

Year 3: Assessment Task Card

3.1

Unit
1

Numbers, Numbers, Numbers

Resources: A4 paper, NTO 3.3 'Six-Sided Dice'

- 1 Give each student a sheet of paper. Present NTO 3.3 'Six-Sided Dice' with four digits generated on four dice. Have students arrange the digits to form an even number. Have students record the number and read it aloud.
- 2 Have students use the four digits to form an odd number, record the number and read it aloud.
- 3 Have students form two other numbers using the four digits and record with the two previous numbers.
- 4 Have students write all of the numbers in order from smallest to largest.
- 5 Have students write the numbers in word form.

Number and place value

Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) 
Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.1

Unit
1

Numbers, Numbers, Numbers

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Have the student use ten frames and counters to explore odd and even numbers to 10. Each time they determine that a number is odd or even, have them add a ten frame, then another. Discuss with the student that, it does not matter how many tens or hundreds are added to the number, it will remain an odd or even number depending on what is in the ones place.
- Q3–4** Begin by having the student locate 2-digit numbers on a number line and use it to compare to other numbers. When the student is able to identify larger or smaller 2-digit numbers by their position on a number line, extend to 3-digit numbers.
- Q5** Have the student write the words for the numbers 1 to 9 and then for the numbers 20, 30 up to 90. Have them practise writing in words the numbers 20 to 99. Next have the student practise the numbers 11 to 19. When the student is proficient, have them learn the words for 100 and 1 000 and write the words for 3- and 4-digit numbers.

Number and place value

Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) 
Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.2

Unit
2

Numbers to 10 000

Resources: number cards, MAB, A3 paper

- 1 Give students the following number cards: 2371, 3612, 6152, 3214, 2534, 6514. Ask them to name each number.
- 2 Have students select the largest number and model it with MAB.
- 3 Have students explain how they know it is the largest number.
- 4 Have students order the numbers from smallest to largest.
- 5 Ask students to draw a line on a landscape sheet of A3 paper, stick the smallest number at the left-hand end and the largest at the right-hand end. Students stick the remaining numbers on the number line, varying the distance between each to show how much bigger or smaller the numbers are.

Number and place value

Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.2

Unit
2

Numbers to 10 000

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Select one number, cover the thousands digit and have the student name the remaining 3-digit number. Review what a 4-digit number is and reveal the hidden digit. Have the student say this number. Repeat for other numbers.
- Q2** Revisit the 'Introducing... Thousands' activity from the Whole-Class Introduction in Lesson Plan 1. Allow the student to model 3-digit numbers with MAB before moving on to 4-digit numbers.
- Q3–4** Select two 3-digit numbers and ask the student to model each number with MAB. Discuss with the student that when deciding whether a number is bigger or smaller than another number, we look at the biggest part of the number first. Compare the two models and decide which is biggest. Extend to comparing two 4-digit numbers and gradually to a group of 4-digit numbers.
- Q5** Revisit the 'Pegs for Scale!' activity from the Whole-Class Introduction in Lesson Plan 3. Use NTO 3.6 'Number Line' to review location of numbers, comparing larger and smaller. It may be useful to begin with 3-digit numbers and build to 4-digit numbers.

Number and place value

Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.3

Unit
3

More About Numbers to 10 000

Resources: A4 paper, spike abacus

- 1 Give each student a sheet of paper. Have them create six numbers using the digits 2, 4, 6, 8. Ask students to order their numbers from smallest to largest.
- 2 Have students select the smallest number and model it on a spike abacus.
- 3 Ask students to discuss the value of each digit in the smallest number.
- 4 Have students add 10, 100 and 1 000 to the smallest number.
- 5 Have students subtract 10, 100 and 1 000 from the smallest number.
- 6 Ask, 'What amount would you need to subtract from your smallest number to have a zero in the hundreds column?'
- 7 Have students explain the importance of zero in a number.

Number and place value

Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.3

Unit
3

More About Numbers to 10 000

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Revise what a 4-digit number is.
- Q2 Allow the student to model the number using MAB as well as the spike abacus.
- Q3 Simplify the task by modelling 3-digit numbers using MAB and the place-value chart.
- Q4–5 Revisit the 'Adding and Subtracting 10, 100 and 1 000' activity from the Whole-Class Introduction in Lesson Plan 1. Use MAB and the place-value chart to consolidate understanding. It may be useful to begin with 3-digit numbers and build to 4-digit numbers.
- Q6–7 Have the student model the number with MAB on a place-value chart. Have the student remove all of the hundreds flats from the chart to get a value of zero in the hundreds. Discuss the importance of writing '0' in this space.

Number and place value

Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 

Year 3: Assessment Task Card

3.4

Unit
4

Length

Resources: A4 paper, 30 cm ruler, metre ruler

- 1 Give each student a sheet of paper. Have students find three items in the classroom that are about the same length as their foot.
- 2 Have students estimate the length of their items in centimetres.
- 3 Have students use a ruler to measure and record the actual length of each object.
- 4 Have students find three items in the classroom that are about 1 m in length.
- 5 Have students use a metre ruler to measure the items and say whether they are shorter or longer than a metre.
- 6 Have students write all six objects in order from longest to shortest.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.4

Unit
4

Length

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Have the student look at the length of their foot and compare it to different items in the room. If they made a foot cut-out in the Lesson Plan 1 Teaching Group, they can use this to help.
- Q2 Ask the student look at the size of a centimetre and think about how long a 30 cm ruler is. Have the student use this knowledge to predict the length of the selected items.
- Q3 Revisit activities from Lesson Plan 2 where centimetres are used to measure items accurately.
- Q4 Give the students a metre ruler (or 1 m piece of string), which they can use to find objects of about 1 m.
- Q5 Have the student hold a metre ruler against the object and decide whether the object is shorter or longer than 1 m.
- Q6 Remind the student of the meanings of the words 'shortest' and 'longest'. Revise ordering activities from Unit 2 Numbers to 10 000, e.g. Lesson Plan 2, Independent Tasks, Task 2.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.5

Unit
5

Mental Strategies for Addition

Resources: A4 paper, NTO 3.10 'Card Flip', dice, BLM 15 'Number Cards 1–20'

- 1 Give each student a sheet of paper. Present NTO 3.10 'Card Flip', selecting 1–100 cards. Have students add 10, 60 and 100 to each number shown. Ask them to explain the strategy they used.
- 2 Present NTO 3.10 'Card Flip', selecting 1–100 cards. As the numbers are shown, have students roll a dice and record an addition equation, e.g. $45 + 6$. Students solve the equations and explain the strategy they used.
- 3 Have students select a card made from BLM 15 'Number Cards 1–20'. Ask them to write a doubles equation and a near doubles equation that uses their number.
- 4 Have students record a list of the mental strategies they can use when solving addition equations.

