GUIDE TO ASSESSING USING THE NEW COOK ISLANDS' MATHEMATICS CURRICULUM

Grade 1-6

Marauri Apii o te Kuki Airani

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Guide to Assessing using the Cook Islands Mathematics Curriculum;

This document provides a sample assessment for each of the Units suggested in the Planning resource.

There is question for each learning outcome in the unit.

If you follow the suggested unit you can use the assessment as it is, but otherwise you can choose the question/s that is/are relevant to the learning outcomes you have taught.

The questions are designed to be used orally but can easily be changed to a written format.

These are all STANDARD BASED, ie the student can either do it or not. This is the form of assessment being used in secondary schools in NZ and the Cook Islands. For some questions there is a 2/3 or similar fraction, this means that the student must get 2 of the 3 questions right in order to achieve.

A tracking sheet is also provided this is to allow you to report against the LO's of the curriculum. At some stage this will become part of the Ministry data base.

I hope this makes your teaching and assessing easier

Alison Fagan

Mathematics Curriculum Developer

ASSESSMENT FOR YEAR 1

NUMBER UNIT 1

N 1.1 L 1 Identify all of the numerals in the range 0-20
N 1.1 L 2 Write the numerals in the range 0-20
N 1.1 L 3 Order numbers in the range 0-20
N 1.1 L 4 Say the number before or after a given number in the range 0-20
N 1.2 L 2 Count a set of up to 20 objects

1. Give a child a set of (between 10 and 20) objects and ask them to count them ☐
2. Ask the child to write the numerals for eg 8, 13 and 19 as you read the number to them >2/3 ☐
3. Show the child 3 numerals eg 9, 14 and 17 and ask them to identify them >2/3 ☐
4. Show the child the same 3 numerals as above and ask them to name the number before and after each one >2/3 ☐
5. Ask the child to put the 3 numerals above in order ☐

MEASUREMENT

M 1.1 L1 Measure lengths by counting non standard units using body measurements e.g. handspans, feet.
M 1.2 L 1 Compare lengths using appropriate units & language e.g. wider
M 1.4 L 1 Describe time using everyday language e.g. bed time, lunch time, home time, days of the week & before & after.

1. Ask the child how many
   - Handspans along the desk
   - Of their feet across the classroom
   - Strides from the classroom to eg nearest tree > 2/3 ☐
2. Show them
   - 2 objects and ask which is longer
   - 2 objects and ask which is wider
   - 2 objects and ask which is shorter/ narrower > 2/3 ☐
3. Ask the child
   - what day is it today?
   - Which comes first home time or bed time?
   - What always happens on Mondays? > 2/3 ☐

ASSESSMENT FOR YEAR 1

NUMBER UNIT 2

N 1.1 L 3 Order numbers in the range 0-20
N 1.1 L 4 Say the number before or after a given number in the range 0-20
N 1.2 L 2 Count a set of up to 20 objects
N 1.2 L 1 Use one to one counting to form a set of up to 20 objects

1. Show the child 3 numerals and ask them to name the number before and after each one >2/3 ☐
2. Ask the child to put the 3 numerals in order ☐
3. Give a child a set of between 10 and 20 objects and ask them to count them ☐
4. Ask a child take eg 12 objects from a collection. ☐

NUMBER UNIT 3

N 1.2 L 1 Use one to one counting to form a set of up to 20 objects
N 1.2 L 3 Know groupings within 5
N 1.4 L 1 Solve simple addition problems to 20 by counting all the objects

1. Ask a child to take eg 14 objects from a collection. ☐
2. Hold up 3 fingers and ask how many more make 5?, repeat with 2 other numbers > 2/3 ☐
3. Give the child 2 groups of objects and ask them how many there are altogether eg 5 shells and 4 shells. One of the sums should be > 10 > 2/3 ☐

STATISTICS AND PROBABILITY

S 1.1 L 1 Choose a set of objects eg leaves and sort according to a characteristic
S 1.1 L 2 Display their sorted objects in an organized way
S 1.1 L 3 Describe aspects of their collection

Use the activity for S 1.1 L 1-3 from the level 1 Resource book for the CIMC do not expect them to do a separate activity for the assessment.

1. Have sorted their objects according to a characteristic ☐
2. Displayed their objects in an organized way ☐
3. Have described their collection ☐

ASSESSMENT FOR YEAR 1

NUMBER UNIT 4

N 1.2 L 1 Use one to one counting to form a set of up to 20 objects
N 1.4 L 2 Solve simple subtraction problems from 20 by counting all the objects

1. Ask a child to take eg 15 objects from a collection. ☐

2 Give the child a set of objects and ask how many there would be if they took a certain number away, allow the child to remove the objects. eg here are 12 shells, take 4 shells away, how many are left? ☐

NUMBER UNIT 5

N 1.3 L 1 Recognize the symbols for half and quarter.
N 1.3 L 2 Find halves and quarters of a set of objects of up to 20 objects by equal sharing.
N 1.3 L 3 Find halves and quarters of a shape by folding or drawing

Show the symbols for ½ and ¼ 1/3, and 1/5 to the student and ask which one is ½, and 1/4 ☐

2. Give the student 16 objects and ask them to show what half of them are? Then ask them to show what a quarter of them are. ☐

Give the student 2 rectangles and ask them to shade in half of one and a quarter of the other one. ☐

ALGEBRA

A1.1 L 1 Use sticks or other materials to make simple patterns
A1.1 L 2 Describe their pattern using words such as "more than" or "less than"

1. Ask the students to make a pattern using sticks ☐

2. Ask the students whether the next piece in a pattern will have more or less sticks in it ☐

ASSESSMENT FOR YEAR 1

NUMBER UNIT 6

N 1.4 L 1 Solve simple addition problems to 20 by counting all the objects
N 1.4 L 2 Solve simple subtraction problems from 20 by counting all the objects
N 1.5 L 1 Know that adding whole numbers increases a value
N 1.5 L 2 Know that subtracting whole numbers decreases a value
N 1.5 L 3 Use materials or pictures to illustrate simple addition or subtraction problems

1. Give the child 2 groups of objects and ask them how many there are altogether eg 5 shells and 4 shells. One of the sums should be > 10 > 2/3 ☐

2. Give the child a set of objects and ask how many there would be if they took a certain number away, allow the child to remove the objects. eg here are 12 shells, take 4 shells away, how many are left? ☐

3. Say to the student "if I add 3 shells to 5 shells will I have more shells or less shells?" ☐

4. Say to the student "if I take 2 shells away from 8 shells will I have more shells or less shells?" ☐

5. Ask the student to draw a picture showing addition eg there were 4 pawpaws in a basket and you put3 more pawpaw into the basket.
OR use materials to show " you have 7 cubes and I took 3 away ☐

NUMBER UNIT 7

N 1.1 L 5 Say the forwards and backwards number word sequences in the range 0-20 with understanding

1. Ask the students to count forwards and backwards from 0 -20. Ensure they don't chant the words. Then ask them to start at 4 and count up and back. Ask them to count backwards starting from 18.

☐

ASSESSMENT FOR YEAR 1

GEOMETRY

G 1.1 U 1 Name circles, squares, triangles, pentagons, hexagons and ovals
G 1.1 U 2 Sort shapes into circles, squares, triangles, pentagons and hexagons
G 1.1 U 3 Use the words straight, curved and pointed to describe shapes
G 1.3 L 1 Use the words on, above, under and between to describe the relative position of objects.
G 1.3 L 2 Place familiar objects on, above, under and between other objects
G 1.3 L 3 Follow part of a sequence of instructions relative to their position

1. Give the student a selection of shapes and ask them to name them, >5/6 ☐

2. Give the student a selection of shapes and tell them to sort into correct groups. >4/5 ☐

3 Ask the students which of the shapes used above have straight sides, and which have curved sides. Ask which of the shapes have points. > 2/3 ☐

4 Place a book above the desk and ask the student to describe its position relative to desk
Place a book below the desk and ask the student to describe its position relative to desk
Place a book between 2 chairs and ask the student to describe its position relative to desk
>2/3 ☐

5 Ask the student to place an object above the desk
Ask the student to place an object below the desk
Ask the student to place an object between 2 other objects >2/3 ☐

6. Give the student a list of instructions, eg go forward 3 steps, turn right, walk 4 steps, turn left and walk 2 steps, ☐

ASSESSMENT FOR YEAR 2

NUMBER UNIT 1

N 1.1 L 1 Identify all of the numerals in the range 0-20
N 1.1 L 2 Write the numerals in the range 0-20
N 1.1 L 3 Order numbers in the range 0-20
N 1.1 L 4 Say the number before or after a given number in the range 0-20
N 1.1 L 5 Say the forwards and backwards number word sequences in the range 0-20 with understanding

Ask the child to write the numerals for eg 8, 13 and 19 as you read the number to them >2/3 ☐

2 Show the child 3 numerals eg 9, 14 and 17 and ask them to identify them >2/3 ☐

3. Show the child the same 3 numerals as above and ask them to name the number before and after each one >2/3 ☐

4. Ask the child to put the 3 numerals above in order ☐

5. Ask the students to count forwards and backwards from 0 -20. Ensure they don't chant the words. Then ask them to start at 4 and count forward and backward. Ask them to count backwards starting from 18. ☐

MEASUREMENT

M 1.1 U 1 Measure length, mass & volume using non body measurements e.g. string, books, cups.
M 1.2 U 1 Compare mass & volume using appropriate units & language e.g. heavier, lighter, bigger, smaller.
M 1.3 L 1 Identify coins used in the Cook Islands.
M 1.3 L 2 Know the comparative value of coins used.

