**Sample Assessment Outline**

Mathematics

Preliminary Unit 3 and Unit 4

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# Sample assessment outline

# Mathematics – Preliminary

## Unit 3

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Assessment task** | **Notional  due date** | **Unit outcomes** | | | | | | | | |
| Use place value to set  2 numbers  up to 100 in correct order | Use addition  and subtraction skills  effectively,  and recognise when answers are appropriate | Apply counting, addition and subtraction  skills to money as whole numbers up to $100 | Use multiplication and division  skills effectively, and recognise when answers are appropriate | Apply multiplication and division  skills to money  as whole numbers up to $50 | Choose the correct arithmetic operations on a calculator when completing a money calculation | Interpret and  use clocks, timetables and calendars to  help manage daily life | Use appropriate units to  describe length, mass and volume, and read scales correctly when measuring these  quantities | Identify the likelihood of different outcomes for familiar events, and list the possible outcomes in  such cases |
| **Task 1:** Family BBQ. You are to organise a BBQ for your family. | Week 4 | **✓** | **✓** |  |  |  |  |  |  |  |
| **Task 2:** Party time. You plan to invite 5 friends. | Week 7 | **✓** | **✓** | **✓** |  |  | **✓** |  |  |  |
| **Task 3:** Fun day out. Your class is to plan an excursion to Adventure World. | Week 11 |  |  | **✓** | **✓** | **✓** | **Locate ✓** |  |  |  |
| **Task 4:** Trip to the cinema.You plan to go to the movies with your friend. | Week 13 |  | **✓** |  |  |  |  | **✓** |  |  |
| **Task 5:** How heavy is it?  Use supermarket catalogues to find out the mass of 10 different items. | Week 14 | **✓** | **✓** |  |  |  |  |  | **✓** |  |
| **Task 6:** My daily activities. Use daily routines to predict what is likely to happen. | Week 16 |  |  |  |  |  |  |  |  | **✓** |