Number and place value

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) 

Year 3: Assessment Task Card

3.5

Unit
5

Mental Strategies for Addition

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Provide opportunities for the student to explore adding multiples of 10, e.g. $40 + 20$. Support the student in modelling the equations using MAB or NTO 3.7 'Modelling with MAB'.
- Q2 Revise the numbers that add together to make 10. Show the student numbers using NTO 3.10 'Card Flip' (selecting 1–100 cards) and have the student identify how many more is needed to build to the next ten from that number. When the student is proficient, encourage them to apply this strategy when solving equations such as $25 + 9$.
- Q3 Revise what doubles equations are. Have the student use counters to model how the numbers are equal. Revise what near doubles equations are and have the student use counters to model how one number is bigger. Discuss how being familiar with doubles can help you solve near doubles.
- Q4 Discuss what strategies are and how they help us with solving addition problems. Encourage the student to 'talk aloud' as they solve problems to identify what they are thinking and doing as they solve problems.

Number and place value

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) 

Year 3: Assessment Task Card

3.6

Unit
6

Addition

Resources: A4 paper

- 1 Give each student a sheet of paper. Present the equations: $46 + 28$ and $53 + 39$. Have students write the equations vertically and record the answers.
- 2 Have students estimate the answers to the equations by rounding, then check the reasonableness of their answers.
- 3 Have students generate their own 2-digit with 2-digit addition equations and find the answers.
- 4 Present the problem: 26 students in 3C and 28 students in 3W were going on an excursion to the zoo. How many students were going? Have the students solve the problem.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.6

Unit
6

Addition

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Have the student solve 2-digit with 2-digit addition problems by modelling the numbers with MAB using NTO 3.7 'Modelling with MAB'. Model how the ones are added together and the tens are added together. Review how the ones are regrouped to form a ten when the total of ones is greater than 9.
- Q2** Review the rules about rounding numbers to the nearest ten. Use NTO 3.10 'Card Flip', selecting 1–100 cards, to present the student with a 2-digit number. Have the student round the number up or down. Also revise adding multiples of 10, using MAB to model if necessary. Present students with two 2-digit numbers and have them round both and then add the multiples of 10 together.
- Q3** Give the student a set of cards made from BLM 5 'Digit Cards'. Have them rearrange the cards to form familiar addition equations, i.e. have cards representing the addends and cards representing the answer. Begin with 1-digit addition equations and progress to 2-digit equations. Discuss with the student how they need to consider the ones being added together, the tens being added together and regrouping that may occur.
- Q4** Discuss what the problem is asking. Have the student identify the numbers (the addends) in the problem. Talk about specific strategies the student could use to solve the problem.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.7

Unit
7

Location

Resources: maps of the school, BLM 10 'Grid Paper'

- 1 Give each student a map of the school. Have them label the different buildings and areas on the map.
- 2 Have students choose two locations on the map and mark them with a cross, e.g. their classroom and the art room. Have them draw the pathway they would take to move between the two locations.
- 3 Have students write the directions they would give to someone who did not know how to get from their classroom to the basketball courts.
- 4 Give students BLM 10 'Grid Paper'. Have them draw a map of a familiar place, e.g. their bedroom, house or classroom. Have them label the different locations and items on their map.
- 5 Have students write coordinates for different locations and items on their map.

Location and transformation

Create and interpret simple grid maps to show position and pathways (ACMMG065) 

Year 3: Assessment Task Card

3.7

Unit
7

Location

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Revise how to read and interpret maps. Discuss how a map is a bird's-eye view of a location. Discuss how we can use maps to help locate places and to help us make a pathway between two places. Have the student practise locating specific locations on a map. Give them opportunities to create and follow pathways between two locations on a map.
- Q3** Review specific language that can be used for giving directions. Ensure the student understands the meaning of words such as 'forwards', 'backwards', 'left' and 'right'. Give the student simple directions to follow around the room. Then have the student give directions for others to follow.
- Q4** Revise specific strategies for drawing maps. Discuss how maps need to be drawn from a bird's-eye view. Talk about how they need to consider the size, shape and position of items that are on a map.
- Q5** Review grid maps and coordinates. Revise how coordinates are written and used. Have the student find specific locations and coordinates on grid maps. Support the student in using coordinates to describe specific locations and pathways on their map.

Location and transformation

Create and interpret simple grid maps to show position and pathways (ACMMG065) 

Year 3: Assessment Task Card

3.8

Unit
8

Place Value

Resources: A3 paper, MAB

- 1 Give each student a sheet of A3 paper. Have them fold it into quarters and open it again to form four sections.
- 2 Have students write a 4-digit number between 2 000 and 3 000 in the centre of the page (where the four corners meet).
- 3 Model this number using MAB.
- 4 In one section, students write their 4-digit number in words.
- 5 In another section, students expand and rename their number using no hundreds.
- 6 In another section, students partition their number.
- 7 In the last section, students add 300 to their number.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053) 

Year 3: Assessment Task Card

3.8

Unit
8

Place Value

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2–3** Review what a 4-digit number is. Revisit the place-value chart and discuss the name of each column. Have the student say the number aloud before writing it.
- Q4** Remind the student of the value of each MAB. It may be useful to set them out on a place-value mat.
- Q5** Revisit the 'Oh No! No Hundreds!' activity from the Whole-Class Introduction in Lesson Plan 1. Use BLM 23 '4-Digit Number Expanders' to assist students.
- Q6** Revisit the 'Partition' activity from the Whole-Class Introduction in Lesson Plan 2. Model numbers with MAB and link this to partitioning.
- Q7** Simplify the task by beginning with a 3-digit number and adding 100, then 200 and then 300.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053) 