1. Give the student a piece of string (approx 20-30 cm) and ask the student to find how many pieces of the string make the length of the desk.
Ask the student to find how many pencils weigh the same as a book.
Ask the student to find how many cups of water will fill a jug. > 2/3 ☐

Ask the student to compare 2 objects eg a bag with books and one with clothes and say which is heavier. (or any objects of approx same size but different weight) ☐
Ask the student to compare 2 objects eg a jug and a bucket and say which is bigger ☐

3. Give the student a selection of Cook Island coins and ask them what value they are ☐

4. Give the student 2 coins and ask them which one is worth more. ☐

ASSESSMENT FOR YEAR 2

NUMBER UNIT 2

N 1.1 U 1 Identify the numerals in the range 0-50
N 1.1 U 2 Write the numerals in the range 0-50
N 1.1 U 4 Name the number before or after a given number in the range 0-50
N 1.1 U 5 Say the forwards and backwards number word sequences in the range 0-50 with understanding

1. Show the student 3 numerals, eg 26, 38 and 41 and ask them to identify them > 2/3 ☐
2. Ask the student to write the numerals for eg 29, 36 and 43 > 2/3 ☐
3. Show the child the same 3 numerals as above and ask them to name the number before and after each one >2/3 ☐
4. Ask the students to count forwards and backwards from 0 -50. Ensure they don't chant the words. Then ask them to start at 17 and count forward and backward. Ask them to count backwards starting from 48. ☐

NUMBER UNIT 3

N 1.2 U 1 Use any counting strategy to form a set of up to 50 objects.
N 1.2 U 2 Count a set of up to 50 objects

1. Give the student collection of objects and ask them to take eg 35 of them ☐
2. Give the student a set of eg 40 objects and ask them to count them ☐

ASSESSMENT FOR YEAR 2

STATISTICS AND PROBABILITY

S 1.1 U 1 Choose a set of objects eg leaves and sort according to a specified characteristic
S 1.1 U 2 Display their sorted objects in a graphical form
S 1.1 U 3 Describe comparative aspects of their collection
S 1.2 L 1 Use words such as never, always, might in an appropriate context

1. Ask the student to sort a set of objects into 2 specified characteristics, eg green leaves or brown leaves. ☐

2. Ask the student to arrange the 2 sorts of objects in some way, This can be done by laying them in 2 straight lines, forming a simple bar graph or pictograph ☐

3. Ask the student to make some comment that compares the two types of objects, eg there are more green leaves than brown leaves ☐

4. Ask the student to put the correct word in each of the following sentences ☐

   - The sun.....rises (always)
   - I.....go to the shop after school (might)
   - My teacher.....walks home (never)

NUMBER UNIT 4

N 1.1 U 3 Order numbers in the range 0-50
N 1.4 U 1 Solve simple addition problems to 50 by counting all the objects in their head (by imaging)
N 1.4 U 2 Solve simple subtraction problems from 50 by counting all the objects in their head (by imaging)

1. Give the student 3 numeral cards eg 21, 39 and 43 and ask them to put them in order ☐

2. Give the student 2 groups of objects and ask them how many there are altogether eg 15 shells and 8 shells. The student should be able to do this in their head, without touching the objects. ☐

3. Give the student a set of objects eg 27 and ask them how many there would be if you took away 5 of them. The student should be able to do this in their head, without touching the objects. ☐

ASSESSMENT FOR YEAR 2

NUMBER UNIT 5

N 1.3 L 1 Recognize the symbols for half and quarter.
N 1.3 L 2 Find halves and quarters of a set of objects of up to 20 objects by equal sharing.
N 1.3 L 3 Find halves and quarters of a shape by folding or drawing
N 1.3 U 1 Recognize and write the symbols for half and quarter.

1. Show the student the symbols for ½ , 1/3, ¼ , and 1/5 and ask them which is ½ and 1/4 ☐
2. Give the student a set of eg 16 objects and ask them to give you half of them. Then ask them to give you a quarter of them. ☐
3. Give the student a piece of paper and ask them to fold it in half, then ask them to fold it into quarters. OR give the students a shape eg a rectangle and ask them to shade in a half and then on another one to shade in a quarter. ☐
4. Ask the student to write the symbols for ½ and ¼ ☐

ALGEBRA

A1.1 L3 Demonstrate relationships such as " more than" or "less than" using materials
A1.2 L1 Demonstrate simple operations involving =, "is the same as" using concrete materials, eg 3 + 2 = 4 + 1

. Use the "more than" and "less than" cards from Level 1 resource book, and ask student to use the correct one between 2 sets of objects. ☐

eg 3 shells "more than" 2 shells etc

Use the "is the same as =" card from the Level 1 resource book and give the students some objects and ask them to make sets that are the same on each side of card. ☐

eg 3+2 = 4 + 1, repeat

ASSESSMENT FOR YEAR 2

NUMBER UNIT 6

N 1.2 U 3 Know groupings with 5
N 1.4 U 1 Solve simple addition problems to 50 by counting all the objects in their head (by imaging)
N 1.4 U 2 Solve simple subtraction problems from 50 by counting all the objects in their head (by imaging)

Hold up hands with 5 fingers on one and a different number on other and ask child how many altogether? eg 5 + 2 = 7, 5 + 4 = 9 ☐

2 Give the student 2 groups of objects and ask them how many there are altogether eg 15 shells and 8 shells. The student should be able to do this in their head, without touching the objects. ☐

4 Give the student a set of objects eg 27 and ask them how many there would be if you took away 5 of them. The student should be able to do this in their head, without touching the objects. ☐

NUMBER UNIT 7

N 1.3 U 2 Find halves and quarters of a set of objects to 50 using materials
N 1.3 U 3 Find halves or quarters of a shape

1. Give the student a set of eg 24 objects and ask them to give you half of them. Then ask them to give you a quarter of them. ☐

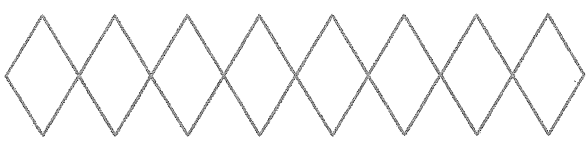
2. Give the student a piece of paper an ask them to fold it in half, then ask them to fold it into quarters. OR give the students a shape eg a rectangle and ask them to shade in a half and then on another one to shade in a quarter. ☐

ASSESSMENT FOR YEAR 2

GEOMETRY

G 1.2 L 1 Use a simple shape template and translation to make a pattern.
G 1.2 L 2 Describe the pattern they have created
G 1.3 U 1 Use the words behind, in front of, outside and inside to describe the relative position of objects.
G 1.3 U 2 Place familiar objects behind, in front of, outside and inside other objects
G 1.3 U 3 Follow a sequence of instructions relating to position and movement.
G 1.4 L 1 Rotate themselves through half a turn
G 1.4 L 2 Rotate an object through half a turn

1. Give the student a shape and ask them to draw around it and then move it sideways (translation) to make a pattern eg



2. Ask the student to describe their pattern, eg 8 rhombus' (diamonds) in a row or line.

3. Hold an object eg pen, behind, in front of you, outside and inside a container and ask the student to describe its position >3/4

4. Ask the student to

   - Put a book behind the chair
   - Put a book in front of the chair
   - Put a book inside a bag
   - Put a book outside a bag >3/4

5. Ask the student to follow a series of instructions, eg. " walk to the door, go outside, turn right, run to the end of the building, walk slowly to the tree, run back to the door.

6. Ask the student to turn through half a turn, eg from facing the blackboard to facing away from it.

7. Ask the student to turn an object eg a chair through half a turn, so that it is facing the opposite direction

ASSESSMENT FOR YEAR 3

NUMBER UNIT 1

N 1.1 U 1 Identify the numerals in the range 0-50
N 1.1 U 2 Write the numerals in the range 0-50
N 1.1 U 3 Order numbers in the range 0-50
N 1.1 U 4 Name the number before or after a given number in the range 0-50
N 1.1 U 5 Say the forwards and backwards number word sequences in the range 0-50 with understanding

1. Show the student 3 numerals, eg 26, 38 and 41 and ask them to identify them > 2/3 ☐
2. Ask the student to write the numerals for eg 29, 36 and 43 > 2/3 ☐
3. Give the student 3 numeral cards eg 21, 39 and 43 and ask them to put them in order ☐
4. Show the child the same 3 numerals as above and ask them to name the number before and after each one >2/3 ☐

   Ask the students to count forwards and backwards from 0 -50. Ensure they don't chant the words. Then ask them to start at 17 and forward and backward. Ask them to count backwards starting from 48. ☐

MEASUREMENT

M 1.3 U 1 Know the value of coins & notes up to $20.
M 1.3 U 2 Read straight forward prices.
M 1.3 U 3 Know the value of common items e.g. packet of chips, can drink.
M 1.4 U 1 Read clock times (to hours & half hours).

1. Give the student
   - a selection of 3 coins eg $2, 50c and 10c and ask them to identify them >2/3
   - a selection of 3 notes eg $5, $10 and $20 and ask them to identify them >2/3 ☐
2. Show the student cards with prices written on them eg $2.50, $5.00, $18 and ask them to read them >2/3 ☐
3. Ask the student how much some items cost, eg a pie, a donut and a bottle of Vaiora >2/3 ☐
4. Show the student a clock face with different times on it, eg 2 o'clock, 7 o'clock and half past nine, and ask them to read them >2/3 ☐

ASSESSMENT FOR YEAR 3

NUMBER UNIT 2

N 1.2 U 1 Use any counting strategy to form a set of up to 50 objects.
N 1.2 U 2 Count a set of up to 50 objects

1. Give the student collection of objects and ask them to take eg 43 of them ☐
2. Give the student a set of eg 45 objects and ask them to count them ☐

NUMBER UNIT 3

N 1.4 U 1 Solve simple addition problems to 50 by counting all the objects in their head (by imaging)
N 1.4 U 2 Solve simple subtraction problems from 50 by counting all the objects in their head (by imaging)

1. Give the student 2 groups of objects and ask them how many there are altogether eg 25 shells and 9 shells. The student should be able to do this in their head, without touching the objects. ☐
2. Give the student a set of objects eg 37 and ask them how many there would be if you took away 6 of them. The student should be able to do this in their head, without touching the objects. ☐

STATISTICS AND PROBABILITY

S 1.2 U 1 Use words such as, impossible, possible, very likely or certain to describe familiar events.
S 1.2 U 2 Rank familiar events in order of their probability of occurring.

