Value Mat with Decimals' to support this review and work with 3-digit numbers only.
- Q2 Practise writing numbers in words, beginning with numbers less than 100. Have the student develop a word chart to assist with the spelling of the numbers.
- Q3 Use NTO 5.3 'Number Expander' and NTO 5.4 'Extended Notation: Number Cards' to revisit number structure and expanding numbers.
- Q4 Have the student practise ordering numbers from smallest to largest noting the strategies. When writing numbers that are larger, have the student consider strategies like counting on.

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

- Q5 Having the student work with larger numbers in all forms up to millions and also with decimal numbers.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Year 5: Assessment Task Card

5.2

Unit
2

Addition and Subtraction

Resources: sheets of paper, pen, four dice

- 1 Have the student roll the four dice and write the largest 4-digit number.
- 2 Have them roll the dice again and write the smallest 4-digit number.
- 3 Have the student find the total of the two numbers.
- 4 Have the student describe the strategies they used to find the total.
- 5 Have the student then find the difference between their two numbers.
- 6 To extend the activity: provide the student with two numbers, e.g. 56 325 and 75 198, and have them find the total and the difference.

Number and place value

Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099) 

Year 5: Assessment Task Card

5.2

Unit
2

Addition and Subtraction

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review how to write the largest number by finding the largest digit, then second largest digit, and so on.
- Q2** Review how to write the smallest number by finding the smallest digit, then second smallest digit, and so on.
- Q3** Review some of the addition strategies from this unit. Reduce the size of the numbers to 2- or 3- digit numbers.
- Q4** Revisit the different strategies explored, e.g. open number lines, vertical addition, adding to tens/hundreds, etc. If the student cannot name the strategies, have them describe in detail how they are completing the calculations.
- Q5** Review some of the addition strategies from this unit. Reduce the size of the numbers to 2- or 3-digit numbers.

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

- Q6** Having the student work with larger numbers in all forms up to millions. They could also look at adding three or more numbers. It may be appropriate to extend the student into negative numbers.

Number and place value

Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099) 

Year 5: Assessment Task Card

5.3

Unit
3

Factors and Multiples

Resources: sheets of paper, pen, two dice, BLM 4 'Rules of Divisibility', BLM 5 'Tables Chart 1', BLM 6 'Tables Chart 2', calculator

- 1 Have the student roll the two dice, record the numbers and multiply.
- 2 Using the answer from Q1, have the student list the first five multiples of the number.
- 3 Using the answer from Q1, have the student find all of the factors of the number.
- 4 Provide the student with a number, e.g. 32, and have them draw a factor tree.
- 5 Provide the student with BLM 4 'Rules of Divisibility' and the number 1 026. Ask the student to identify whether the number is divisible by 3, and write an explanation of why it is or isn't.
- 6 To extend the activity: have the student create a factor tree for the number 1 026.

Number and place value

Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098) 

Year 5: Assessment Task Card

5.3

Unit
3

Factors and Multiples

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Have the student practise multiplication facts. This could be supported with the use of BLM 5 'Tables Chart 1' and BLM 6 'Tables Chart 2'.
- Q2 Review what a multiple is, and provide the student with support for their multiplication facts, e.g. BLM 5 'Tables Chart 1' and BLM 6 'Tables Chart 2' or a calculator.
- Q3 Review what factors are and how to find them. Remind the student to create a process, e.g. divide by 2, then 3, then 4, etc. and then find and record the factors.
- Q4 Revisit the factor trees displayed around the classroom. Remind the student to have the starting number at the top, and then stop looking for factors when they can only be divisible by themselves and 1.
- Q5 Revisit the rule of divisibility for 3. Provide the student with smaller values before moving to larger values.

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

- Q6 Having the student articulate and draw together the concepts of multiples, factors, number sequences and the rules of divisibility.

Number and place value

Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098) 

Year 5: Assessment Task Card

5.4

Unit
4

Length, Area and Volume

Resources: ruler, a rectangular box, sheets of paper, pen, BLM 7 '1 cm Grid Paper', 1 cm cubes, NTO 5.8 'Grid Paper'

- 1 Provide the student with the ruler and rectangular box, have them measure each of the side lengths with the ruler, and record.
- 2 Have the student trace around the base of the box onto grid paper, using BLM 7 '1 cm Grid Paper', and then count the squares to find the area. Have the student record the area in the middle of the traced space.
- 3 Provide the student with 1 cm cubes and have them pack the box to find the volume. Have them record the volume.
- 4 To extend the activity: provide the student with a volume and have them draw a diagram of what the model would look like.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108) 

Year 5: Assessment Task Card

5.4

Unit
4

Length, Area and Volume

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review with the student how to use a ruler. Ensure they are reading the correct scale and lining up the end and the zero on the ruler.
- Q2** Review and practise counting squares to find the area of a shape. Use NTO 5.8 'Grid Paper' to assist, and have the student draw shapes and demonstrate how to find the area. Once confident, have the student work with more complex shapes. Remind the student about the squared units.
- Q3** Revisit volume and the packing of materials. Remind the student of the cubed units.

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

- Q4** Providing the student with a value that may not form a rectangular prism, e.g. 7 cm^3 , and having them draw a diagram of what the model may look like.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108) 

Year 5: Assessment Task Card

5.5

Unit
5

Mass and Capacity

Resources: two objects, e.g. containers with labels removed and re-labelled A and B, sheets of paper, pen, balance scales

- 1 Provide the student with the two objects, have them heft to identify the heavier one and record.
- 2 Have the student weigh the objects using the balance scales and record their mass. Have them comment on the accuracy of their hefting.
- 3 Have the student write a suggestion about how they could find the capacity of container A.
- 4 To extend the activity: have the student find the total mass of the two objects.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108) 

Year 5: Assessment Task Card

5.5

Unit
5

Mass and Capacity

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review with the student the process of hefting, and have them complete the Tuning In activity in Lesson Plan 3 with their eyes closed.
- Q2** Observe the student completing the process of weighing objects. Check they are reading the scales correctly and waiting for the scales to return to zero before they start to measure. Remind the student of the use of units.
- Q3** Revisit the concept of capacity and how to find it. Revisit activities in the Tuning In and the Whole-Class Introductions from Lesson Plans 1 and 2.