Year 3: Assessment Task Card

3.9

Unit
9

More About Place Value

Resources: A4 paper, MAB, dice

- 1 Give each student a sheet of paper. Have them write their code for ones, tens, hundreds and thousands across the top of the page and draw a box around it.
- 2 Have students write a 4-digit number between 3 000 and 4 000 below their code.
- 3 Have students write the number in code and model it with MAB.
- 4 Have students roll a dice and add that number of hundreds to their number. Model with MAB and record the number.
- 5 Have students roll the dice and subtract that number of tens from their number from Q4. Model with MAB and record the number.
- 6 Have students decide whether their number from Q2 or Q5 is closer to 3 500.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053) 

Year 3: Assessment Task Card

3.9

Unit
9

More About Place Value

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Revisit the 'A Class Code' activity from the Whole-Class Introduction in Lesson Plan 1.
- Q2 Review what a 4-digit number is. Use the place-value mat and MAB if necessary.
- Q3 Remind the student of the value of each symbol in their code. It may be useful to set out the MAB on a place-value mat.
- Q4–5 Encourage the student to model their number before answering and manually add or subtract the amount on the dice. If trading is necessary, remind students that 10 tens make 1 hundred and so on.
- Q6 Discuss whether numbers are bigger or smaller than 3 500. Use MAB to model both and show what is needed to bring each to 3 500. Revise the domino target activities from Lesson Plan 3.

Number and place value

Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053) 

Year 3: Assessment Task Card

3.10

Unit
10

Mass

Resources: A4 paper, a collection of classroom items, beam balances, kitchen scales

- 1 Give each student a sheet of paper and a collection of classroom items. Ask them to predict the order of items from lightest to heaviest.
- 2 Have students select measuring devices to find the mass of each item and record their findings.
- 3 Have students order the items from lightest to heaviest according to their actual weight.
- 4 Have students compare their predictions to the actual order and explain any differences.
- 5 Have students find and list three classroom items that are lighter than their lightest item.
- 6 Have students find and list three classroom items that are heavier than their heaviest item.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.10

Unit
10

Mass

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Have the student look at and feel the items to decide the order from lightest to heaviest, comparing two items at a time.
- Q2** Remind the student of the class activities for using both the beam balance and scales and what they were used for – it may be easier to weigh heavier items on the scales.
- Q3** Have the student look at the value of their numbers to order them. You may use a place-value mat to write the numbers and/or MAB to model the numbers.
- Q4** Have the student look for any differences and apply reasoning as to why their results are different.
- Q5-6** Remind the student of the meaning of 'lighter' and 'heavier'. Have them use informal methods of comparison and/or place two items on a beam balance to check.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.11

Unit
11

Our Community – Data

Resources: A4 paper, graph paper

- 1 Give each student a sheet of paper. Have students think of four different research questions that they could ask their friends.
- 2 Ask students to select one question to ask their friends and develop at least five response categories.
- 3 Have students create a data collection table, then collect responses from ten friends.
- 4 Once students have collected their data, have them make a graph of their results on graph paper.
- 5 Have students write three facts that are shown by their graph.

Data representation and interpretation

Identify questions or issues for categorical variables. Identify data sources and plan methods of data collecting and recording (ACMSP068) **AC**

Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of technologies (ACMSP069) **AC**

Interpret and compare data displays (ACMSP070) **AC**

Year 3: Assessment Task Card

3.11

Unit
11

Our Community – Data

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Discuss with the student the types of questions that make good research questions for graphing, i.e. those that can be divided into five or six response categories. If needed, brainstorm a small list of possible questions on the board, starting with 'What is your favourite [colour, animal, milkshake flavour etc.]?' Have students select one to work with.
- Q2 Have the student think of the most common responses to their question, and list five or six. Remind the student that the categories cannot overlap and if there are a few main categories but lots of other options, they may use an 'other' category.
- Q3 Give the student BLM 29 'Data Collection Table' if they are having trouble developing their own.
- Q4 Give the student BLM 30 'Graph It!' to help them complete their graph.
- Q5 Revise the work done in the interpreting data activities in Lesson Plan 3, reminding the student that their findings need to be facts that are shown in the graph. Have the student explain what the graph is showing to ensure they have a clear understanding. Encourage comparison between columns using 'more' or 'less' statements.

Data representation and interpretation

Identify questions or issues for categorical variables. Identify data sources and plan methods of data collecting and recording (ACMSP068) **AC**

Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of technologies (ACMSP069) **AC**

Interpret and compare data displays (ACMSP070) **AC**

Year 3: Assessment Task Card

3.12

Unit
12

Mental Strategies for Subtraction

Resources: A4 paper, NTO 3.10 'Card Flip'

- 1 Give each student a sheet of paper. Have students solve the following subtraction equations:
14 – 5 17 – 8 11 – 4 24 – 6
- 2 Have students explain the strategy they used to solve the subtraction equations.
- 3 Present the equation: $15 - 3 = 12$. Have students solve the following problems and explain the strategy they used.
25 – 3 35 – 3 45 – 3 55 – 3
- 4 Present the equation: $12 - 5 = 7$. Have students write other problems this equation could help them solve.
- 5 Present NTO 3.10 'Card Flip', selecting 1–100 cards. Have students subtract 10, 30 or 50 from the number shown. Ask them to explain the strategy they used.

Number and place value

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055)



Year 3: Assessment Task Card

3.12

Unit
12

Mental Strategies for Subtraction

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Have the student revise strategies for solving subtraction problems, e.g. taking away, counting back, counting on, finding the difference. Provide opportunities for the student to solve subtraction problems using the strategies.
- Q3–4** Have the student revise serial subtraction. Present the equations: $17 - 5 = 12$, $27 - 5 = 22$. Have the student discuss what they notice. Present the equations: $37 - 5$, $47 - 5$, $57 - 5$. Discuss strategies for solving these equations. Use number lines and a 100 chart for students to explore other serial subtraction patterns.
- Q5** Have the student subtract multiples of 10, e.g. $70 - 40$. Encourage the student to model the total number with MAB and then take away the appropriate amount. When the student is proficient, move on to equations such as $76 - 40$. Continue to have the student model the equation with MAB. Emphasise that when tens are taken away, the ones remain the same and the tens decrease.