1. Give the student a list of familiar events and ask them to describe them using correct words. eg
   - Swimming to next island (impossible)
   - Climbing the mango tree (possible)
   - Play soccer (netball) this week (very likely)
   - Fall asleep tonight (certain)

   ☐
2. Ask the student to put some events in order of their likelihood of happening
   eg, they will brush their teeth, their teacher will have a motor accident today, it will rain today ☐

ASSESSMENT FOR YEAR 3

NUMBER UNIT 4

N 1.5 U 1 Understand that subtraction is the opposite process to addition
N 1.5 U 2 Show that subtraction can be done by "counting on"
N 1.5 U 3 Use a word problem to illustrate simple addition and subtraction problems

1. Tell the student that eg 5 + 4 =9, and ask them to give a problem that shows that subtraction is the reverse process. eg 9-4 = 5, or 9-5 =4 ☐

2 Ask the student to solve a subtraction by counting on, eg 9-3 can be done by counting 4,5,6,7,8,9 = 6. NOTE they do not count 3 ☐

3. Ask the student write a word problem to show

   an addition problem eg I bought 4 donuts and then I bought 3 more donuts, I now have 7 donuts.

   - A subtraction problem eg I picked 9 mangoes and then I gave 2 mangoes away. I now have 7 mangoes ☐

NUMBER UNIT 5

N 1.3 U 1 Recognize and write the symbols for half and quarter.
N 1.3 U 2 Find halves and quarters of a set of objects to 50 using materials
N 1.3 U 3 Find halves or quarters of a shape

1. Show the student cards with ½, 1/3, ¼, 1/5 and ask them which is ½ and ¼. Ask the student to write the symbols for half and quater ☐

2. Give the student a set of eg 20 objects and ask them to give you half of them. Then ask them to give you a quarter of them. ☐

3. Give the student a piece of paper and ask them to fold it in half, then ask them to fold it into quarters. OR give the students a shape eg a rectangle and ask them to shade in a half and then on another one to shade in a quarter. ☐

ASSESSMENT FOR YEAR 3

ALGEBRA

A 1.1 U 1 Describe and continue simple repeating and sequential patterns
A 1.1 U 2 Illustrate and discuss relationships using pictures and arrows
A 1.2 U 1 Using materials or stories write and explain number sentences using =

1. Ask the student to make
   - a simple repeating pattern, eg using counters red, blue, red, blue, etc
   - a simple sequential pattern, eg using counters, 1 counter, 3 counters, 5 counters etc

   As them to describe their pattern
   - eg "it goes red then blue then red"
   - eg "there are 2 more counters each time"

2. Ask the student to write an example of a relationship using arrows.
   eg "is the sister of" Ani ⟶ Petero

3. Ask the student to
   - use counters to explain the number sentences $1 + 3 = 4$, $2 + 4 = 6$
   - write a story to explain $1 + 3 = 4$. eg I picked one mango and then picked 3 more mangoes, now I have 4 mangoes.

ASSESSMENT FOR YEAR 3

GEOMETRY

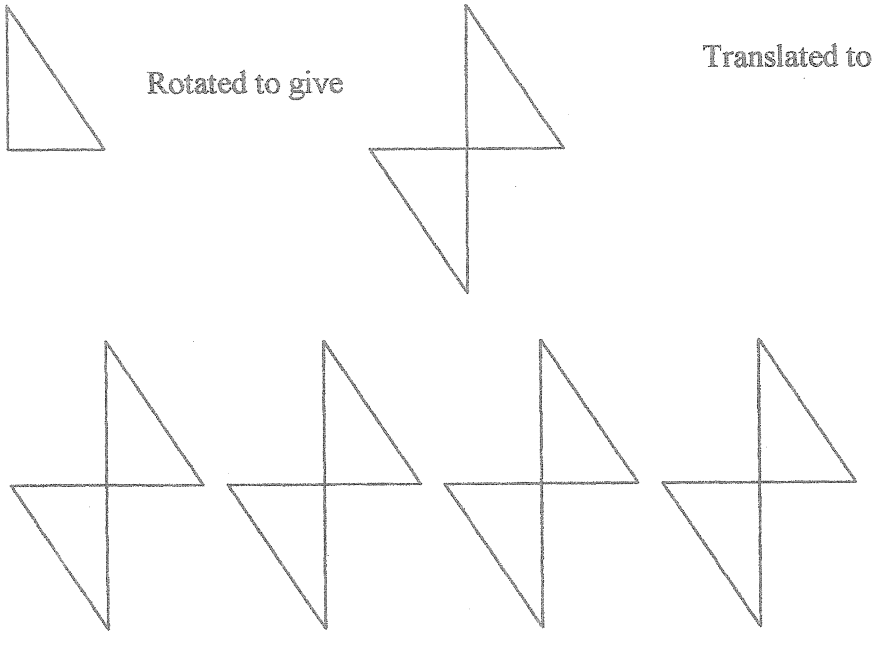
G 1.1 U 1 Name circles, squares triangles, pentagons, hexagons and ovals
G 1.1 U 2 Sort shapes into circles, squares, triangles, pentagons and hexagons
G 1.1 U 3 Use the words straight, curved and pointed to describe shapes
G 1.2 U 1 Make a template of a shape and use translation and/ or rotation to create a pattern
G 1.4 U 1 Rotate themselves through a half or quarter turn and describe their change in view
G 1.4 U 2 Rotate a shape or object through a half or quarter turn, and describe the change of view.

1. Give the student a selection of shapes and ask them to name them, >5/6 ☐

2. Give the student a selection of shapes and tell them to sort into correct groups. >4/5 ☐

3 Ask the students which of the shapes used above have straight sides, and which have curved sides. Ask which of the shapes have points. >2/3 ☐

4 Ask the student to make a shape out of cardboard (or plastic lid) , and then to use translation or rotation to make a pattern ☐



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Have the student (s) face the blackboard, and then turn through half a turn to face opposite way. Then have them turn through quarter turns (4 to complete)

Put an object eg chair in front of student (s) and then turn it through quarter of a turn. Ask them to say how it looks different. ☐

ASSESSMENT FOR YEAR 4

NUMBER UNIT 1

N 2.1 L 1 Identify all of the numerals in the range 0 - 100
N 2.1 L 2 Write the numerals in the range 0- 100
N 2.1 L 3 Order numbers in the range 0- 100
N 2.1 L 5 Say the forwards and backwards number word sequence in the range 0 – 100 with understanding

1. Show the student 3 numerals eg 42, 76 and 93 and ask them what they are >2/3 ☐
2. Ask the student to write the numerals for eg 38, 68, and 84 >2/3 ☐
3. Ask the student to put the above numerals in order ☐
4. Ask the student to count from 50 to 100. Ensure they don't chant the words. Then ask them to start at 67 and count uforwards to 80. Ask them to count backwards starting from 98 to 70 ☐

MEASUREMENT

M 2.1 L 1 Use rulers to find the length of objects and record in cm or m.
M 2.3 L 1 Be able to read digital time.
M 2.2 L 1 Use notes & coins to "purchase" objects.
M 2.2 L 2 Use different combinations of coins & notes to make an amount.

1. Ask the student to measure the length of 3 objects eg a book, a pencil and a piece of paper. Their answer should be in cm and accurate to within 5mm (0.5 cm) ☐
2. Show the student cards with digital time printed on them

3.15pm	**11.30am**	**8.00pm**

And ask them what time they represent >2/3 ☐

5. Set up a "shop" with various goods with prices labeled on them. eg empty drink bottle, empty chips packet etc. Give the student a list of 2-3 items to buy and let them use "play money" to buy them. ☐
6. Give the student a card with a certain amount printed on it, eg $3.50 and ask them how to make that amount using coins and notes. Repeat 2 times. >2/3 ☐

ASSESSMENT FOR YEAR 4

NUMBER UNIT 2

N 2.1 L 4 Name the number before or after a given number in the range 0-100
N 2.1 L 6 Write a numeral up to 100 in words
N 2.2 L 1 Count a set of objects by skip counting in 2's or 5's.
N 2.2 L 2 Compare the size of sets of even objects

1. Show the student 3 numeral cards eg 48, 71 and 96 and ask them the number before and after each one >2/3 ☐

2. Ask the student to write the above numerals in words >2/3 ☐

3. Ask the student to give you
   - eg 12 counters, they must count them out in 2's. ie 2,4,6,8,10 12
   - eg 15 counters, they must count them out in 5's. ie 5, 10, 15
   - eg 10 counters, they can count them in 2's or 5's >2/3 ☐

4. Give the student 2 sets of objects eg 8 counters and 10 counters and ask them which has more. The student should solve this by arranging in 2' s to compare ☐

8	10
OO	OO
OO	OO
OO	OO
OO	OO
	OO

NUMBER UNIT 3

N 2.1 L 1 Identify all of the numerals in the range 0 - 100
N 2.1 L 2 Write the numerals in the range 0- 100
N 2.4 L 1 Solve addition problems by counting on from the larger number
N 2.4 L 2 Solve subtraction problems by counting on

1. Show the student 3 numerals eg 51, 62, and 89, and ask them what they are >2/3 ☐

2. Ask the student to write the numerals for eg 43,58, 94 >2/3 ☐

3. Ask the student to add 2 numbers together, they must do it by counting on from the larger number. eg 7 + 5 should be done by 8,9,10,11,12 repeat 2 times >2/3 ☐

4. Ask the student to solve a subtraction problem by counting on. eg 12 – 7, would be solved by counting 8, 9 , 10, 11, 12 = 5. Do NOT start at 7 >2/3 ☐

ASSESSMENT FOR YEAR 4

STATISTICS AND PROBABILITY

S 2.1 L 1 Use tally charts to record information
S 2.1 L 2 Use pictographs or bar charts to illustrate their findings.
S 2.2 L 1 Discuss aspects of their graphs
S 2.2 L 2 Understand that their collection represents a sample of the population

This unit can be assessed using a project: How do the children at this school come to school? The students chose a sample (a small part of the school) to survey. This could be a few children from each class.