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

- Q4** Having the student complete a number of measures of mass, and investigate the movement between grams and kilograms and the use of decimals and fractions with the expression of mass.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108) 

Year 5: Assessment Task Card

5.6

Unit
6

Estimation

Resources: sheets of paper, pen, three items with prices labelled, e.g. apple 35c, banana 75c and orange 90c

- 1 Provide the student with a number, e.g. 6 238, and have them round the number to and record:
 - a. the nearest 10
 - b. the nearest 100
 - c. the nearest 1 000.
- 2 Provide the student with three items with prices labelled, e.g. apple 35c, banana 75c and orange 90c. Have them select one of the items and determine how many of the items could be purchased for \$5.00.
- 3 Give the student five values, e.g. \$3.25, \$4.15, \$7.95, \$2.48 and \$5.55, and have them estimate the total cost of the items.
- 4 To extend the activity: provide the student with an equation, e.g. $1\,456 + 8\,925$, and have them find the answer and explain how they checked the answer using estimation.

Number and place value

Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099) 

Year 5: Assessment Task Card

5.6

Unit
6

Estimation

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the different processes of rounding. Work with rounding to 10 first and smaller numbers working to larger numbers and then rounding to 100 and 1 000.
- Q2–3** Review how rounding can help in the process of estimating an answer. Work with simple examples, e.g. $11 + 21$, according to the student's ability. Remind the student that multiple items can be added or multiplied together.

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

- Q4** Having the student further articulate, either orally or in writing, the processes of rounding and estimation and how they can be used to check answers of calculations.

Number and place value

Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099) 

Year 5: Assessment Task Card

5.7

Unit
7

Multiplication of Large Numbers A

Resources: sheets of paper, pen, BLM 7 '1 cm Grid Paper', NTO 5.11 'Area Model with Multiplication'

- 1 Provide the student with an equation, e.g. 15×6 , and have them draw an area model to help solve the equation. (Note: BLM 7 '1 cm Grid Paper' could be used.)
- 2 Ask the student to arrange the equation 15×6 vertically, to solve and check their answer.
- 3 Provide the student with an equation, e.g. 26×34 , and ask them to solve using their preferred method.
- 4 To extend the activity: have the student complete another equation, e.g. 123×24 .

Number and place value

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100) 

Year 5: Assessment Task Card

5.7

Unit
7

Multiplication of Large Numbers A

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the process of using the area model to break down the equation into more manageable parts. Use NTO 5.11 'Area Model with Multiplication' to revisit the process.
- Q2** Review how to arrange an equation vertically and then how to complete the vertical multiplication. If required, start with 1-digit \times 2-digit equations.
- Q3** Revisit some of the methods for calculating 2-digit \times 2-digit multiplication equations, e.g. vertical multiplication, the lattice method or partitioning.

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

- Q4** Having the student practise and refine the multiplication process, and then move to problem solving or real-life problems, e.g. finding the volume of objects.

Number and place value

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100) 

Year 5: Assessment Task Card

5.8

Unit
8

Shapes

Resources: sheets of paper, pen, image from the internet or a picture book

- 1 Provide the student with a description of a shape and have them name and draw it, e.g. 'I have 3 sides, I have 3 angles, but they are all different sizes'.
- 2 Ask the student to draw a particular shape, e.g. a pentagon. Have them describe the shape.
- 3 Provide an image from the internet or from a picture book and ask the student to list five regular and three irregular shapes they can see in the image.
- 4 Have the student list three different ways shapes can be recorded or represented, e.g. on the computer, in a photograph, as a drawing.
- 5 To extend the activity: have the student create a more complex irregular shape, e.g. an octagon.

Shape

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMNA111) 

Year 5: Assessment Task Card

5.8

Unit
8

Shapes

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review the different shapes including, names and characteristics. Create a card-matching activity for the student to complete, or alternatively have a word list that the student matches.
- Q3** Revisit the difference between regular and irregular shapes. Provide the student with visual examples.
- Q4** Review the brainstorm in the Tuning In activity in Lesson Plan 2.

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

- Q5** Working with more complex irregular shapes, moving to compound shapes.

Shape

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMNA111) 

Year 5: Assessment Task Card

5.9

Unit
9

3D Shapes

Resources: sheets of paper, playdough, pen, BLM 10 'Cube Template'

- 1 Provide the student with a sheet of paper and playdough to model a specific 3D shape, e.g. a pyramid.
- 2 Have the student sketch their model from different points of view and label aspects, e.g. faces, vertices and edges, etc.
- 3 Ask the student to list or draw each of the 2D shapes that make up the 3D shape.
- 4 Have the student sketch a possible net for their object.
- 5 To extend the activity: have the student create a prism and repeat the questions.

Shape

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMNA111) 

Year 5: Assessment Task Card

5.9

Unit
9

3D Shapes

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review the different objects, names and characteristics. Create a card-matching activity for the student to complete, or alternatively have a word list that they need to match. Review the difference between pyramids and prisms.
- Q3** Revisit the different faces that make up 3D shapes. Start with models, before moving to diagrams and then the student's memory. Have the student list the shape names or circle the relevant shapes.
- Q4** Revisit nets through BLM 10 'Cube Template' or by deconstructing boxes. ***If the student has demonstrated an understanding beyond the skills, consider:***
- Q5** Having the student work with more complex shapes, differentiating between prisms and pyramids.