Number and place value

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055)



Year 3: Assessment Task Card

3.13

Unit
13

Subtraction

Resources: A4 paper

- 1 Give each student a sheet of paper. Present the equations: $59 - 23$, $62 - 38$. Have students write the equations vertically and record the answers.
- 2 Have students estimate the answers to the equations by rounding to the nearest ten. Have them check the reasonableness of their answers to the equations.
- 3 Have students generate their own 2-digit subtraction equations and find the answers. Ask, 'Can you make a subtraction problem that involves renaming?'
- 4 Present the problem: 'There were 45 students playing on the playground. 16 ran off to play on the oval. How many students were left on the playground?' Have students solve the problem.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.13

Unit
13

Subtraction

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Have the student solve 2-digit subtraction problems by modelling the numbers with MAB using NTO 3.7 'Modelling with MAB'. Model how we subtract the ones and then subtract the tens. Review how a ten can be renamed for 10 ones if there are not enough ones.
- Q2 Review the rules about rounding numbers to the nearest ten. Use NTO 3.10 'Card Flip' (select 1–100 cards) to present the student with a 2-digit number. Have the student round the number up or down. Also revise subtracting multiples of 10, using MAB to model if necessary. Present the student with two 2-digit numbers and have them form a subtraction problem using these numbers. Have the student estimate the answer by rounding both of the numbers to the nearest ten and then subtracting them.
- Q3 Give the student a set of cards made from BLM 5 'Digit Cards'. Have them rearrange cards to form familiar subtraction equations. Begin by forming 1-digit subtraction equations and progress to forming 2-digit equations. Remind the student that they need to consider how the ones are subtracted, the tens are subtracted and also any renaming that may need to occur.
- Q4 Have the student discuss what the problem is asking. Have the student identify the numbers in the problem and discuss what the numbers mean in relation to the problem. Talk about specific strategies the student could use to solve the problem.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.14

Unit
14

Connections Between Addition and Subtraction

Resources: A4 paper

- 1 Give each student a sheet of paper. Present students with the numbers 8, 6 and 14. Have them record the addition and subtraction problems within this fact family.
- 2 Present students with the following addition and subtraction problems. Have them solve the problems and then record a related problem that proves their answer is correct.
 $26 + 35$ $73 - 46$ $39 + 27$
- 3 Have students solve equations with missing numbers:
 $25 + \underline{\quad} = 37 - 4$ $46 - 13 = 24 + \underline{\quad}$ $9 + 3 + 7 = 25 - \underline{\quad}$
- 4 Give students an equation such as $45 + 13 = 58$. Ask them to list other equations this might help them solve.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) 

Year 3: Assessment Task Card

3.14

Unit
14

Connections Between Addition and Subtraction

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Have the student model the number 8 with red counters and 6 with blue counters. Establish that when these numbers are moved together there is a total of 14 counters. Take away six or eight of the counters and have the student predict how many are left. Discuss how the student knew what the answer would be. Record the addition and subtraction problems.
- Q2 Have the student solve the addition problem $15 + 3$, then have them solve $18 - 3$. Discuss what the student has noticed with these two problems. Discuss how these problems are related because they involve the same numbers.
- Q3 Revise what balanced equations are. Draw an equals symbol in the middle of the board and have the student record equations on each side of the symbol that equal the same amount. Discuss strategies for working out the missing number, e.g. solving one side of the equation and using this answer to help solve the other side.
- Q4 Discuss how addition and subtraction problems are connected. Have the student rearrange the numbers in the problems to make other addition and subtraction problems. Use NTO 3.7 'Modelling with MAB' to model the problems and show the connection between these numbers.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) 

Year 3: Assessment Task Card

3.15

Unit
15

Solving Addition and Subtraction Problems

Resources: A4 paper

- 1 Give each student a sheet of paper. Have students solve the following addition and subtraction problems.

$$\begin{array}{r} 425 + 627 \\ 549 \\ 783 - 249 \\ + 375 \\ \hline 634 \\ - 255 \\ 531 \\ - 174 \\ 328 \\ + 539 \end{array}$$

- 2 Present students with the following addition and subtraction problems. Have them write a worded problem to represent each.

$$236 + 135 \quad 743 - 426$$

- 3 Ask students to select two of the following numbers: 785, 846, 254, 127, 436. Students choose to add or subtract the two numbers, with the aim of getting as close as they can to the target number: 653.

- 4 Ask, 'How do you know that the two numbers you have chosen get you closest to the target number?'

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.15

Unit
15

Solving Addition and Subtraction Problems

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Have the student solve addition and subtraction problems with 2-digit numbers before moving on to problems involving 3-digit numbers. Have the student use MAB to model the equations. Revise how to rename or regroup hundreds, tens and ones in addition and subtraction problems.
- Q2** Have the student use NTO 3.7 'Modelling with MAB' to model addition and subtraction problems. Discuss what the student notices about the problems. Identify and discuss addition and subtraction problems in real-life situations. Have the student connect given problems to real-life situations.
- Q3-4** Change the numbers the student can choose from to 2-digit numbers and set a 2-digit target number. Revise the difference between addition and subtraction problems. Discuss how the student could reach the target by adding two smaller numbers together or subtracting from a larger number.

Number and place value

Recognise and explain the connection between addition and subtraction (ACMNA054) 

Year 3: Assessment Task Card

3.16

Unit
16

Time

Resources: six clock faces from BLM 45 'Blank Clock Faces', A4 paper, glue

- 1 Give each student BLM 45 'Blank Clock Faces' and a sheet of paper. Have them show the following times on six of their clock faces:
 - the time they have lunch
 - the time they get up in the morning
 - the time they get home from school
 - the time they eat breakfast
 - the time they go to bed
 - the time their favourite TV show starts.
- 2 Have students cut out and order the six clock faces from earliest to latest and glue them to their sheet of paper.
- 3 Have students write the digital time underneath each of the clock faces.
- 4 Have students write three things they have to remember when reading an analogue clock.