1. The student will have made a tally chart and recorded the results of their survey ☐
2. The student will show the results on a bar graph or pictograph ☐
3. The students will be able to discuss their graph, eg " My graph shows that more students come to this school by car than by bike" ☐
4. The student should be able to explain that their results are only from a sample (small part) of the population (school) and may not be the same results s the whole school. ☐

NUMBER UNIT 4

N 2.2 L 1 Count a set of objects by skip counting in 2's or 5's.
N 2.2 L 2 Compare the size of sets of even objects
N 2.5 L 1 Develop an understanding of the patterns in multiplication.

1. Ask the student to give you
   - eg 12 counters, they must count them out in 2's. ie 2,4,6,8,10 12
   - eg 15 counters, they must count them out in 5's. ie 5, 10, 15
   - eg 10 counters, they can count them in 2's or 5's >2/3 ☐
2. Give the student 2 sets of objects eg 8 counters and 10 counters and ask them which has more. The student should solve this by arranging in 2' s to compare ☐

8	10
OO	OO
OO	OO
OO	OO
OO	OO
	OO

3. The student should be able to show or explain the patterns of the 2 and 5 tables. This could be done using an abacus .eg ☐

0000 shows 4 x 2 00000 shows 5 x 2
0000 00000

ASSESSMENT FOR YEAR 4

NUMBER UNIT 5

N 2.3 L 1 Identify the symbols for ½, 1/3, ¼, 1/5
N 2.3 L 2 Find ½ , 1/3, ¼, 1/5 of a set of objects using materials
N 2.3 L 3 Order the unit fractions ½, 1/3, ¼,1/5,
N 2.3 L 4 Find the fraction of a shape by folding or cutting

1. Give the student cards with the symbols for ½, 1/3, ¼ and 1/5 on them and ask them which is which. > 3/4 ☐

2. Give the student a set of 30 objects and ask them to give you ½ , 1/3, ¼ and 1/5 of them . Or this can be done using diagrams of 30 objects and asking them to colour in or circle ½, 1/3, ¼ and 1/5 of them >3/4 ☐

3. Give student cards with the fractions printed on and ask them to put the cards in order from smallest **fraction** to largest **fraction.** Check that the student is correct by asking " which is the smallest fraction" ☐

4. Give the student a piece of paper and ask them to find 1/3 of it by folding it. Give the student a diagram of a shape and ask them to find a 1/5 of it and colour it in. ☐

ALGEBRA

A 2.1 L 1 Continue a simple linear relationship
A 2.1 L 2 Use a rule in words to describe a linear relationship eg. 2,4,6,8.... 10,9,8,7....
A 2.1 L 3 Explore patterns such as 3->1, 4->2, 5->3
A 2.3 L 1 Interpret a graph of a familiar relationship such as hunger during the day,

1. Give the student a simple linear relationship, eg 1,3, 5, and ask them to give the next 3 numbers ☐
2. Ask the student to give a rule for eg the above relationship. " the number is 2 more each time" ☐
3. Show the student a relationship such as 1-> 4, 2-> 5, 3-> 6 and ask them to explain it and give another pair in the relationship.
4. Show the student(s) a graph of eg their happiness during the day and ask them to explain how they feel at different times according to the graph.

ASSESSMENT FOR YEAR 4

NUMBER UNIT 6

N 2.2 L 3 Know groupings within 10
N 2.1 L 4 Name the number before or after a given number in the range 0-100
N 2.1 L 6 Write a numeral up to 100 in words
N 2.4 L 1 Solve addition problems by counting on from the larger number
N 2.4 L 2 Solve subtraction problems by counting on

1. Show the student a 10s frame with eg 7 counters and ask them how many more would make 10. repeat 2 times. OR hold up 7 fingers and ask how many more to make 10. >2/3 ☐
2. Show the student 3 numerals, eg 57, 72 and 94 and ask them to identify them >2/3 ☐
3. Ask the student to write the above numerals in words >2/3 ☐
4. Ask the student to solve 3 addition problems by counting on eg 23 + 4, 36 + 8, 71 + 11. This would be done by 24, 25,26, 27 = 27 >2/3 ☐
5. Solve 3 subtraction problems by counting on, eg 28-22, by 23,24,25,26,27,28 = 6, do NOT start counting at 22. Repeat 2 times >2/3 ☐

GEOMETRY

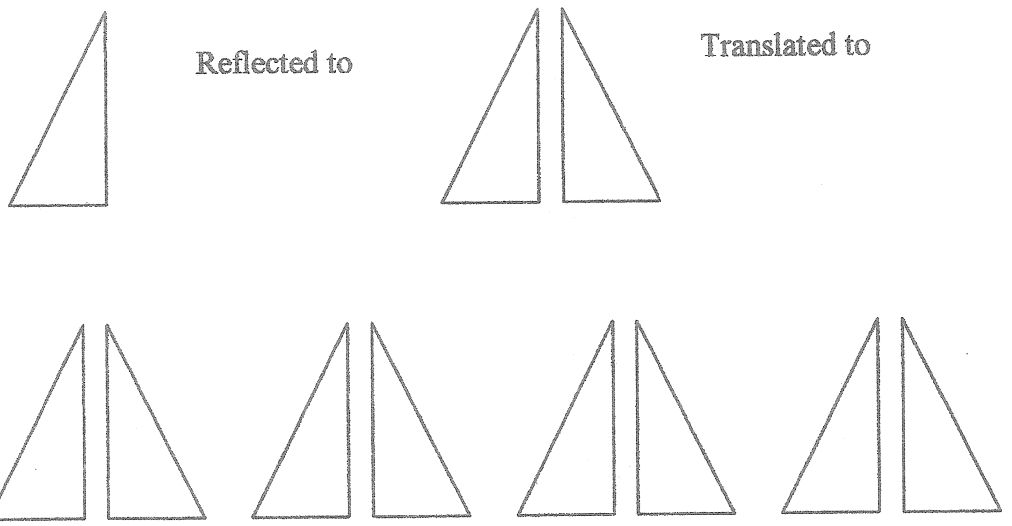
G 2.1 L 1 Describe circles, ovals, squares, rectangles, triangles, pentagons and hexagons.
G 2.1 L 2 Use the terms curved, straight and the number of sides to classify shapes.
G 2.3 L 1 Use reflection and/or translation of a shape to create a pattern.
G 2.3 L 2 Be able to identify the symmetry of a pattern
G 2.4 L 1 Use the words further, closer and beside to describe the relative positions of objects.
G 2.4 L 2 Make clockwise and anticlockwise turns

1. Give the student each of the shapes and ask them to describe them eg
   - A circle is a curved shape whose outside is the same distance from the middle.
   - An oval is a curved shape, a circle that has been "flattened"
   - A square has 4 sides, the sides are all equal, the corners are right angles
   - A rectangle has 4 sides, 2 of the sides are longer than the other 2, the corners are right angles
   - A triangle is a shape with 3 straight sides
   - A pentagon is a shape with 5 straight sides
   - A hexagon is a shape with 6 straight sides > 5/7 ☐

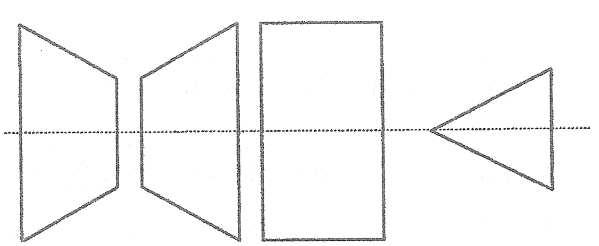
ASSESSMENT FOR YEAR 4

2. Give the student a collection of shapes and ask them to sort them into those with curved sides and those with straight sides. Then ask them to sort those with straight sides according to their number of sides. ☐

3. Ask the student to make a pattern by reflecting or translating a shape ☐



4. Show the student a pattern or shapes that have symmetry and ask them to show where the line of symmetry is



5. Ask the students questions such as
   - Which is further from here, the mango tree or the principal's office?
   - Which is closer to here, the preschool playground or the principal's office?
   - Who is standing beside Teina?

   >2/3 ☐

6. Ask the student to turn an object eg chair clockwise and then anti-clockwise ☐

ASSESSMENT FOR YEAR 5

NUMBER UNIT 1

N 2.1 U 1 Identify the numerals in the range 0- 1000
N 2.1 U 2 Write the numerals in the range 0- 1000
N 2.1 U 5 Say the number 1, or 10 more or less than a given number up to 1000

- Show the student numeral cards for eg 569, 738 and 927 and ask them what they are >2/3 ☐

  Ask the students to write the numerals for eg 358, 589, 831 >2/3 ☐

- Ask the student what is the number

  - one less and one more than each of the above numbers
    ten less and ten more than each of the above numbers >4/6 ☐

MEASUREMENT

M 2.1 U 1 Use rulers and other equipment to find the length of objects and record in mm
M 2.1 L 2 Use simple scales to find the mass of objects.
M 2.2 U 1 Use notes & coins to model transactions up to $100 and giving change
M 2.2 U 2 Find the total cost of up to 3 items.
M 2.3 L 2 Be able to read the hours, half hours & quarter hours of analogue time.
M 2.3 L 3 To know the hours of the day, seasons & months of the year.