Shape

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMNA111) 

Year 5: Assessment Task Card

5.10

Unit
10

Multiplication of Large Numbers B

Resources: sheets of paper, pen, counters, chart developed in Whole-Class Introduction, Lesson Plan 3, Student Book p. 42 'Arthur's Multiplication Problems'

- 1 Provide the student with an equation, e.g. 17×8 , and have them solve it using their preferred method.
- 2 Ask the student to identify the method they used (or explain in words what they did).
- 3 Ask the student to write a word problem to accompany the equation.
- 4 To extend the activity: have the student complete another equation, e.g. 237×63 .

Number and place value

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100) 

Year 5: Assessment Task Card

5.10

Unit
10

Multiplication of Large Numbers B

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Provide the student with a particular model to use, e.g. the use of the area model or counters.
- Q2 Revise the different methods of multiplication using the chart developed in Whole-Class Introduction, Lesson Plan 3. Place examples of each of the methods onto the chart.
- Q3 Revisit examples of word problems in the Student Book p. 42 'Arthur's Multiplication Problems' from Lesson Plan 3.

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

- Q4 Having the student practise and refine the multiplication process, and then move to problem solving or real-life problems, e.g. finding the total number of items in boxes or the total length of particular materials.

Number and place value

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100) 

Year 5: Assessment Task Card

5.11

Unit
11

Division with Remainders

Resources: sheets of paper, pen, 2 dice, BLM 5 'Tables Chart 1', BLM 6 'Tables Chart 2'

- 1 Provide the student with 2 dice and have them roll to make two 2-digit numbers, e.g. 42 and 24. Have the student record and then roll one of the dice again and record the number, e.g. 3.
- 2 Have the student divide the second number into the two first numbers, e.g. $42 \div 3$ and $24 \div 3$, and have them solve, expressing the answers with remainders if required.
- 3 Provide the student with a word problem to solve, e.g. 'There are 2 rolls of 25 m of rope. The total length of rope needs to be divided into 7 m lengths. How many 7 m lengths are there and how much rope is left over?'
- 4 To extend the activity: have the student write a word problem for one of their equations from Question 2.

Number and place value

Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101) 

Year 5: Assessment Task Card

5.11

Unit
11

Division with Remainders

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Provide the student with BLM 5 'Tables Chart 1' and BLM 6 'Tables Chart 2' to help with multiplication facts. Revisit with the student the different methods or formats of expressing remainders.
- Q3** Revisit examples of word problems and strategies for how to solve them, e.g. make notes of key numbers and important terms, be clear in what is trying to be solved and what might be a realistic answer. Remind the student to express the answer in context.

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

- Q4** Having the student write and then solve their classmates' word problems based around division.

Number and place value

Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101) 

Year 5: Assessment Task Card

5.12

Unit
12

Grid References

Resources: BLM 7 '1 cm Grid Paper', ruler, pen, sheets of paper

- 1 Provide the student with BLM 7 '1 cm Grid Paper' and a ruler, and have them create a coordinate axis on the paper of A–F on the x-axis, and 1–6 on the y-axis.
- 2 Provide a number of items for the student to add to their grid, e.g. a star at A5, a circle at B3, and so on.
- 3 Have the student add three items wherever they like on their grid system, and then write a description of where they are located, e.g. a square at C6.
- 4 Have the student write a description of the route between two features, e.g. the star and the circle.

Location and transformation

Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMNA113) 

Year 5: Assessment Task Card

5.12

Unit
12

Grid References

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review with the student the structure of the grid referencing system, e.g. the inclusion of an axis, which is x and y (horizontal and vertical), evenly spaced labels, etc. The student may benefit from having a small labelled reminder grid as a reference point.
- Q2–3** Revisit how to add items to the grid, e.g. the first coordinate is the x or horizontal value and the second is the y or vertical value. Use reminders, e.g. 'across the floor and up the stairs'.
- Q4** Review different descriptions of routes, e.g. counting the number of squares up and down, to the left and right, or using compass directions, etc. Ensure the student is locating the correct starting and finishing points. Have the student practise by moving a counter through the described route. Encourage the student to use dot points, rather than long descriptions.

Location and transformation

Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMNA113) 

Year 5: Assessment Task Card

5.13

Unit
13

Addition and Subtraction of Decimals

Resources: sheets of paper, pen

- 1 Provide the student with a sheet of paper and three decimal numbers, according to their ability. Have them record the numbers.
- 2 Have the student find the total of the three numbers.
- 3 Have the student find the difference between the largest and the smallest number.
- 4 Have the student write a word problem to match the addition equation.
- 5 To extend the activity: have the student write a word problem for the difference situation of Q3.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Fractions and decimals

Compare, order and represent decimals (ACMNA105) 

Year 5: Assessment Task Card

5.13

Unit
13

Addition and Subtraction of Decimals

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review with the student strategies for the addition of decimal numbers, e.g. strategies collected during Lesson Plan 1, the formal algorithm. The student could also be supported with colouring grids activities.
- Q3** Revisit with the student strategies for the subtraction of decimal numbers, e.g. strategies collected during Lesson Plan 2, the formal algorithm. The student could be supported with activities with hands-on materials or grid-based activities.
- Q4** Revise contexts that could include decimal numbers, e.g. measurement and money. Have the student work with only addition situations with two numbers.

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

- Q5** More complex situations with more than three numbers to add or including numbers up to 3 decimal places.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Fractions and decimals

Compare, order and represent decimals (ACMNA105) 

Year 5: Assessment Task Card

5.14

Unit
14

Perimeter

Resources: sheets of paper, pen, ruler, BLM 7 '1 cm Grid Paper', NTO 5.23 'Length Conversion'

- 1 Have the student draw a rectangle that has side lengths of 5 cm and 8 cm using a ruler. Have them label the side lengths.
- 2 Have the student find the perimeter of the rectangle.
- 3 Have the student draw a square that has side lengths of 10 cm.
- 4 Have them find the perimeter.
- 5 Provide the student with the value of 20, and have them draw a rectangle that has a perimeter of 20 cm.
- 6 To extend the activity, have the student find the perimeter of a 100 cm × 50 cm rectangle and then convert into metres.