Using units of measurement

Tell time to the minute and investigate the relationship between units of time (ACMMG062) 

Year 3: Assessment Task Card

3.16

Unit
16

Time

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Revise how to show time on an analogue clock and how to use the hour and minute hands. Have the student think about one hand at a time. Revise the strategy of counting by 5s to find minutes.
- Q2 Have the student think logically about which activity would come first in their day, and use this practical knowledge to order their clocks.
- Q3 Remind the student of the format used in digital time. Show examples of digital times on NTO 3.18 'Clocks' or on digital devices in the classroom.
- Q4 Encourage the student to think about the two hands on the clock, the numbers 1–12 and what they mean, how many minutes there are in one hour, and so on.

Using units of measurement

Tell time to the minute and investigate the relationship between units of time (ACMMG062) 

Year 3: Assessment Task Card

3.17

Unit
17

Angles

Resources: A4 paper, clock with movable hands

- 1 Give each student a sheet of paper and have them draw the following lines:
 - vertical
 - curved
 - horizontal
 - diagonal.
- 2 Have students give an example of where they have seen each of these lines.
- 3 Have students explain how angles are formed.
- 4 Have students draw examples of angles that they can see around the room.
- 5 Have students use a clock with movable hands to demonstrate how an angle equal to a quarter turn is formed.
- 6 Have students give an example of angles that are equal to a quarter turn.

Geometric reasoning

Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064) 

Year 3: Assessment Task Card

3.17

Unit
17

Angles

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review the different types of lines: curved, diagonal, horizontal and vertical. Have the student describe how the lines are similar and different.
- Q2** Have the student practise drawing each type of line. Have the student identify the four types of lines in familiar objects. Discuss how objects can include a combination of different lines.
- Q3–4** Revise what an angle is. Have the student explore how angles are formed when two lines intersect. Encourage students to find different angles. Discuss how angles are also formed through rotation of lines. Have the student move the hands of a clock to form angles of different sizes.
- Q5–6** Revise the concept of an angle that is equal to a quarter turn. Have the student rotate one hand on a clock a quarter turn and describe the angle that is formed. Have them then find angles in the room that are the same size as the angle shown on the clock.

Geometric reasoning

Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064) 

Year 3: Assessment Task Card

3.18

Unit
18

Mental Strategies for Multiplication

Resources: A4 paper, 10-sided dice

- 1 Have students skip count by 2s up to 50. Ask them how this could help them multiply numbers by 2.
- 2 Give each student a sheet of paper. Present the following equations for students to solve. Have them explain the strategy they used.
 5×2 8×2 6×2 10×2
- 3 Have the students roll a 10-sided dice four times and multiply each number rolled by 1. Have them explain how they use place value to solve the problems.
- 4 Have the students roll the dice another four times and multiply each number rolled by 10. Have them explain the strategy they used to solve the problems.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.18

Unit
18

Mental Strategies for Multiplication

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Have the student use counters to make groups of 2. Have them skip count the groups and record these numbers. Have the student use this to help them record 2 times table facts.
- Q 2** Have the student use counters to model the multiplication facts. Emphasise that 2 times table facts are made of groups of 2. Then have the student double the numbers. Guide the student to recognise that doubling a number gives the same answer as forming that many groups of 2.
- Q 3–4** Have the student model $\times 1$ and $\times 10$ equations using MAB ones and tens. Emphasise that 1 times table facts can be modelled using ones because they are groups of 1. Emphasise that 10 times table facts can be modelled using tens because they are groups of 10.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.19

Unit
19

More About Mental Strategies for Multiplication

Resources: A4 paper, NTO 3.17 'Ten-Sided Dice'

- 1 Give each student a sheet of paper. Present them with NTO 3.17 'Ten-Sided 'Dice'. Roll the dice three times and have students multiply each number rolled by 5. Have students explain the mental strategy they used.
- 2 Roll the dice three more times and have students multiply the numbers rolled by 3. Have them explain the strategy they used.
- 3 Present the following numbers: 15, 20, 8, 60. Explain that these numbers are the answer to multiplication problems. Have them think of a multiplication problem for each number and explain the strategy they used.
- 4 Have students solve these problems and explain how they solved them quickly and accurately.

$$7 \times 2 \quad 9 \times 10 \quad 8 \times 1 \quad 3 \times 5 \quad 8 \times 3$$

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.19

Unit
19

More About Mental Strategies for Multiplication

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Review the strategy for multiplying numbers by 5, i.e. multiplying by 10 and halving. Have the student use counters to model multiplying numbers by 5, i.e. making groups of 5. Then have them multiply the same numbers by 10 and halve the answer by modelling with MAB. Emphasise that they have the same result.
- Q2 Revise the number sequence of counting by 3s. Discuss how being familiar with these numbers helps with multiplying numbers by 3. Have the student solve 3 times table facts by identifying the answers in the counting by 3s number sequence.
- Q3 Have the student revise the mental strategies for multiplication with which they are familiar. Have them develop multiplication problems using the strategies.
- Q4 Review the mental strategies for multiplication that students have explored. Encourage the student to model the strategies.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.20

Unit
20

Chance

Resources: NTO 3.22 'Spinner' or one of the spinners from BLM 53 'Spinners', A4 paper, blue and yellow counters, paper bag

- 1 Present NTO 3.22 'Spinner' or one of the spinners from BLM 53 'Spinners'. Ask, 'If I want to have a spinner that can have outcomes of yellow and red segments, but where yellow is more likely to occur, what would it look like?'
- 2 Give each student a sheet of paper. Have students test their spinner 20 times and record their results on the table below. (Students use either NTO 3.22 'Spinner' or one of the spinners from BLM 53 'Spinners'.)

Yellow	Red

Ask, 'Were the results what you expected? Explain.'

- 3 Have students place a combination of seven blue and yellow counters in a paper bag so that they are likely to get results shown in the table below, when drawing out a counter and replacing it 21 times.

Blue	Yellow
12	9

Chance

Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067) 

Year 3: Assessment Task Card

3.20

Unit
20

Chance

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Provide opportunities for the student to explore spinners, using LO: L2378 'Spinners: predict and test', LO: L2379 'Spinners: spin and label' and LO: L2380 'Spinners: explore'.
- Q2 Have the student conduct further chance experiments such as flipping coins, rolling dice and drawing playing cards. Have them work out the possible outcomes and identify the most likely outcome/s, then test to see if results match predictions.
- Q3 Give the student probability statements such as '3 out of 4 chance of a result of blue', 'an even chance of white and black' and 'unlikely to result in purple, but likely to result in yellow'. Have the student colour spinners or place counters in a bag to match the statements.