1. Ask the student to use a ruler to measure 3 objects, and to give their answer in mm. should be accurate to 2mm. >2/3 ☐

2. Ask the student to use scales (eg kitchen scales) to weigh 3 objects, and to give their answer accurate to 1 unit on the scales >2/3 ☐

- This activity assesses both M 2.2 U 1 and M 2.2 U 2.

  Set up a "shop" with various goods with prices labeled on them. eg shirt, shorts, DVD etc. Give the student a list of 2-3 items to buy and let them use "play money" to buy them. Ask another student to act as the shopkeeper and give change. ☐ ☐

ASSESSMENT FOR YEAR 5

4. Show the student an analogue clock with various times, including half and quarter hours and ask them what time they show >4/5 ☐

5. Ask the student (or give a written test)
   - what hour
     1. they come to school
     2. go home from school
     3. go to bed
   - what season is
     1. Christmas
     2. Te Maeve Nui
     3. their birthday
   - what month
     1. Christmas
     2. Te Maeve Nui
     3. their birthday

   > 2/3 for each ☐

NUMBER UNIT 2

N 2.1 U 3 Order a numbers in the range 0-1000
N 2.1 U 4 Write a numeral up to 1000 in words
N 2.2 L 3 Know groupings within 10

Show the student 3 numeral cards eg 532, 502, and 765 and ask them to put them in order >2/3 ☐

2 Ask the student to write the numerals above in words >2/3

3. Show the student a 10s frame with eg 8 counters and ask them how many more would make 10. repeat 2 times. OR hold up 8 fingers and ask how many more to make 10. >2/3 ☐

NUMBER UNIT 3

N 2.2 U 1 Count a set of objects by any appropriate skip counting strategy
N 2.2 U 2 Compare the size of sets of objects that they have counted
N 2.4 L 3 Solve simple multiplication/ division problems by skip counting

1. Give the student a set of eg 20 objects and ask them to count them. They should use a suitable skip counting strategy (eg 2's or 5's) NOT one to one counting. ☐

2. Give the student 2 sets of objects and ask them to count them and then compare them to say which is bigger/ smaller ☐

3. Give the student a multiplication problem eg 7 x 5 and ask them to solve using skip counting, ie 5,10,15,20,25,30,35,
   Give the student a division problem eg 20 ÷ 5 and ask to solve using skip counting ie 15, 10, 5, 0 answer is 4 ☐

ASSESSMENT FOR YEAR 5

STATISTICS AND PROBABILITY

S 2.2 L 3 Compare in simple terms the ranges of different distributions
S 2.3 L 1 Rank events in order of the probability of their occurring
S 2.1 U 1 Use tally charts and frequency tables to record information
S 2.1 U 2 Use bar charts to illustrate their findings.

The students can complete the first 3 LO's as part of a statistics investigation.

1. The student will use a tally chart to collect their information and convert it into a frequency table ☐

2. The student will convert their frequency table to a bar graph ☐

3. The student be able to say what the range of their data is, ie the biggest value minus their smallest value. They should then compare their range with that of another student. ☐

4. Give the student various events and ask them to put them in order of probability.
   eg there will bean earthquake today, there will be rain today, they will go home after school today, ☐

NUMBER UNIT 4

N 2.4 U 1 Solve addition or subtraction problems using part-whole strategies such as doubling, using tidy numbers

1. Give the students various addition problems to solve.
   eg 17 + 5 by part whole is 17 + 3 + 2, or 15 + 5 + 2
   eg 12 + 13 by doubling is 12 doubled = 24, then + 1= 25. or 13 doubled =26, then – 1 = 25 ☐
   eg 48 + 17 by tidy numbers is 50 + 15 = 65

2. Give the student various subtraction problems to solve
   eg 23 – 5 by part whole is 23- 3 -2 = 18
   eg 33- 16 by doubling is 33 is 16 +16 + 1, so answer is 16 + 1 =17
   eg 43 – 19 using tidy numbers, is 43 -20 + 1 =33 + 1 = 34 ☐

ASSESSMENT FOR YEAR 5

NUMBER UNIT 5

N 2.3 L 1 Identify the symbols for ½,1/3, ¼ , 1/5
N 2.2 L 2 Compare the size of sets of even objects
N 2.2 L 3 Know groupings within 10
N 2.3 L 4 Find the fraction of a shape by folding or cutting

1. Give the student cards with the symbols for ½, 1/3, ¼ and 1/5 on them and ask them which is which. > 3/4 ☐

2. Give the student 2 sets of objects eg 8 counters and 10 counters and ask them which has more. The student should solve this by arranging in 2' s to compare ☐

8	10
OO	OO
OO	OO
OO	OO
OO	OO
	OO

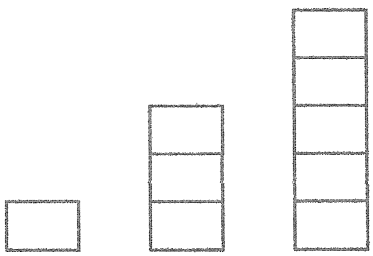
3. Give the student a piece of paper and ask them to find 1/3 of it by folding it. Give the student a diagram and ask them to find a 1/5 of it and colour it in. ☐

4. Show the student a 10s frame with eg 9 counters and ask them how many more would make 10. repeat 2 times. OR hold up 9 fingers and ask how many more to make 10. >2/3 ☐

ALGEBRA

A 2.2 L 1 Use a pictograph to model a simple linear relationship
A 2.4 L 1 Demonstrate different ways of using number sentences using <,>, and =
A 2.1 U 1 Continue a simple nonlinear relationship such 2, 4, 8 or 1,1,2,3,5,8…. etc
A 2.1.U 2 Use a rule in words to describe a simple non-linear relationship
A 2.1 U 4 Investigate patterns in everyday use such as calendars etc

1. Ask the student to draw a pictogram to show a linear relationship. eg 1, 3, 5 (to be linear the difference between each number must be the SAME in this case 2)



ASSESSMENT FOR YEAR 5

2. Ask the student to fill in the correct symbol (>, < , =) in various number sentences
   eg. 2 + 3 .... 5 + 1 , 3 x 4 .....5 x 2, 8 + 5 ..... 4 x 2

3. Give the student various non-linear relationships and ask them to give the next numbers. A non-linear relationship does NOT have the same difference between numbers.
   eg 2, 4, 8 , 16.....(multiplied by 2)
   eg 1,1,2,3,5....(Fibonacci, found by adding previous 2 numbers so the next one will be 5 + 3 =8, then 8 + 5 = 13)

4. Ask the student to describe in words the relationships above, eg " you multiply by 2 to get the next number"

5. Give the student a page from a calendar. Ask them to circle 4 touching numbers, and then describe their pattern. Eg 9 is 7 more than 2, and 10 is 7 more than 3 etc

2	3
9	10

NUMBER UNIT 6

N 2.5 L 1	Develop an understanding of the patterns in multiplication.
N 2.5 L 2	Use word problems to illustrate the concept of multiplying numbers
N 2.3 U 1	Identify any unit fraction with denominator <10
N 2.3 U 2	Find the ½,1/3,1/4,1/5 of a set of objects with or without materials using additive strategies

1. Give the student a hundreds chart (ie table with all numbers from 1 – 100) and ask them to put counters on all the 5 times tables. Then do it with different coloured counters for the 2 times table. Ask the student about the patterns made. ie all the 5 times are below 5 and 10, all the 2 times are below 2,4,6,8,10. Some eg 10, 20 have both coloured counters.

2. Ask the student to give a sentence to describe eg 4 x 3 =12. (4 children each ate 3 mangoes so altogether they ate 12 mangoes.)

3. Show the student a selection of unit fractions (numerator = 1) and ask them which is 1/8, 1/10 etc >3/4

   - Put 16 objects in front of child and ask them what ½ of them would be.If they need to they can use the objects to solve it, then ask what ¼ of them would be.

   - Take one object away so that there are 15, and ask them for 1/3 and 1/5 of them again see if they can do it first without using the objects. >3/4

ASSESSMENT FOR YEAR 5

GEOMETRY

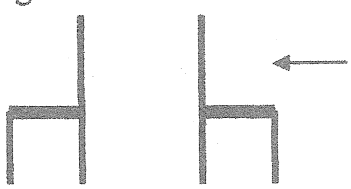
G 2.1 U 1	Use geometrical terms to classify circles, ovals, squares, rectangles, triangles, pentagons, hexagons, cubes, cylinders and spheres
G 2.2 L 1	Create a 3 dimensional object using familiar objects.
G 2.2 L 2	Use words such as higher, wider
G 2.2 L 3	Explain how the view from the opposite side of an object is different
G 2.3 U 1	Use reflection, translation and/ or rotation to create a pattern.
G 2.3 U 2	Be able to describe the symmetry (ies) of their pattern
G 2.4 L 3	Draw and discuss simple picture maps

1. Ask the student to classify these shapes, they could do it by 2 or 3 dimension (cylinders and spheres are 3 D) or by curved / straight sides ☐

2. Give the students some eg cardboard boxes and ask them to build an object ☐

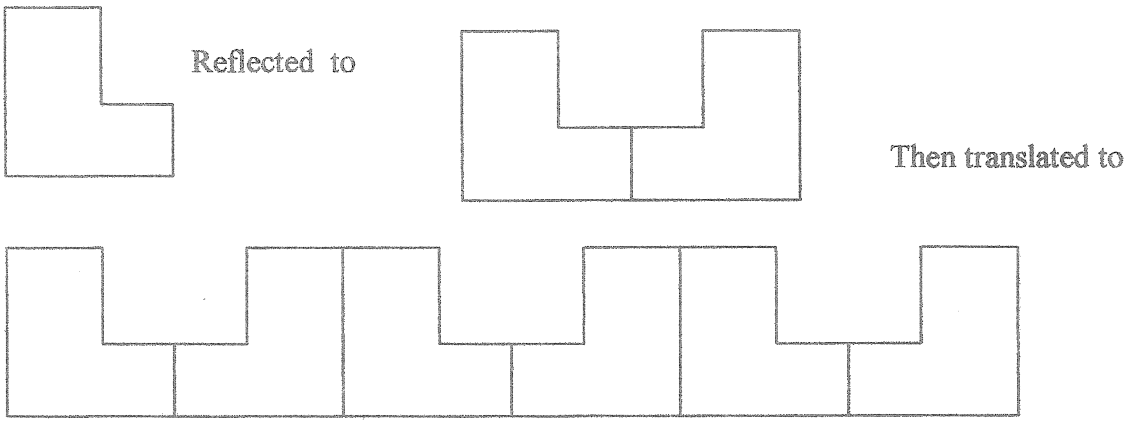
3. Ask the student
   - which is higher the school roof or mango tree,
   - which is wider the classroom door or the student's chair. ☐