Using units of measurement

Calculate the perimeter and area of rectangles using familiar metric units (ACMMG109) 

Year 5: Assessment Task Card

5.14

Unit
14

Perimeter

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 & 3** Review the use of a ruler and how to create a rectangle/square. Note: BLM 7 '1 cm Grid Paper' could be used to support the student.
- Q2 & 4** Revise the concept of perimeter – that it is the total of the four sides. The student could be scaffolded by labelling the length of each side and then writing down to form an equation.
- Q5** Review the finding of perimeter, by adding each of the side lengths. Then have the student work out what numbers could add to give 20 cm, e.g. $6 + 6 + 4 + 4 = 20$, and then have them add this to a diagram.

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

- Q6** Encouraging the student to look at conversions. Use NTO 5.23 'Length Conversion' to assist. The student could also consider 'real-life' applications, e.g. in building and construction.

Using units of measurement

Calculate the perimeter and area of rectangles using familiar metric units (ACMMG109) 

Year 5: Assessment Task Card

5.15

Unit
15

Mental Strategies

Resources: sheets of paper, pen, NTO 5.13 'Number Line: Patterns', BLM 16 'Divisibility Table'

- 1 Provide the students with the equation $498 + 111 =$ and ask them to:
 - a. solve
 - b. identify the strategy they used.
- 2 Provide the student with the equation $385 - 141$ and ask them to solve using an open number line.
- 3 Provide the student with the problem: 'There are 20 packets of lollies with 16 lollies in each packet. How many lollies are there altogether?' Have the student solve.
- 4 Ask the student to identify which number is divisible by 4: 78 and 809.
- 5 To extend the activity: have the student write a word problem for $50 \times 89 =$.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Year 5: Assessment Task Card

5.15

Unit
15

Mental Strategies

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review different mental strategies for addition, e.g. the use of the class chart or developed strategies posters. Have the student work with 2-digit numbers before moving to 3-digit numbers.
- Q2 Revise the use of open number lines. This could be demonstrated with NTO 5.13 'Number Line: Patterns', using the IWB pen to write numbers onto the number line.
- Q3 Review strategies for working with word problems, e.g. identifying what needs to be solved and underlining key words. Review strategies for multiplying by factors of ten, e.g. double and then add a zero.
- Q4 Review divisibility strategies and provide BLM 16 'Divisibility Table'.

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

- Q5 Having the student develop word-based problems that allow the use of mental strategies they are familiar with.

Number and place value

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) 

Year 5: Assessment Task Card

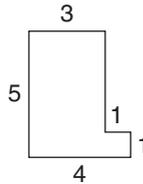
5.16

Unit
16

Area

Resources: sheets of paper, pen, ruler, NTO 5.8 'Grid Paper'

- 1 Provide the student with a sheet of paper and a ruler and ask them to draw a 2-cm square. Then have the student find the perimeter of the square and the area of the square. Repeat with a rectangle 5 cm by 3 cm.
- 2 Ask the student to identify and record a strategy for finding the area of a shape.
- 3 On the board, draw a composite shape, e.g.



Have the student find the area.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)

Calculate the perimeter and area of rectangles using familiar metric units (ACMMG109)

Year 5: Assessment Task Card

5.16

Unit
16

Area

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review how to find the perimeter of squares and rectangles, e.g. by adding all side lengths together. Review how to find the area, e.g. by multiplying side lengths together or by counting squares. Use NTO 5.8 'Grid Paper' in the explanation.
- Q2** Revisit strategies, e.g. counting squares, breaking the shape into smaller more familiar sizes, multiplying side lengths together (the formula).
- Q3** Review how to break composite shapes into familiar shapes to find each of the individual areas and then add together. Begin with simple composite shapes before moving to more complex ones. Remind the student about appropriate units.

Using units of measurement

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)

Calculate the perimeter and area of rectangles using familiar metric units (ACMMG109)

Year 5: Assessment Task Card

5.17

Unit
17

Fractions

Resources: sheet of paper; pen; ruler; hands-on materials, e.g. fraction circles, playdough;
NTO 5.15 'Number Line'

- 1 Provide the student with a sheet of paper and a ruler. Ask them to write down:
 - a. a unit fraction
 - b. a fraction less than this fraction
 - c. a fraction greater than this fraction
 - d. a fraction greater than 1
- 2 Have the student order the four fractions from smallest to largest.
- 3 Have the student draw a number line labelling the fractions.
- 4 Have the student circle one of the fractions on the number line, and write an equivalent fraction.
- 5 To extend the activity: ask the student to add five more fractions to their number line.

Fractions and decimals

Compare and order common unit fractions and locate and represent them on a number line (ACMNA102) 

Year 5: Assessment Task Card

5.17

Unit
17

Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review unit fractions and what they look like using diagrams or hands-on materials, e.g. fraction circles, playdough. Then explore fractions that are larger or smaller than these fractions.
- Q2 Revisit strategies for ordering fractions, e.g. comparing denominators and then numerators. If the student still requires support, look at simpler equivalent fractions. Again, use diagrams or hands-on materials for comparisons.
- Q3 Review number lines and placing the fractions on them. Note: NTO 5.15 'Number Line' could be used.
- Q4 Revisit equivalent fractions using grids as in the Student Book or hands-on materials. Then review writing equivalent fractions.

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

- Q5 Having the student complete counting patterns using fractions and expressing them on number lines.

Fractions and decimals

Compare and order common unit fractions and locate and represent them on a number line (ACMNA102) 

Year 5: Assessment Task Card

5.18

Unit
18

Decimals to 3 Decimal Places

Resources: sheet of paper, pen, BLM 1 'Place-Value Chart'

- 1 Provide the student with a sheet of paper, and ask them to write down a decimal, e.g. 4.763.
- 2 Have the student write the decimal in words.
- 3 Have the student list two decimals larger than 4.763 and two decimals smaller.
- 4 Have the student order the five decimals from smallest to largest.
- 5 To extend the activity: have the student create a scaled number line to represent the decimals.