Chance

Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067) 

Year 3: Assessment Task Card

3.21

Unit
21

Patterns

Resources: A4 paper

- 1 Give each student a sheet of paper. Give them a number pattern, e.g. 4, 7, 10, 13, 16, and have them:
 - write the next three numbers in the sequence
 - write the rule for the pattern.
- 2 Have students develop 1-step number patterns using the following rules:
 - starting at 4, add 5
 - starting at 40, subtract 4.
- 3 Have students develop 2-step number patterns using the following rules:
 - starting at 20, add 7 and subtract 3
 - starting at 2, double and add 1.
- 4 Have students create a 2-step rule for a number pattern that they think is challenging and write the first ten numbers in the pattern.

Patterns and algebra

Describe, continue and create number patterns resulting from performing addition and subtraction (ACMNA060) 

Year 3: Assessment Task Card

3.21

Unit
21

Patterns

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Revise what a number pattern is. Model the numbers on a 100 chart or number line, look for a pattern and use counting to find the next numbers in the sequence.
- Q2** Revise what a rule is and how we use them in number patterns. Place the numbers on a number line to show the progression of the sequence.
- Q3–4** Review the work on 2-step rules from Lesson Plan 3. Simplify the rules to start at zero and contain only addition.

Patterns and algebra

Describe, continue and create number patterns resulting from performing addition and subtraction (ACMNA060) 

Year 3: Assessment Task Card

3.22

Unit
22

Multiplication

Resources: A4 paper, dice

- 1 Give each student a sheet of paper. Have students roll two dice and use the numbers rolled to draw an array.
- 2 Have students write the multiplication problem to match their array.
- 3 Have students write a worded problem to represent their multiplication equation.
- 4 Have students solve the following problems:

$$\begin{array}{r} 23 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 16 \times 2 \\ 33 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 13 \times 5 \end{array}$$

Number and place value

Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057) 

Year 3: Assessment Task Card

3.22

Unit
22

Multiplication

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Review multiplication problems and arrays. Present arrays to the student using counters and have them record the multiplication problem by counting the rows and the number of counters in each row. Have the student model their own arrays using the counters.
- Q3** Provide opportunities for the student to represent multiplication problems using materials. Have them write worded problems to match the multiplication problems.
- Q4** Review the process of multiplying 2-digit by 1-digit numbers. Have the student use NTO 3.7 'Modelling with MAB' to model the multiplication problem. Emphasise the process of multiplying the ones and then multiplying the tens. Revise the process of regrouping 10 ones as 1 ten where necessary.

Number and place value

Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057) 

Year 3: Assessment Task Card

3.23

Unit
23

Area

Resources: A4 paper, different sized and shaped sheets of paper and/or a collection of classroom items to measure (e.g. task book, books, pencil cases) and measure with (e.g. playing cards, sticky notes, counters, BLM 10 'Grid Paper')

- 1 Give students a sheet of paper and a collection of four objects to measure or a prepared collection of different sized and shaped pieces of paper. Ask students to order the objects from those with the smallest area to those with the greatest area. Have students explain their reasoning.
- 2 Ask students to select two measuring units from a range of uniform units, either formal or informal. Have students explain their choice.
- 3 Ask students to estimate the area of each object using both measuring units and record their estimates.
- 4 Ask students to find the actual area of each object using both measuring units and record their results.
- 5 Have students compare their results with their estimates. Discuss how accurate they were and why.
- 6 Have students compare their results with other students who used the same units. Are they the same/different? Why?

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.23

Unit
23

Area

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Remind the student that area is the size of a surface. Have them measure by eye to decide which has the smallest area and so on.
- Q2 Remind the student of the various informal measures used in Lesson Plan 1 and the square centimetre in Lesson Plan 2. Once chosen, encourage students to explain why they made their choices.
- Q3 Remind the student that an estimate is a guess. Have them look at the object and at their measuring device and decide how many they think will fit on their object.
- Q4 Revisit activities from Lesson Plans 1 and 2 where students use informal measures and square centimetres to measure items.
- Q5 Have the student look at their estimate and their actual measurement. Are they close? Why?
- Q6 If results are different, have the student compare the way they measured the area and think about why this could lead to varying results.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.24

Unit
24

Division

Resources: A4 paper

- 1 Give each student a sheet of paper. Have them solve the following division problems:
 $18 \div 3$ $32 \div 8$ $27 \div 4$ $45 \div 5$
- 2 Have students write a division story to represent the following problem: $21 \div 3$.
- 3 Have students explain how they would solve the following problem:
A cake cost \$36 and some friends each put in \$6 dollars to buy it. How many people were buying the cake?
- 4 Have students solve these division problems that have remainders:
 $35 \div 8$ $24 \div 5$ $16 \div 3$ $51 \div 7$
- 5 Have students explain how they would solve the following problem: $432 \div 3$.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.24

Unit
24

Division

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Review strategies for solving division problems. Have the student use counters or MAB to model sharing the total amount into groups. Revise how a ten can be renamed as 10 ones so that it can be shared among the groups.
- Q2–3** Revise how some division problems can be solved by calculating how many groups can be made out of a number. Discuss how some division problems tell us how many are in each group, which means we need to find out the number of groups. Use NTO 3.6 ‘Number Line’ to solve division problems by ‘jumping back’ the number in each group and counting the number of ‘jumps’ to identify the answer.
- Q4** Revise how some division problems involve numbers that cannot be shared evenly among the groups. Discuss how the leftovers are called remainders. Have the student solve division problems using counters or MAB and identify the remainders.
- Q5** Begin with the student solving division problems involving 2-digit numbers. Have them use MAB to model renaming a ten as 10 ones. When they are proficient, introduce division with 3-digit numbers. Have the student explore how a hundred can be renamed as 10 tens, as well as a ten being renamed as 10 ones.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.25