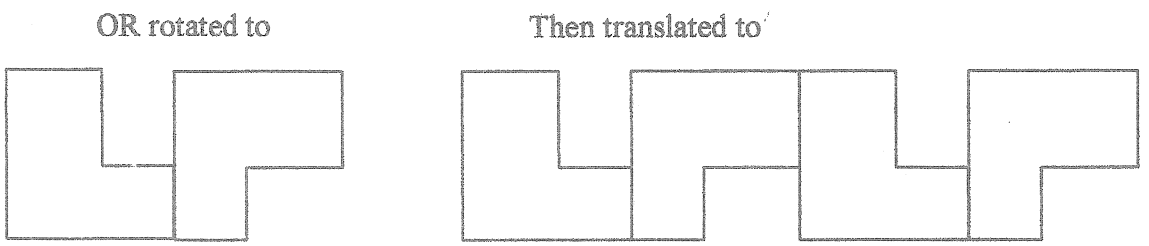
– Ask the student to describe eg a chair viewed from one side and how it is different when viewed from the opposite



☐

5. The student should use reflection, translation and rotation of a shape to make a pattern





- Students should be able to say if their pattern shows reflection and if so where, and rotation and if so around where. ☐

- Ask the student to draw a simple map of the classroom marking the teacher's desk, their own desk, the blackboard etc. OR to draw a map of the playground with tree etc. ☐

  Ask them to explain their map

ASSESSMENT FOR YEAR 6

NUMBER UNIT 1

N 2.1 U 1 Identify the numerals in the range 0- 1000
N 2.1 U 2 Write the numerals in the range 0- 1000
N 2.1 U 3 Order a numbers in the range 0-1000
N 2.1 U 4 Write a numeral up to 1000 in words
N 2.1 U 5 Say the number 1, or 10 more or less than a given number up to 1000

Show the student numeral cards for eg 624, 899, 901 and ask them what they are >2/3 ☐

2. Ask the students to write the numerals for eg 599, 702, 910 >2/3 ☐

3. Ask the student to put the 3 numerals above in order >2/3 ☐

4. Ask the student to write the 3 numerals above in words >2/3 ☐

5. Ask the student what is the number

   - one less and one more than each of the above numbers
   - ten less and ten more than each of the above numbers >4/6 ☐

MEASUREMENT

M 2.1 U 2 Use measuring equipment & water to find the volume of objects and record in ml & l.
M 2.1 U 3 Use scales to investigate the different masses of similarly sized objects and record using g & kg.
M 2.3 U 1 Be able to read analogue time
M 2.3 U 2 Be able to convert between seconds & minutes and between hours & minutes.
M 2.3 U 3 Be able to convert between days, weeks & months in a year.
M 2.3 U 4 Understand the effect of the earth & moon's movements on time (seasons, time zones, tides, day length).

1. Give the student a selection of containers, a measuring jug and water and ask them to find the volume of the containers. Accurate to half the gradation on jug. > 2/3 ☐

2. Give the students a selection of objects and scales and ask them to weigh them accurate to half the gradation on the scales. Some objects should be weighed in kg, and some in g. >2/3 ☐

ASSESSMENT FOR YEAR 6

3 Show the student an analogue clock (or diagram) and ask them what time is shown. They should include times such as " 10 past" "5 to" ☐

4. Ask the student to do some conversions eg

- 90 seconds = ? minutes
- 2 minutes = ? seconds
- 240 minutes = ? hours
- 3 hours = ? minutes >3/4 ☐

5. Ask the student to do some conversions eg

- 14 days = ? weeks
- 3 weeks = ? days
- 24 months = ? years >3/4 ☐

6. Ask the student to write an explanation using diagrams if they wish to explain

- seasons,
- time zones,
- tides,
- day length > 3/4 ☐

NUMBER UNIT 2

N 2.2 U 3 Know groupings with 10
N 2.4 U 1 Solve addition or subtraction problems using part-whole strategies such as doubling, using tidy numbers

1. Ask the student to answer 10 + 4, 10 + 7, 10 + 9 (should be knowledge, no strategy needed) >2/3 ☐

2. Give the students various addition problems to solve.
   eg 17 + 5 by part whole is 17 + 3 + 2, or 15 + 5 + 2
   eg 12 + 13 by doubling is 12 doubled = 24, then + 1= 25. or 13 doubled =26, then – 1 = 25 ☐
   eg 48 + 17 by tidy numbers is 50 + 15 = 65

   Give the student various subtraction problems to solve
   eg 23 – 5 by part whole is 23- 3 -2 = 18
   eg 33- 16 by doubling is 33 is 16 +16 + 1, so answer is 16 + 1 =17 ☐
   eg 43 – 19 using tidy numbers, is 43 -20 + 1 =33 + 1 = 34

ASSESSMENT FOR YEAR 6

NUMBER UNIT 3

N 2.2 U 1	Count a set of objects by any appropriate skip counting strategy
N 2.4 U 2	Solve multiplication or division problems using part-whole strategies such as doubling, using tidy numbers

1. Give the student a set of objects and ask them to count them using a skip counting strategy eg 3,6,9,12. Ask them to count again using a different skip counting strategy.

2. Give the student various multiplication problems to solve.
   eg 5 x 16 by doubling and halving is 10 x 8
   eg 4 x 9 using tidy numbers is 4 x 10 – 4x 1 ☐

   Give the student various division problems to solve
   eg 36 ÷ 4 by halving/ doubling is
   eg 36 ÷ 4 by tidy numbers is 40 ÷ 4 - 4÷4 = 10 – 1 =9 ☐

STATISTICS AND PROBABILITY

S 2.2 U 1	Discuss important features of graphs
S 2.2 U 2	Compare their sample with others' and comment on any similarities / differences.
S 2.2 U 3	Identify the most common/ popular value
S 2.3 U 1	Use materials eg dice find the outcomes of an experiment

1. The student should be able to identify the important features of graphs, eg the most common category, the least common category, the range, how many categories etc. ☐

2. The student should understand that a sample is a selection from a whole population and that samples can be different depending on how/ where collected. They should be able to compare samples. Eg my sample of students chosen from grade 6 are taller than my friends' sample which was chosen from grade 3. ☐

3. Ask the student find the most common value (MODE) in their information, this could be the most common way of coming to school, the most popular colour, or age group with most students in it. ☐

4. A dice can be used to demonstrate a real life situation. eg using a dice to find the numbers of boys/ girls in a family of 4 children. As there are 2 possibilities use the odd / even numbers on dice to reflect this. So, if you throw a dice and it is an odd number this represents a girl, and if an even number a boy. Throw the dice 4 times to represent the 4 children in the family. ☐

ASSESSMENT FOR YEAR 6

NUMBER UNIT 4

N 2.5 U 1 Understand that division is the opposite process to multiplication
N 2.5 U 2 Use word problems to illustrate the effect of multiplying and dividing numbers

1. Give the student a multiplication problem such as 6 x 7 = 42, and ask them to use the same numbers in a division problem (42 ÷ 6 =7 , or 42 ÷ 7 = 6) ☐

2. Ask the student to

   - give a word problem to illustrate multiplication, eg each packet has 10 biscuits, how many would there be in 5 packets?
   - give a word problem to illustrate division, eg I have 15 sweets to share evenly between 3 people how many does each person get ? ☐

NUMBER UNIT 5

N 2.3 U 1 Identify any unit fraction with denominator <10
N 2.3 U 2 Find the ½,1/3,1/4,1/5 of a set of objects with or without materials using additive strategies
N 2.3 U 3 Order any unit fraction
N 2.3 U 4 Identify the fraction that a shape has been divided into.

1. Show the student a selection of unit fractions (numerator = 1) an ask them which is 1/8, 1/10 etc >3/4 ☐

2. Put 15 objects in front of child and ask them what 1/3 of them would be. If they need to they can use the objects to solve it Then ask what 1/5 of them would be. See if they can do it without using the materials first. ☐

3. Give the student a selection of cards with unit fractions printed on them and ask them to put them in order from smallest to largest. Once they have done this check that the student knows which is the smallest. ☐

4. Show the student a selection of shaded-in shapes and ask them what fractions are shaded in. >2/3 ☐

ASSESSMENT FOR YEAR 6

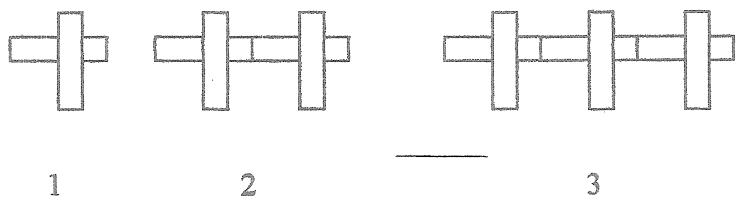
ALGEBRA

A 2.1 U 3 Use calculators to create and investigate patterns in numbers
A 2.2 U 1 Use a graph to model a simple relationship
A 2.3 U 1 Draw a graph of a familiar situation
A 2.3 U 2 Interpret graphs of familiar situations
A 2.4 U 1 Write number sentences using +, -, <, >, and =

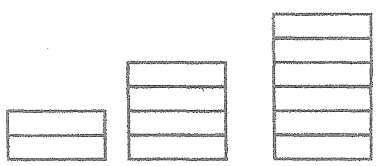
1. Ask the student to use a calculator to create a pattern. eg enter 3+2 and then keep pressing the constant key and this should keep adding 2 , 3,5,7,9,..or 1 x 2 and press constant key, 2,4,8,16.... Describe the pattern they have created

2. Ask the student to make a linear relationship using sticks or shapes and then use them to make a graph

eg



1 2 3



1 2 3

3. Ask the student to draw a graph of a familiar situation, their level of hunger during the day. The axes should be labeled and the line showing relationship should be continuous.