Fractions and decimals

Recognise that the place value system can be extended beyond hundredths (ACMNA104) 

Compare, order and represent decimals (ACMNA105) 

Year 5: Assessment Task Card

5.18

Unit
18

Decimals to 3 Decimal Places

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review decimal numbers and how to write with a decimal point and places. Use a place-value chart using BLM 1 'Place-Value Chart' to assist the review. Have the student practise listening to and then writing a number of different decimals, beginning with 1, then 2 and finally 3 decimal places.
- Q2** Matching names and number activities could be completed with cards or on the computer to strengthen skills. The student could also be given a word list to aid with the spelling of words.
- Q3–4** Revisit the comparison of decimal numbers, e.g. which is larger/smaller and why. Begin with 2 decimal places and the use of the hundreds square before moving to 3 decimal places.

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

- Q5** Having the student complete counting patterns using decimals and expressing them on number lines.

Fractions and decimals

Recognise that the place value system can be extended beyond hundredths (ACMNA104) 

Compare, order and represent decimals (ACMNA105) 

Year 5: Assessment Task Card

5.19

Unit
19

Chance

Resources: sheets of paper, pen, NTO 5.17 'Spinners', 2 dice, 2 10-sided dice

- 1 Provide the student with a sheet of paper, and use NTO 5.17 'Spinners' to roll a dice. Ask the student to record the number and the chance of rolling it. Encourage the student to express his or her answers as fractions.
- 2 Ask the student to write down what the chance is of rolling:
 - a. an odd number
 - b. 5 or 6
 - c. 0
- 3 Show the student 2 dice on NTO 5.17 'Spinners' and roll the dice. Ask the student to record the combination of the numbers and the chance of rolling those numbers.
- 4 Ask the student to write whether the dice are fair or not and why.
- 5 To extend the activity: have the student list all of the outcomes for 2 10-sided dice.

Chance

List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116) 

Recognise that probabilities range from 0 to 1 (ACMSP117) 

Year 5: Assessment Task Card

5.19

Unit
19

Chance

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the different outcomes of a dice and chance of each outcome (e.g. $\frac{1}{6}$).
- Q2 Using the different outcomes, have the student group them, e.g. $\frac{1}{6}$ for 1, $\frac{1}{6}$ for 3, $\frac{1}{6}$ for 5, etc. Explore with the student how to express that there is no chance of rolling a zero.
- Q3 Revisit the different outcomes of working with two dice. Have the student create an ordered list of outcomes.
- Q4 Review with the student the meaning of a 'fair' item. Ask, 'How is it fair or not?' Review the concept of equal chance.

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

- Q5 Using 10-sided dice to increase the number of outcomes. Look at how an increase in outcomes results in smaller fractions.

Chance

List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116) 

Recognise that probabilities range from 0 to 1 (ACMSP117) 

Year 5: Assessment Task Card

5.20

Unit
20

Collecting Data

Resources: sheets of paper, pen

- 1 Ask the student to list questions they could ask about the amount of energy a family uses in one week.
- 2 Have the student select one of the questions, and describe how they would create a survey about the question, e.g. how they would collect the data, would they use observations or questions, etc.
- 3 Provide the student with the following data and ask them to write three observations about it.

Day	Amount of energy used
Monday	20 kW
Tuesday	25 kW
Wednesday	22 kW
Thursday	18 kW
Friday	24 kW
Saturday	29 kW
Sunday	12 kW

Data representation and interpretation

Pose questions and collect categorical or numerical data by observation or survey (ACMSP118) 

Year 5: Assessment Task Card

5.20

Unit
20

Collecting Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review survey questioning with the student. Brainstorm questions around particular topics and explore if the data collection would be observational or survey questions. Review different methods of data collection with the student.
- Q3** Have the student practise writing observations of data by looking at the most, least and perhaps unexpected results. The student may also look for results with the same values.

Data representation and interpretation

Pose questions and collect categorical or numerical data by observation or survey (ACMSP118) 

Year 5: Assessment Task Card

5.21

Unit
21

Number Patterns

Resources: dice, sheets of paper, pen, calculator, NTO 5.13 'Number Line: Patterns', NTO 5.15 'Number Line', calculators

- 1 Have the student roll the dice and record the number. This is the starting number. Have the student roll the dice again, and the number rolled is the number to add to create a pattern. Have the student record the first six numbers in the pattern.
- 2 Have the student describe their pattern in words.
- 3 Have the student place their number pattern on a number line.
- 4 Provide the student with either a fraction or decimal and a number, e.g. 2.5 and 0.5, and have them record the number pattern, starting at 2.5 and adding 0.5 each time.
- 5 To extend the activity: provide the student with a pattern based on subtraction to continue, e.g. 5, $4\frac{3}{4}$, $4\frac{1}{2}$, $4\frac{1}{4}$, etc.

Patterns and algebra

Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107) **AC**

Year 5: Assessment Task Card

5.21

Unit
21

Number Patterns

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the construction of patterns, e.g. how to add the number each time. Provide a calculator if necessary to support the student.
- Q2 Practise key ideas to include in a written description, e.g. starting number, adding x each time, continuing to include x terms, and so on. These hints could be collected and added to a chart to display in the room.
- Q3 Revisit the placing of numbers on a number line and the construction of a number line itself. In this case, the number line is not open, so requires even divisions. Use NTO 5.13 'Number Line: Patterns' or NTO 5.15 'Number Line' to support the explanation process.
- Q4 Review the process of adding decimals or fractions. A calculator could be used to aid understanding. Relate ideas back to whole number concepts to build understanding.

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

- Q5 Mixing fractions and decimals in number patterns or on the representation of the number lines.