Unit
25

More About Division

Resources: A4 paper, counters

- 1 Give each student a sheet of paper. Have them use counters to make the following arrays:
 - four rows of 2
 - five rows of 3.
- 2 Have students record a division problem to match each array.
- 3 Present students with the following division problems and have them record the multiplication fact they would use to help solve each one:
 $30 \div 3$ $15 \div 5$ $16 \div 2$
- 4 Present students with the numbers 2, 5 and 10. Have them record the multiplication and division problems within this fact family.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.25

Unit
25

More About Division

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Have the student model arrays and explore how they relate to division problems. Have the student look at the array and identify the total amount, the number of rows and the number in each row. Have them record the equation.
- Q2–3** Revise the connection between multiplication and division. Use materials such as counters to model the connection between a multiplication fact and a division fact. Discuss how being familiar with a multiplication fact can help solve a division fact. Have the student record multiplication facts that could help solve division problems.
- Q4** Have the student use counters to model the multiplication problems and division problems. Model the equations $2 \times 5 = 10$ and $10 \div 2 = 5$. Discuss what the student has noticed. Emphasise that the equations involve the same numbers. Have the student rearrange the counters to form the other multiplication and division problems.

Number and place value

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 

Year 3: Assessment Task Card

3.26

Unit
26

Fractions

Resources: BLM 68 'Fraction Cards', BLM 10 'Grid Paper', A4 paper, glue

- 1 Give each student five fraction cards made from BLM 68 'Fraction Cards' (these may be random or selected depending on ability), a copy of BLM 10 'Grid Paper' and a sheet of paper.
- 2 Ask students to name each of their fractions.
- 3 Have students use the grid paper to draw each fraction as a partitioned square or rectangle and shade the appropriate number of squares to represent the fraction.
- 4 Have students divide their A4 paper into three sections – 'close to zero', 'close to half' and 'close to 1' – then sort and paste the fractions into their appropriate category.
- 5 Have students select two of their fraction drawings and write a sentence about how they knew which category each drawing belonged to.

Number and place value

Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.26

Unit
26

Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2** Revise what a fraction is and how we say them, e.g. $\frac{2}{5}$ is 'two fifths'.
- Q3** Revise the role of the top number (the numerator) and bottom number (the denominator) in fractions. The denominator tells us how many equal parts we are dividing our shape into (number of squares) and the top number tells us how many of the parts we are talking about (shading).
- Q4–5** Review the work on fraction size from Lesson Plan 3. Have the student fold their grid paper shape in half and look at whether the shaded section is close to the folded line (close to half), a lot smaller than the line (close to zero) or if the shape is almost fully shaded (close to 1). Use this knowledge to construct sentences.

Number and place value

Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.27

Unit
27

More About Fractions

Resources: fraction wall displayed in classroom, A4 paper, counters

- 1 Give each student a sheet of paper and have them write the following fractions at the top of their page:
 $\frac{1}{5}, \frac{1}{3}, \frac{1}{2}, \frac{1}{8}, \frac{1}{4}$
- 2 Have students order the fractions from smallest to biggest.
- 3 Using the fraction wall, have students complete the following sentences:
 - ___ is the same as ___
 - ___ is bigger than ___
 - ___ is smaller than ___.
- 4 Have students select one of their unit fractions to create a counting pattern with ten numbers, e.g. 0, $\frac{1}{3}$, $\frac{2}{3}$, 1, $1\frac{1}{3}$ etc.
- 5 Have students create three statements involving their unit fractions and a collection of 20 items, e.g. $\frac{1}{4}$ of 20 is 5. They may use counters or draw arrays to help.

Number and place value

Model and represent unit fractions including $\frac{1}{2}, \frac{1}{4}, \frac{1}{3}, \frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.27

Unit
27

More About Fractions

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2 Revise the fraction wall, comparing the relative size of each fractional part. Find the smallest and the biggest. Reinforce the idea that the more parts a whole is divided into, the smaller each part will be.
- Q3 Have the student use the fraction wall to find fractions that 'line up' (are equivalent) or those that are bigger/smaller than the specified fraction.
- Q4 Review the work on number lines from Lesson Plan 2. Have the student begin by using the fraction wall to decide how many parts make a whole, and use this knowledge to count to 1. Use the pattern created to continue the number line.
- Q5 Revise the work on fractions of collections from Lesson Plan 3. Simplify the task by using a collection of 8. Have the student model with two lines of four counters, then create statements using $\frac{1}{2}$ and $\frac{1}{4}$.

Number and place value

Model and represent unit fractions including $\frac{1}{2}, \frac{1}{4}, \frac{1}{3}, \frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.28

Unit
28

Decimals

Resources: A4 paper

- 1 Give each student a sheet of paper and have them divide their page into four sections.
- 2 In each section, have students write a number with one decimal place between 1 and 4, e.g. 1.7, 2.3, 3.8, 1.2.
- 3 In another section, have them write the equivalent mixed number (whole number and fraction) for each number.
- 4 In another section, have them draw a diagram to represent each number.
- 5 On the back of the sheet, have students order their numbers from smallest to largest.
- 6 Finally, have students construct a number line from 1 to 4 and place their numbers to scale on the number line.

Number and place value

Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.28

Unit
28

Decimals

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q2** Revise what a decimal is. Review the work on tenths from Lesson Plan 1. Have the student list the whole numbers that fall between 1 and 4, then add in the tenths values.
- Q3–4** Review the work on comparing fractions, decimals and diagrams from Lesson Plan 1. Have the student say what ‘tenth’ means (out of 10) and think of the fraction that corresponds to this.
- Q5** Review the work on the place-value mat with tenths from Lesson Plan 2. Have the student begin by ordering the whole numbers, then drawing diagrams of the tenths parts to decide which number (with the same whole number) is bigger.
- Q6** Revise the work on decimals on number lines from Lesson Plan 3. Have the student draw a line and write 1 and 4 at either end. Discuss how many whole numbers there are between 1 and 4 and mark partitions equally on the line. Look at the numbers in order from Q5 and decide on their position. Ensure that the student understands that the decimal 0.5 is equivalent to half, and uses this knowledge to help with placements on the number line.

Number and place value

Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 

Year 3: Assessment Task Card

3.29

Unit
29

Symmetry

Resources: A4 paper, BLM 79 '2D Shapes'

- 1 Give each student a sheet of paper. Have each student select three cards from BLM 79 '2D Shapes'. Have them identify each shape and write a description of it.
- 2 Present students with the following shapes and have them identify if they have a line of symmetry.