4. Give the student a graph of a familiar situation, or use another students graph from above and ask them to explain what the graph is showing.

5. Ask the student to write 3 number sentences using either + or -.
eg $4 + 3 = 8 - 1$, $9 + 6 > 11 + 2$

ASSESSMENT FOR YEAR 6

NUMBER UNIT 6

N 2.3 U 5 Find the fraction (>1) of a shape
N 2.3 U 6 Identify fractions 0-1 on a number line
N 2.4 U 2 Solve multiplication or division problems using part-whole strategies such as doubling ,using tidy numbers

1. Give the student a shape
   ask them to show 1 $\frac{1}{2}$

1

1 $\frac{1}{2}$

2. Give the student a 0 – 1 number line and ask them to show some fractions eg

   $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ on it

GEOMETRY

G 2.2 U 1 Create a 3 dimensional object using geometrical objects.
G 2.2 U 2 Use words such as side, corner and edge to describe 3 dimensional objects
G 2.2 U 3 Explain how the view of an object changes as you move around it
G 2.4 U 1 Use N, S, E, W and NE, SE, SW and NW to describe direction
G 2.4 U 2 Use distance to describe position
G 2.4 U 3 Draw and read simple maps using the 4 compass points.

1. Give the student some interlocking cubes and ask them to make a 3 dimensional object

2 Using EITHER their object from above or a cube ask them to show what is a side, a corner and an edge > 2/3

3 Choose an object such as a motorbike, or a piece of playground equipment, and ask the student what it will look like from the opposite side. Then ask them how it would look from all 4 sides.

4. Tell the student which direction is north from eg a tree in the playground. Then ask what direction other places eg principal's office, preschool playground are from that tree.

ASSESSMENT FOR YEAR 6

5. Using the same activity as above, ask the student to describe the object's distance from the tree.

6. Ask the student to draw a map of the school grounds or playground and mark on the compass points and various objects. ☐

STUDENT PROFILE YEAR 1 MATHEMATICS

Name.....

Number

Learning Outcomes	Achieved
N 1.1 L 1 Identify all of the numerals in the range 0-20	
N 1.1 L 2 Write the numerals in the range 0-20	
N 1.1 L 3 Order numbers in the range 0-20	
N 1.1 L 4 Say the number before or after a given number in the range 0-20	
N 1.1 L 5 Say the forwards and backwards number word sequences in the range 0-20 with understanding	
N 1.2 L 1 Use one to one counting to form a set of up to 20 objects	
N 1.2 L 2 Count a set of up to 20 objects	
N 1.2 L 3 Know groupings within 5	
N 1.3 L 1 Recognize the symbols for half and quarter.	
N 1.3 L 2 Find halves and quarters of a set of objects of up to 20 objects by equal sharing.	
N 1.3 L 3 Find halves and quarters of a shape by folding or drawing	
N 1.4 L 1 Solve simple addition problems to 20 by counting all the objects	
N 1.4 L 2 Solve simple subtraction problems from 20 by counting all the objects	
N 1.5 L 1 Know that adding whole numbers increases a value	
N 1.5 L 2 Know that subtracting whole numbers decreases a value	
N 1.5 L 3 Use materials or pictures to illustrate simple addition or subtraction problems	

Measurement

M 1.1 L1 Measure lengths by counting non standard units using body measurements e.g. handspans, feet.	
M 1.2 L 1 Compare lengths using appropriate units & language e.g. wider	
M 1.4 L 1 Describe time using everyday language e.g. bed time, lunch time, home time, days of the week & before & after.	

STATISTICS AND PROBABILITY

S 1.1 L 1 Choose a set of objects eg leaves and sort according to a characteristic	
S 1.1 L 2 Display their sorted objects in an organized way	
S 1.1 L 3 Describe aspects of their collection	

ALGEBRA

A1.1 L 1 Use sticks or other materials to make simple patterns	
A1.1 L 2 Describe their pattern using words such as "more than" or "less than"	

GEOMETRY

G 1.1 U 1 Name circles, squares triangles, pentagons, hexagons and ovals	
G 1.1 U 2 Sort shapes into circles, squares, triangles, pentagons and hexagons	
G 1.1 U 3 Use the words straight, curved and pointed to describe shapes	
G 1.3 L 1 Use the words on, above, under and between to describe the relative position of objects.	
G 1.3 L 2 Place familiar objects on, above, under and between other objects	
G 1.3 L 3 Follow part of a sequence of instructions relative to their position	

STUDENT PROFILE YEAR 2 MATHEMATICS

Name.....

Number

Learning Outcomes	Achieved
N 1.1 L 1 Identify all of the numerals in the range 0-20	
N 1.1 L 2 Write the numerals in the range 0-20	
N 1.1 L 3 Order numbers in the range 0-20	
N 1.1 L 4 Say the number before or after a given number in the range 0-20	
N 1.1 L 5 Say the forwards and backwards number word sequences in the range 0-20 with understanding	
N 1.1 U 1 Identify the numerals in the range 0-50	
N 1.1 U 2 Write the numerals in the range 0-50	
N 1.1 U 3 Order numbers in the range 0	
N 1.1 U 4 Name the number before or after a given number in the range 0-50	
N 1.1 U 5 Say the forwards and backwards number word sequences in the range 0-50 with understanding	
N 1.2 U 1 Use any counting strategy to form a set of up to 50 objects.	
N 1.2 U 2 Count a set of up to 50 objects	
N 1.2 U 3 Know groupings with 5	
N 1.3 L 1 Recognize the symbols for half and quarter.	
N 1.3 L 2 Find halves and quarters of a set of objects of up to 20 objects by equal sharing.	
N 1.3 L 3 Find halves and quarters of a shape by folding or drawing	
N 1.3 U 1 Recognize and write the symbols for half and quarter.	
N 1.3 U 2 Find halves and quarters of a set of objects to 50 using materials	
N 1.3 U 3 Find halves or quarters of a shape	
N 1.4 U 1 Solve simple addition problems to 50 by counting all the objects in their head (by imaging)	
N 1.4 U 2 Solve simple subtraction problems from 50 by counting all the objects in their head (by imaging)	

MEASUREMENT

M 1.1 U 1 Measure length, mass & volume using non body measurements e.g. string, books, cups.	
M 1.2 U 1 Compare mass & volume using appropriate units & language e.g. heavier, lighter, bigger, smaller.	
M 1.3 L 1 Identify coins used in the Cook Islands.	
M 1.3 L 2 Know the comparative value of coins used.	

STATISTICS AND PROBABILITY

S 1.1 U 1 Choose a set of objects eg leaves and sort according to a specified characteristic	
S 1.1 U 2 Display their sorted objects in a graphical form	
S 1.1 U 3 Describe comparative aspects of their collection	
S 1.2 L 1 Use words such as never, always, might in an appropriate context	

ALGEBRA

A1.1 L3 Demonstrate relationships such as " more than" or "less than" using materials	
A1.2 L1 Demonstrate simple operations involving =, "is the same as" using concrete materials, Eg 3 + 2 = 4 + 1	

GEOMETRY

G 1.2 L 1 Use a simple shape template and translation to make a pattern.	
G 1.2 L 2 Describe the pattern they have created	
G 1.3 U 1 Use the words behind, in front of, outside and inside to describe the relative position of objects.	
G 1.3 U 2 Place familiar objects behind, in front of, outside and inside other objects	
G 1.3 U 3 Follow a sequence of instructions relating to position and movement.	
G 1.4 L 1 Rotate themselves through half a turn	
G 1.4 L 2 Rotate an object through half a turn	

STUDENT PROFILE YEAR 3 MATHEMATICS

Name.....

NUMBER

Learning Outcomes	Achieved
N 1.1 U 1 Identify the numerals in the range 0-50	
N 1.1 U 2 Write the numerals in the range 0-50	
N 1.1 U 3 Order numbers in the range 0-50	
N 1.1 U 4 Name the number before or after a given number in the range 0-50	
N 1.1 U 5 Say the forwards and backwards number word sequences in the range 0-50 with understanding	
N 1.2 U 1 Use any counting strategy to form a set of up to 50 objects.	
N 1.2 U 2 Count a set of up to 50 objects	
N 1.3 U 1 Recognize and write the symbols for half and quarter.	
N 1.3 U 2 Find halves and quarters of a set of objects to 50 using materials	
N 1.3 U 3 Find halves or quarters of a shape	
N 1.4 U 1 Solve simple addition problems to 50 by counting all the objects in their head (by imaging)	
N 1.4 U 2 Solve simple subtraction problems from 50 by counting all the objects in their head (by imaging)	
N 1.5 U 1 Understand that subtraction is the opposite process to addition	
N 1.5 U 2 Show that subtraction can be done by "counting on"	
N 1.5 U 3 Use a word problem to illustrate simple addition and subtraction problems	

MEASUREMENT

M 1.3 U 1Know the value of coins & notes up to $20.	
M 1.3 U 2 Read straight forward prices.	
M 1.3 U 3 Know the value of common items e.g. packet of chips, can drink.	
M 1.4 U 1 Read clock times (to hours & half hours).	