Patterns and algebra

Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107) **AC**

Year 5: Assessment Task Card

5.22

Unit
22

Angles

Resources: sheets of paper, pen, ruler, protractor, set of angle cards made from BLM 24 'Angle Cards', NTO 5.19 'Angles: Measuring'

- 1 On a sheet of paper, have the student draw an acute angle and an obtuse angle and label them.
- 2 Using the protractor, have the student measure the size of the angles to the nearest 5° and label under the angles.
- 3 Ask the student to draw an angle using a ruler and protractor, e.g. 40° , and label the angle.
- 4 To extend the activity: ask the student to draw a regular shape with the correct angles labelled, e.g. a rectangle or an equilateral triangle.

Geometric reasoning

Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112) 

Year 5: Assessment Task Card

5.22

Unit
22

Angles

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the different angle types using the angle cards made from BLM 24 'Angle Cards' by having the student sort and organise the cards.
- Q2** Review how to measure angles using a protractor. This could be aided using NTO 5.19 'Angles: Measuring'. Have the student practise with familiar angles, e.g. 90° , 45° , 60° , etc. before moving to more complex ones.
- Q3** Review how to draw angles to scale using protractors and rulers. Use NTO 5.19 'Angles: Measuring' to support the explanation. Have the student practise with familiar angles, e.g. 90° , 45° , 60° , etc. before moving to more complex ones, e.g. 115° .

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

- Q4** Applying the student's knowledge to application situations, e.g. design a table or chair and label all measurements like lengths and angles on the design.

Geometric reasoning

Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112) 

Year 5: Assessment Task Card

5.23

Unit
23

Addition of Fractions

Resources: sheets of paper; pen; modelling equipment, e.g. Unifix blocks, paper or playdough; NTO 5.20 'Adding Fractions'; NTO 5.15 'Number Line'

- 1 Provide the student with a fraction addition equation that involves fractions of the same denominator, e.g. $\frac{3}{8} + \frac{5}{8}$. Have the student record the equation and find the answer.
- 2 Have the student draw a representation for the equation and the answer.
- 3 Ask the student to draw a number line to represent the equation and the answer.
- 4 Provide the student with one fraction, e.g. $\frac{7}{10}$, and ask them to use this in their own fraction addition equation, either as one of the addends or as the answer.
- 5 To extend the activity: ask the student to write a word problem based on the equation from Q1.

Fractions and decimals

Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103) **AC**

Year 5: Assessment Task Card

5.23

Unit
23

Addition of Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Use modelling equipment, e.g. Unifix blocks, paper or playdough, to support the explanation and solving of the equation. Have the student complete the representation (Q2) before solving the equation.
- Q2 Review how to construct diagrams to represent fractions. Use NTO 5.20 'Adding Fractions' to aid discussion. Have the student practise with a variety of examples.
- Q3 Review how to represent fractions on number lines. Use NTO 5.15 'Number Line' to show examples. Remind the student of strategies, e.g. locate the largest number and then add from there.
- Q4 Review with the student how to write their own equations and questions using fractions. This could be completed with whole numbers first before proceeding to fractions.

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

- Q5 Having the student solve and create more word-based or contextual problems involving the addition of fractions.

Fractions and decimals

Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103) **AC**

Year 5: Assessment Task Card

5.24

Unit
24

Subtraction of Fractions

Resources: BLM 27 'Think Board'; pen; modelling equipment, e.g. Unifix blocks, paper or playdough; NTO 5.21 'Subtracting Fractions', NTO 5.15 'Number Line'

- 1 Provide the student with BLM 27 'Think Board' and a fraction subtraction equation that involves fractions of the same denominator, e.g. $\frac{8}{10} - \frac{3}{10} =$. Have the student record the equation and find the answer in one section.
- 2 Have the student draw a representation for the equation and the answer in the second section of the board.
- 3 Ask the student to draw a number line to represent the equation and the answer in the third section of the board.
- 4 Have the student explain how they could check the answer in the final section of the board.
- 5 To extend the activity: ask the student to write a word problem based on the equation from Q1 on the back of the BLM.

Fractions and decimals

Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103) **AC**

Year 5: Assessment Task Card

5.24

Unit
24

Subtraction of Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the use and purpose of a Think Board. Use modelling equipment, e.g. Unifix blocks, paper or playdough, to aid in the explanation and solving of the equation. Have students complete the representation (Q2) before solving the equation.
- Q2 Review how to construct diagrams to represent fractions. Use NTO 5.21 'Subtracting Fractions' to aid discussion. Have the student practise with a variety of examples.
- Q3 Review how to represent fractions on number lines. Use NTO 5.15 'Number Line' to show examples. Remind the student of strategies, e.g. locating the largest number and then subtracting from that point.
- Q4 Review with the student how to check answers of subtraction equations with whole numbers, and then apply the principles to fractions.

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

- Q5 Having the student solve and create more word-based or contextual problems involving the subtraction of fractions and encouraging the student to express answers in simplest form.

Fractions and decimals

Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103) **AC**

Year 5: Assessment Task Card

5.25

Unit
25

Time

Resources: sheets of paper, pen, NTO 5.22 'Clocks'

- 1 Ask the student to draw an analogue clock face.
- 2 Have the student draw a time on their clock face, e.g. 3.00 in the afternoon.
- 3 Have the student express their time digitally.
- 4 Have the student express their time in 24-hour representation.
- 5 Ask the student to list two places where they may find 24-hour time being used.

Using units of measurement

Compare 12- and 24-hour time systems and convert between them (ACMMG110) 

Year 5: Assessment Task Card

5.25

Unit
25

Time

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 & 3** Review the difference between an analogue clock and a digital clock. Use NTO 5.22 'Clocks' to support the discussion. Review the construction of an analogue clock, e.g. placement of numbers.
- Q2** Review how to draw time on an analogue clock (NTO 5.22 'Clocks' could be used). Review the use of am and pm representation in 12-hour time.
- Q4** Revisit 24-hour time and the representation conventions with numbers up to 10 in the morning and then for the pm times, and how to find that value.
- Q5** Revisit the use of 24-hour time in real-life situations, e.g. travel timetables.