| **SAMPLE PLANNING CHECKLIST  Mathematics**  **Preliminary Unit 3**  (✓ = Unit content covered) | **Task 1** | **Task 2** | **Task 3** | **Task 4** | **Task 5** | **Task 6** |
| --- | --- | --- | --- | --- | --- | --- |
| **Whole number** | | | | | | |
| Count collections by 1s, 2s, 5s and 10s to say how many, up to (or beyond) 50 items. | **✓** | **✓** |  |  |  |  |
| Identify and use the patterns in the number system to say number sequences forwards and backwards by 1s, 2s, 5s and 10s up to (or beyond) 50. | **✓** | **✓** |  |  |  |  |
| Use the patterns in the number systems to read and write numbers (as digits), up to (or beyond) 50. | **✓** | **✓** |  |  | **✓** |  |
| Connect the written numbers (as digits) with the appropriate collections. | **✓** | **✓** |  |  | **✓** |  |
| Use place value to understand the magnitude of numbers and to compare and order 2 or 3 numbers up to (or beyond) 50 | **✓** | **✓** |  |  | **✓** |  |
| **Addition and subtraction** | | | | | | |
| Use counting (by 1s, 2s, 5s and 10s) to solve everyday addition and subtraction problems involving small numbers, with a total up to (or beyond) 50. | **✓** | **✓** |  |  |  |  |
| Use materials and visualisation to learn, remember and recall basic addition facts:   * doubles * near doubles * combinations to 10 * the rest. | **✓** | **✓** | **✓** |  |  |  |
| Use basic facts and place value partitioning to solve everyday addition and subtraction problems involving small amounts of up to (or beyond) 50. | **✓** | **✓** | **✓** | **✓** |  |  |
| Read and/or write number sentences related to everyday addition and subtraction problems. |  | **✓** |  | **✓** |  |  |
| Input the +, - and = symbols on a calculator in the correct order to solve everyday addition and subtraction problems involving numbers up to (or beyond) 50. | **✓** | **✓** | **✓** |  |  |  |
| Decide whether to use addition or subtraction to solve everyday problems on a calculator involving ‘unfriendly’ numbers up to (or beyond) 50. | **✓** | **✓** |  |  |  |  |
| Use their understanding of the magnitude of numbers to decide whether an answer on a calculator is appropriate for the problem they have just solved. | **✓** | **✓** | **✓** |  |  |  |
| **Money** | | | | | | |
| Use the patterns in the number system to say the counting sequences of 2s, 5s, 10s and 20s up to (and beyond) 50. | **✓** | **✓** | **✓** |  |  |  |
| Use one-to-one correspondence to count collections of $1 coins by ones up to (or beyond) $50. |  | **✓** | **✓** |  |  |  |
| Use many-to-one correspondence to count collections of $1 coins by 2s, 5s and 10s up to (or beyond) $50. |  | **✓** | **✓** |  |  |  |
| Use many-to-one correspondence to count collections of:   * $10 notes * $2 coins * $5 notes * $20 notes * mixed collections. |  | **✓** | **✓** |  |  |  |
| Read, write and make simple whole dollar amounts up to $20, $50, $100. |  | **✓** | **✓** |  |  |  |
| Use place value understanding to compare and order amounts of money (whole dollars only). |  | **✓** | **✓** |  |  |  |
| Deposit and withdraw small amounts of money from a ‘bank’ and keep track of how much money is in the ‘bank’. |  | **✓** |  |  |  |  |
| Understand that it is helpful to save money for later use, such as paying for electricity or buying a TV. |  | **✓** |  |  |  |  |
| Use an ‘EFTPOS card’ to make a purchase of one or two items, knowing they have enough money, and how much money they have after the transaction. |  | **✓** |  |  |  |  |
| **Addition and subtraction of money** | | | | | | |
| Use counting (by 1s, 2s, 5s and 10s) to solve everyday addition and subtraction problems involving small amounts of whole dollars up to $50. |  | **✓** | **✓** |  |  |  |
| Use basic facts and place value partitioning to solve everyday addition problems involving amounts of whole dollars up to $50. |  | **✓** | **✓** |  |  |  |
| Make simple purchases and know how much change to expect from a $20 or $50 note, or using a debit card. |  | **✓** | **✓** |  |  |  |
| Read and/or write number sentences related to everyday addition and subtraction problems involving small amounts of whole dollars or cents. |  | **✓** | **✓** |  |  |  |
| Input the +, - and = symbols on a calculator in the correct order to solve everyday addition and subtraction problems involving whole dollars up to $50 or $100. |  | **✓** | **✓** |  |  |  |
| Decide whether to use addition or subtraction to solve everyday shopping problems on a calculator, involving whole dollars up to $50 or $100. |  | **✓** | **✓** |  |  |  |
| Use their understanding of the magnitude of numbers to decide whether an answer on a calculator is appropriate for the problem they have just solved. |  | **✓** | **✓** |  |  |  |
| **Multiplication and division** | | | | | | |
| Use skip counting to solve familiar equal group (multiplication and division) problems involving small whole numbers, such as 2, 4, 6, 8, up to 50 items. |  |  | **✓** |  |  |  |
| Use the + and – symbols to read and/or write number sentences related to equal group problems involving small whole numbers. |  |  | **✓** |  |  |  |
| Link the x symbol with the idea of repeated addition and the ÷ symbol with the idea of sharing equal groups. |  |  | **✓** |  |  |  |
| Use the x and ÷ symbols to read and/or write number sentences related to equal group problems involving small whole numbers; for example, write 2 x 6 = 12 to represent a story, such as, ‘There were 2 teams with 6 people in each. That makes 12 people altogether.’ |  |  | **✓** |  |  |  |
| Input the x, ÷ and = symbols on a calculator in the correct order to solve everyday equal group problems involving whole numbers up to 50. |  |  | **✓** |  |  |  |
| Decide whether to use multiplication or division to solve everyday equal group problems on a calculator involving whole numbers up to 50. |  |  | **✓** |  |  |  |
| Use their understanding of the magnitude of numbers to decide whether the answer on a calculator is appropriate for the problem they have just solved. |  |  | **✓** |  |  |  |
| **Multiplication and division of money** | | | | | | |
| Use skip counting to solve familiar equal group (multiplication and division) problems involving small amounts of whole dollars, such as $2, $4, $6, $8, up to $50. |  |  | **✓** |  |  |  |
| Make simple purchases of multiple items and know how much change to expect from a $20 or $50 note, or the balance on a debit card. |  |  | **✓** |  |  |  |
| Use the + and – symbols to read and/or write number sentences related to equal problems involving small amounts of whole dollars up to $50. |  |  | **✓** |  |  |  |
| Link the x symbol with the idea of repeated equal amounts of money, and the ÷ symbol with the idea of sharing out equal amounts of money. |  |  | **✓** |  |  |  |
| Use the x and ÷ symbols to read and/or write number sentences related to equal group money problems involving small amounts of whole dollars (up to $50); for example, write $20 ÷ $2 = $10 to represent a story, such as, ‘I had $20 and shared it equally with my brother. Now we both have $10 each.’ |  |  | **✓** |  |  |  |
| Input the x, ÷ and = symbols on a calculator in the correct order to solve everyday equal group problems involving whole dollars up to 50, 100 or 1000 (and beyond). |  |  | **✓** |  |  |  |
| Decide whether to use multiplication or division to solve everyday equal group problems on a calculator, involving whole dollars up to 50. |  |  | **✓** |  |  |  |
| Use their understanding of the magnitude of numbers to decide whether the answer on a calculator is appropriate for the problem they have just solved. |  |  | **✓** |  |  |  |
| **Time** | | | | | | |
| Read time to the quarter hour, and to five minute durations on an analogue clock. |  |  |  | **✓** |  |  |
| Add and subtract simple time measurements in order to calculate the total time needed to complete a task. |  |  |  | **✓** |  |  |
| Read and use straightforward timetables or schedules to work out when events start and finish. |  |  |  | **✓** |  |  |
| Estimate simple time durations; for example, it will take me 15 minutes to finish this task. |  |  |  | **✓** |  |  |
| **Measurement** | | | | | | |
| Use the words (and abbreviations) associated with standard units of length, mass and capacity measure; for example, metre (m), centimetre (cm), litre (L), millilitre (mL), kilograms (kg), and grams (g). |  |  |  |  | **✓** |  |
| Read and use simple whole number calibrated scales in practical contexts, such as cooking or building. Read and use common centimetre and metre measurements on rulers and tape measures, such as 20cm. Read and use common millilitre and litre measurements on measuring jugs, such as 250mL. Read and use common gram and kilogram measures on digital scales, such as 150g. |  |  |  |  | **✓** |  |
| Estimate how long or how heavy an object is, or how much a container holds, in familiar everyday contexts. |  |  |  |  | **✓** |  |
| **Chance and data** | | | | | | |
| Respond to and use the language of chance, such as likely, possible, impossible, will, won’t, might happen. |  |  |  |  |  | **✓** |
| Recognise that events are sometimes unpredictable and sometimes more predictable. |  |  |  |  |  | **✓** |
| Use daily sequences of familiar events to predict what might happen, or which of two events is more or less likely to happen. |  |  |  | **✓** |  | **✓** |
| Identify possible and impossible events in their daily lives. |  |  |  |  |  | **✓** |
| List possible outcomes of familiar events or activities. |  |  |  |  |  | **✓** |
| Recognise that repetition of chance events can produce different results. |  |  |  |  |  | **✓** |