STATISTICS AND PROBABILITY

S 1.2 U 1 Use words such as, impossible, possible, very likely or certain to describe familiar events.	
S 1.2 U 2 Rank familiar events in order of their probability of occurring.	

ALGEBRA

A1.1 U 1 Describe and continue simple repeating and sequential patterns	
A1.1 U 2 Illustrate and discuss relationships using pictures and arrows	
A 1.2 U 1 Using materials or stories write and explain number sentences using =	

GEOMETRY

G 1.1 U 1 Name circles, squares triangles, pentagons, hexagons and ovals	
G 1.1 U 2 Sort shapes into circles, squares, triangles, pentagons and hexagons	
G 1.1 U 3 Use the words straight, curved and pointed to describe shapes	
G 1.2 U 1 Make a template of a shape and use translation and/ or rotation to create a pattern	
G 1.4 U 1 Rotate themselves through a half or quarter turn and describe their change in view	
G 1.4 U 2 Rotate a shape or object through a half or quarter turn, and describe the change of view.	

STUDENT PROFILE YEAR 4 MATHEMATICS

Name.....

NUMBER

Learning Outcomes	Achieved
N 2.1 L 1 Identify all of the numerals in the range 0 - 100	
N 2.1 L 2 Write the numerals in the range 0- 100	
N 2.1 L 3 Order numbers in the range 0- 100	
N 2.1 L 4 Name the number before or after a given number in the range 0	
N 2.1 L 5 Say the forwards and backwards number word sequence in the range 0	
N 2.1 L 6 Write a numeral up to 100 in words	
N 2.2 L 1 Count a set of objects by skip counting in 2's or 5's.	
N 2.2 L 2 Compare the size of sets of even objects	
N 2.2 L 3 Know groupings within 10	
N 2.3 L 1 Identify the symbols for ½, 1/3, ¼, 1/5	
N 2.3 L 2 Find ½ , 1/3, ¼, 1/5 of a set of objects using materials	
N 2.3 L 3 Order the unit fractions ½, 1/3, ¼,1/5,	
N 2.3 L 4 Find the fraction of a shape by folding or cutting	
N 2.4 L 1 Solve addition problems by counting on from the larger number	
N 2.4 L 2 Solve subtraction problems by counting on	
N 2.5 L 1 Develop an understanding of the patterns in multiplication.	

MEASUREMENT

M 2.1 L 1 Use rulers to find the length of objects and record in cm or m.	
M 2.3 L 1 Be able to read digital time.	
M 2.2 L 1 Use notes & coins to "purchase" objects.	
M 2.2 L 2 Use different combinations of coins & notes to make an amount.	

STATISTICS AND PROBABILITY

S 2.1 L 1 Use tally charts to record information	
S 2.1 L 2 Use pictographs or bar charts to illustrate their findings.	
S 2.2 L 1 Discuss aspects of their graphs	
S 2.2 L 2 Understand that their collection represents a sample of the population	

ALGEBRA

A 2.1 L 1 Continue a simple linear relationship	
A 2.1 L 2 Use a rule in words to describe a linear relationship eg. 2,4,6,8.... eg 10,9,8,7....	
A 2.1 L 3 Explore patterns such as 3->1, 4->2, 5->3	
A 2.3 L 1 Interpret a graph of a familiar relationship such as hunger during the day,	

GEOMETRY

G 2.1 L 1 Describe circles, ovals, squares, rectangles, triangles, pentagons and hexagons.	
G 2.1 L 2 Use the terms curved, straight and the number of sides to classify shapes.	
G 2.3 L 1 Use reflection and/or translation of a shape to create a pattern.	
G 2.3 L 2 Be able to identify the symmetry of a pattern	
G 2.4 L 1 Use the words further, closer and beside to describe the relative positions of objects.	
G 2.4 L 2 Make clockwise and anticlockwise turns	

STUDENT PROFILE YEAR 5 MATHEMATICS

Name.....

NUMBER

Learning Outcomes	Achieved
N 2.1 L 5 Say the forwards and backwards number word sequence in the range 0	
N 2.1 U 3 Order a numbers in the range 0-1000	
N 2.1 U 4 Write a numeral up to 1000 in words	
N 2.1 U 5 Say the number 1, or 10 more or less than a given number up to 1000	
N 2.2 L 2 Compare the size of sets of even objects	
N 2.2 L 3 Know groupings within 10	
N 2.2 U 1 Count a set of objects by any appropriate skip counting strategy	
N 2.2 U 2 Compare the size of sets of objects that they have counted	
N 2.3 L 1 Identify the symbols for ½	
N 2.3 L 4 Find the fraction of a shape by folding or cutting	
N 2.3 U 1 Identify any unit fraction with denominator <10	
N 2.3 U 2 Find the ½,1/3,1/4,1/5 of a set of objects with or without materials using additive strategies	
N 2.4 L 3 Solve simple multiplication/ division problems by skip counting	
N 2.4 U 1 Solve addition or subtraction problems using part-whole strategies such as doubling, using tidy numbers	
N 2.5 L 1 Develop an understanding of the patterns in multiplication.	
N 2.5 L 2 Use word problems to illustrate the concept of multiplying numbers	

MEASUREMENT

M 2.1 U 1 Use rulers and other equipment to find the length of objects and record in mm	
M 2.1 L 2 Use simple scales to find the mass of objects.	
M 2.2 U 1 Use notes & coins to model transactions up to $100 and giving change	
M 2.2 U 2 Find the total cost of up to 3 items.	
M 2.3 L 2 Be able to read the hours, half hours & quarter hours of analogue time.	
M 2.3 L 3 To know the hours of the day, seasons & months of the year.	

STATISTICS AND PROBABILITY

S 2.2 L 3 Compare in simple terms the ranges of different distributions	
S 2.3 L 1 Rank events in order of the probability of their occurring	
S 2.1 U 1 Use tally charts and frequency tables to record information	
S 2.1 U 2 Use bar charts to illustrate their findings.	

ALGEBRA

A 2.2 L 1 Use a pictograph to model a simple linear relationship	
A 2.4 L 1 Demonstrate different ways of using number sentences using <,>, and =	
A 2.1 U 1 Continue a simple nonlinear relationship such 2, 4, 8 or 1,2,3,5,8.... etc	
A 2.1.U 2 Use a rule in words to describe a simple non-linear relationship	
A 2.1 U 4 Investigate patterns in everyday use such as calendars etc	

GEOMETRY

G 2.1 U 1 Use geometrical terms to classify circles	
G 2.2 L 1 Create a 3 dimensional object using familiar objects.	
G 2.2 L 2 Use words such as higher, wider	
G 2.2 L 3 Explain how the view from the opposite side of an object is different	
G 2.3 U 1 Use reflection, translation and/ or rotation to create a pattern.	
G 2.3 U 2 Be able to describe the symmetry (ies) of their pattern	
G 2.4 L 3 Draw and discuss simple picture maps	

STUDENT PROFILE YEAR 6 MATHEMATICS

Name.....

NUMBER

Learning Outcomes	Achieved
N 2.1 U 1 Identify the numerals in the range 0- 1000	
N 2.1 U 2 Write the numerals in the range 0- 1000	
N 2.1 U 3 Order a numbers in the range 0-1000	
N 2.1 U 4 Write a numeral up to 1000 in words	
N 2.1 U 5 Say the number 1, or 10 more or less than a given number up to 1000	
N 2.2 U 1 Count a set of objects by any appropriate skip counting strategy	
N 2.2 U 3 Know groupings with 10	
N 2.3 U 1 Identify any unit fraction with denominator <10	
N 2.3 U 2 Find the ½,1/3,1/4,1/5 of a set of objects with or without materials using additive strategies	
N 2.3 U 3 Order any unit fraction	
N 2.3 U 4 Identify the fraction that a shape has been divided into.	
N 2.3 U 5 Find the fraction (>1) of a shape	
N 2.3 U 6 Identify fractions 0-1 on a number line	
N 2.4 U 1 Solve addition or subtraction problems using part-whole strategies such as doubling, using tidy numbers	
N 2.4 U 2 Solve multiplication or division problems using part-whole strategies such as doubling, using tidy numbers	
N 2.5 U 1 Understand that division is the opposite process to multiplication	
N 2.5 U 2 Use word problems to illustrate the effect of multiplying and dividing numbers	

MEASUREMENT

M 2.1 U 2 Use measuring equipment & water to find the volume of objects and record in ml & l.	
M 2.1 U 3 Use scales to investigate the different masses of similarly sized objects and record using g & kg.	
M 2.3 U 1 Be able to read analogue time	
M 2.3 U 2 Be able to convert between seconds & minutes and between hours & minutes.	
M 2.3 U 3 Be able to convert between days, weeks & months in a year.	
M 2.3 U 4 Understand the effect of the earth & moon's movements on time (seasons, time zones, tides, day length).	

STATISTICS AND PROBABILITY

S 2.2 U 1 Discuss important features of graphs	
S 2.2 U 2 Compare their sample with others' and comment on any similarities / differences.	
S 2.2 U 3 Identify the most common/ popular value	
S 2.3 U 1 Use materials eg dice find the outcomes of an experiment	

ALGEBRA

A 2.1 U 3 Use calculators to create and investigate patterns in numbers	
A 2.2 U 1 Use a graph to model a simple relationship	
A 2.3 U 1 Draw a graph of a familiar situation	
A 2.3 U 2 Interpret graphs of familiar situations	
A 2.4 U 1 Write number sentences using +, -, <, >, and =	

GEOMETRY

G 2.2 U 1 Create a 3 dimensional object using geometrical objects.	
G 2.2 U 2 Use words such as side, corner and edge to describe 3 dimensional objects	
G 2.2 U 3 Explain how the view of an object changes as you move around it	
G 2.4 U 1 Use N, S, E, W and NE, SE, SW and NW to describe direction	
G 2.4 U 2 Use distance to describe position	
G 2.4 U 3 Draw and read simple maps using the 4 compass points.	