Using units of measurement

Compare 12- and 24-hour time systems and convert between them (ACMMG110) 

Year 5: Assessment Task Card

5.26

Unit
26

Time Problems

Resources: sheet of paper, pen

- 1 Provide the student with a 24-hour time, e.g. 1 645. Ask them to express in am/pm time.
- 2 Have the student write down an activity they could be doing at that time.
- 3 Ask the student to write the time 2 hours later than 1645 in 24-hour time.
- 4 Provide the student with a list of times, e.g. 1125, 1215, 1335, 1505, 1600, and ask them to identify the time that would be the closest to 3 pm.
- 5 To extend the activity: have the student find the difference in time between 1125 and 1600.

Using units of measurement

Compare 12- and 24-hour time systems and convert between them (ACMMG110) 

Year 5: Assessment Task Card

5.26

Unit
26

Time Problems

TARGETED ASSESSMENT

If the student is experiencing difficulty:

Q1, 2 & 4 Review how to convert between 24-hour and 12-hour representation. Revisit when am and pm are applicable.

Q3 Have the student practise adding 1 hour to 12- and 24-hour time and then have them add 2 hours to 12- and 24-hour representations.

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

Q5 Providing the student with more experience in finding the difference between two times.

Using units of measurement

Compare 12- and 24-hour time systems and convert between them (ACMMG110) 

Year 5: Assessment Task Card

5.27

Unit
27

Fractions and Decimals

Resources: sheets of paper, pen, calculator, NTO 5.13 'Number Line: Patterns'

- 1 Ask the student to write a pattern of five terms that involves the addition of decimals.
- 2 Have the student write a description of the pattern.
- 3 Have the student draw and represent their pattern on a number line.
- 4 Ask the student to write a pattern that involves the subtraction of fractions of five terms.
- 5 Have the student write a description of the pattern.
- 6 To extend the activity: provide the student with a set of numbers that is not a pattern, e.g. 4.2, 7.08, 8.1, 15.33, 17.5, and ask them to identify whether there is a pattern or not and to explain why or why not.

Patterns and algebra

Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107) **AC**

Year 5: Assessment Task Card

5.27

Unit
27

Fractions and Decimals

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review patterns involving decimal numbers. Provide the student with a calculator until they grasp the concept.
- Q2 & 5** Have the student practise writing generalisations about patterns, e.g. adding 0.1 or adding 0.6 or subtracting $\frac{1}{2}$.
- Q3** Review how to construct a number line. Have the student create the divisions and add their numbers. Use NTO 5.13 'Number Line: Patterns' to aid the explanation.
- Q4** Review patterns with fractions. Revisit with the student the processes of adding fractions, i.e. having common denominators, and how to apply to pattern situations. Note: Calculator use with fractions, can make the process more complicated, unless the calculator has a fraction button/representation.

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

- Q6** Providing the student with more complex patterns and working more with whole numbers and decimals and fractions.

Patterns and algebra

Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107) **AC**

Year 5: Assessment Task Card

5.28

Unit
28

Number Sentences

Resources: sheets of paper, pen, BLM 5 'Tables Chart 1', BLM 6 'Tables Chart 2', BLM 7 '1 cm Grid Paper'

- 1 Ask the student to write a multiplication equation with a missing number.
- 2 Have the student show this as an array.
- 3 Ask the student to write a division equation with a missing number.
- 4 Ask the student to write a number sentence and then find the value of the number if they multiply the number by 6 to get 42.
- 5 To extend the activity: have the student write their own number word problem (as in Q4).

Patterns and algebra

Use equivalent number sentences involving multiplication and division to find unknown quantities (ACMNA121) 

Year 5: Assessment Task Card

5.28

Unit
28

Number Sentences

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review multiplication equations. Provide BLM 5 'Tables Chart 1' and BLM 6 'Tables Chart 2' to support the student's understanding of multiplication facts. Use simple activities, e.g. covering numbers in equations and having the student work out the covered number, to lead to equations with missing values.
- Q2** Review drawing arrays. Provide BLM 7 '1 cm Grid Paper' to support the drawing of them. Look at the different representation of the arrays (e.g. rotational properties).
- Q3** Review the link between multiplication and division, and use activities like verbalising the equation; e.g. '16 divided by what equals 4?'
- Q4** Review strategies for writing number sentences by identifying key terms. Have the student underline or highlight the terms to help write the number sentence. Cards can be used to model each part of the equation and then the student re-orders to construct the correct number sentence.

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

- Q5** Having the student work with combinations of operations, creating their own number word problems and number sentences.

Patterns and algebra

Use equivalent number sentences involving multiplication and division to find unknown quantities (ACMNA121) 

Year 5: Assessment Task Card

5.29

Unit
29

Data Display

Resources: sheets of paper, pen, ruler

- 1 Provide the student with a list of data on the board, e.g.
Green 42 Red 29 Orange 18 White 36 Blue 32
- 2 Ask the student to arrange the data into a table.
- 3 Have the student create an appropriate graph of the data.
- 4 Ask the student to write why they chose to draw that particular graph.
- 5 Have them write three statements about the data.

Data representation and interpretation

Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119) 

Year 5: Assessment Task Card

5.29

Unit
29

Data Display

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review what a table is and how it can be used to organise data. Revisit the structure and how to create one.
- Q3–4** Review the different types of graphs, e.g. column and line graphs, and what they look like. Revisit when each of these graphs is used (discrete and continuous situations). Matching card activities could be used with examples.
- Q5** Have the student practise identifying the main features of data-sets, e.g. the most common, least popular, data with the same value.