- 3 Present students with the following shapes and have them identify which ones have more than one line of symmetry.



- 4 Have students draw a square and all its lines of symmetry.

Location and transformation

Identify symmetry in the environment (ACMMG066) 

Year 3: Assessment Task Card

3.29

Unit
29

Symmetry

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Revise 2D shapes and their features. Have the student identify and name 2D shapes and discuss how many corners and sides they have. Have the student compare and contrast different 2D shapes and explain how they are similar and different. Have the student identify 2D shapes around the classroom.
- Q2 Review what 'symmetrical' means and have the student fold or cut 2D shapes in half to recognise whether the two sides are identical. Provide opportunities for the student to use a mirror to explore symmetrical shapes. Have the student identify symmetrical objects or shapes in the room. Revise how the line in the middle of a symmetrical shape is called the line of symmetry.
- Q3-4 Revise how some shapes have more than one line of symmetry. Have the student fold cut-outs of shapes in different ways to identify all the lines of symmetry.

Location and transformation

Identify symmetry in the environment (ACMMG066) 

Year 3: Assessment Task Card

3.30

Unit
30

Capacity

Resources: A4 paper, four different sized containers with different capacities (greater than 250 mL, but unmarked); a 250 mL container (unmarked; pop-top or cup would be ideal); measuring jug

- 1 Give each student a sheet of paper and four different containers (greater than 250 mL) and ask them to estimate the order of items from smallest to largest capacity. Have them record their order.
- 2 Using a 250 mL container, have students estimate how many of this container each of their four containers will hold. Have them record their estimates and explain their reasoning.
- 3 Have students measure how many of their 250 mL container will fit into their other containers and compare the actual result to their estimations.
- 4 Have students use measuring jugs to measure the amount of water held by each container and use this information to order the containers from smallest to largest capacity.
- 5 Have students compare their orders from Q1 and Q4 – how accurate were they?
- 6 For each of the four containers, write whether they hold more than, less than or exactly one litre.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.30

Unit
30

Capacity

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1 Have the student look at the size and shape of each container to decide how much it will hold, comparing two items at a time.
- Q2 Remind the student of the class activities from Lesson Plan 1, as well as 'How Many?' from Lesson Plan 2, Tuning In. Have the student look at the size of the 250 mL container compared to the others and predict how many times bigger the other containers are.
- Q3 Emphasise the need for accurate measurement – encourage the student to fill the small container to the top and to pour without spilling into the larger container. Students may work together on this, so one can pour and the other can count.
- Q4 Revise activities on using measuring jugs from Lesson Plan 3. Ensure that the student pours the water carefully and reads the scale accurately.
- Q5 Have the student look for any differences and apply reasoning as to why their results are different.
- Q6 Remind the student that 1 L = 1000 mL. Revise the activities from Lesson Plan 2.

Using units of measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061) 

Year 3: Assessment Task Card

3.31

Unit
31
3D Shapes

Resources: A4 paper, set of 3D shapes, playdough

- 1 Give each student a sheet of paper. Have them select three shapes from a set of 3D shapes and write the name of each shape.
- 2 Have students write a description of each shape by explaining its faces, edges and corners.
- 3 Have students draw the 2D shapes they would see if they were looking at the faces of a triangular prism.
- 4 Tell students that you are looking at a 3D shape and you can see a square. Have them list the 3D shapes you could be looking at.
- 5 Show students a pyramid from a set of 3D shapes. Have them explain how they know it is a pyramid.
- 6 Show students a prism from a set of 3D shapes. Have them explain how they know it is a prism.

Shape

Make models of three-dimensional objects and describe key features (ACMMG063) 

Year 3: Assessment Task Card

3.31

Unit
31
3D Shapes

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1–2** Revise 3D shapes and their features. Have the student locate and name 3D shapes and discuss their faces, edges and corners. Have them compare and contrast different 3D shapes and explain how they are similar and different.
- Q3–4** Review how the faces of 3D shapes are 2D shapes. Have the student look at the faces of 3D shapes and record the shapes they can see. Have them explore which 3D shapes have the same shaped faces.
- Q5** Review the features of pyramids. Present the student with a collection of pyramids and have them explain what they have in common. Encourage them to trace around the faces of pyramids and discuss what they notice.
- Q6** Review the features of prisms. Present the student with a collection of prisms and have them explain what they have in common. Encourage them to trace around the faces of prisms and discuss what they notice.

Shape

Make models of three-dimensional objects and describe key features (ACMMG063) 

Year 3: Assessment Task Card

3.32

Unit
32

Money

Resources: A4 paper, play money or BLM 22 'Banknotes' and BLM 87 'Coins'

- 1 Give each student a sheet of paper. Have them select an amount of money between \$1 and \$9 which contains both dollars and cents.
- 2 Have students model their amount using play money or BLM 22 'Banknotes' and BLM 87 'Coins'.
- 3 Have students model the same amount using a different set of notes and/or coins.
- 4 Have students work out the change they would receive from \$10 if they spent their amount of money. Have them model it using play money or BLM 22 'Banknotes' and BLM 87 'Coins'.
- 5 Have students model the change a different way, this time using only 50 cent, 10 cent and 5 cent coins.

Money and financial mathematics

Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059) 

Year 3: Assessment Task Card

3.32

Unit
32

Money

TARGETED ASSESSMENT

If the student is experiencing difficulty:

- Q1** Remind the student that money values are written to two decimal places. Remind them of the coins we use in Australia and have them make sure the amount ends in 5 or 0.
- Q2** Revise the value of our coins and banknotes. Have the student practise counting techniques to assist their adding, such as making 10 or 100 or adding the largest numbers first.
- Q3** Have the student look at the relationships between numbers and our coin and note values. Emphasise links, e.g. two \$5 notes equals \$10 and two 50 cent coins equals \$1.
- Q4-5** Revisit 'All About Change' from the Whole-Class Introduction and other activities from Lesson Plan 3. Have the student practise using either subtraction or the counting-up strategy to work out the difference between two values.

Money and financial mathematics

Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059) 