Data representation and interpretation

Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119) 

Year 5: Assessment Task Card

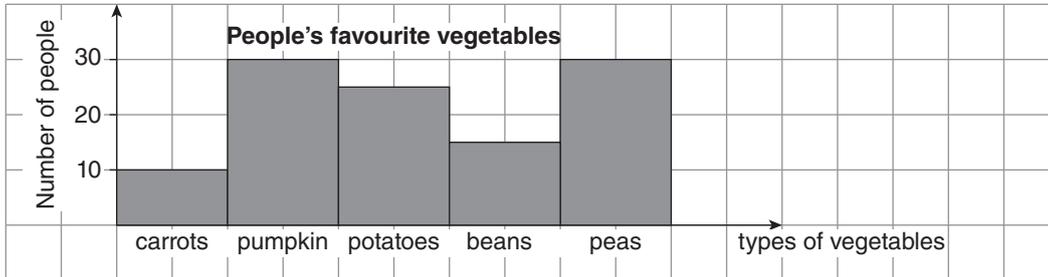
5.30

Unit
30

Interpreting Data

Resources: sheets of paper, ruler, pen

- 1 Provide the student with the following graph:



- 2 Ask the student to write three statements about the graph.
- 3 Have the student create a table of data based on the graph.
- 4 To extend the activity: have the student consider what would happen if the labels on the graph were changed to 'People's least favourite vegetables'. Ask, 'Would your answers to Questions 2 and 3 be correct?'

Data representation and interpretation

Describe and interpret different data sets in context (ACMSP120)

Year 5: Assessment Task Card

5.30

Unit
30

Interpreting Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2 Have the student practise identifying the main features of data-sets, e.g. the most common, least popular, data with the same value.
- Q3 Review what a table is and how it can be used to organise data. Revisit the structure and how to create one. Have the student identify the relevant data to include in the table.

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

- Q4 Having the student consider how their responses and ideas about a data-set may change if the context has changed.

Data representation and interpretation

Describe and interpret different data sets in context (ACMSP120)

Year 5: Assessment Task Card

5.31

Unit
31

Financial Plans

Resources: a sheet of paper, pen, calculator, a selection of different receipts including supermarket receipts

- 1 Provide the student with a sheet of paper, and ask them to design a receipt with at least three items on it. Ask them to include as many features that they can, including the total of the receipt and change from a cash payment.
- 2 If they didn't do so in Q1, have the student find and identify the GST component of their receipt.
- 3 To extend the activity: ask the student to find the GST component on a more expensive item, e.g. a television costing \$2500.

Money and financial mathematics

Create simple financial plans (ACMNA106) 

Year 5: Assessment Task Card

5.31

Unit
31

Financial Plans

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the main features of a receipt, e.g. list of items, list of the costs, totals, change, GST component, etc. This could be completed by looking at examples of receipts from a variety of locations.
- Q2** Review how to find GST on an item. Review how to complete the calculation using the calculator.

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

- Q3** Providing more complex receipts with more items included, in which some items have GST and some do not, e.g. a supermarket receipt.

Money and financial mathematics

Create simple financial plans (ACMNA106) 

Year 5: Assessment Task Card

5.32

Unit
32

Transformations

Resources: a sheet of paper, pen, patterns from books or the internet, a variety of Learning Objects, e.g. LO: L10736 'Shape sorter: wand tool', LO: L7801 'Finding symmetry: three lines: city', LO: L3505 'Turtle Geometry', a variety of Scootle resources, e.g. M010532 'BBC Bitesize: symmetry', M012248 'Flip, slide and turn'

- 1 Provide the student with a sheet of paper, and ask them to create this table:

Translation (slide)	Reflection (flip)	Rotation (turn)

- 2 In the table, ask the student to explain or define each of the terms.
- 3 In the table, have the student draw two examples for each term.
- 4 To extend the activity: provide the student with a pattern (from a book or the internet) and have them identify the different elements of the pattern of translation, reflection or rotation and the lines of symmetry.

Location and transformation

Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114) 

Year 5: Assessment Task Card

5.32

Unit
32

Transformations

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2 Review the definitions of each of the terms. Use some of the Learning Objects and resources from Scootle to reinforce ideas.
- Q3 Have the student move hands-on materials such as shapes, then trace them to produce examples of each of flip, slide and turn. Also have the student refer to posters and drawings they made during Lesson Plans 2 and 3.

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

- Q4 Providing examples of use of translation, reflection or rotation and symmetry in real-world applications, e.g. tiling, artwork and clothing.

Location and transformation

Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114) 

Year 5: Assessment Task Card

5.33

Unit
33

Use of Transformations

Resources: BLM 7 '1 cm Grid Paper'; pen; hands-on materials, e.g. shapes; NTO 5.8 'Grid Paper'

- 1 Provide the student with BLM 7 '1 cm Grid Paper' and have them draw a right-angled triangle with vertical and horizontal sides of 4 cm in the middle of the page.
- 2 Have the student reflect, rotate and translate the triangle and label each transformation. (This could be varied by having the student translate in a particular direction by a number of units.)
- 3 Have the student check to see if the triangle will tessellate and write a comment.
- 4 Have the student enlarge the triangle by multiplying each vertical and horizontal side length by 2.
- 5 To extend this activity, have the student create a tessellation with the triangle and another shape.

Location and transformation

Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114) **AC**

Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115) **AC**

Year 5: Assessment Task Card

5.33

Unit
33

Use of Transformations

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Have the student move hands-on materials such as shapes, then trace them to produce examples of each of flip, slide and turn. Review each of the terms.
- Q3** Revisit tessellations and the definition. Look at examples and the shapes that make up the tessellations. Revisit some of the activities from Lesson Plan 1.
- Q4** Review the process of enlarging using grid paper. This could be modelled on the board using NTO 5.8 'Grid Paper'.

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

- Q3** Having the student identify and create more complex tessellating patterns using multiple regular and irregular shapes.

Location and transformation

Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114) **AC**

Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115) **AC**