# Sample assessment outline

# Mathematics – Preliminary

## Unit 4

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Assessment task** | **Notional  due date** | **Unit outcomes** | | | | | | | | |
| Use place  value to determine the magnitude of numbers | Use addition  and subtraction skills effectively, and recognise when answers are appropriate | Apply counting, addition and subtraction  skills to money  as whole numbers up to  $1000 | Use multiplication and division  skills effectively, and recognise when answers are appropriate | Apply multiplication and division  skills to money  as whole numbers up to  $1000 | Choose the correct arithmetic operations on a calculator when completing a money calculation | Collect data about familiar everyday  events and display this in graphs | Interpret  simple graphs related to familiar  everyday  events | Identify the likelihood of different outcomes for familiar events and list the possible outcomes  in such cases |
| **Task 1:** What is your lucky number? A whole class game. | Week 4 | **✓** | **✓** |  |  |  |  |  |  |  |
| **Task 2:** My pocket money. Make a budget of your monthly expenses and savings. | Week 9 |  | **✓** | **✓** |  | **✓** | **✓** |  |  |  |
| **Task 3:** A fundraiser. Plan a sausage sizzle fundraising event. | Week 14 |  | **✓** | **✓** | **✓** | **✓** | **✓** |  |  |  |
| **Task 4:** Birthday graphs.  Construct birthday column graphs to respresent your classmates’ birthdays and answer questions. | Week 16 |  |  |  |  |  |  | **✓** | **✓** | **✓** |

| **SAMPLE PLANNING CHECKLIST  Mathematics**  **Preliminary Unit 4**  (✓ = Unit content covered) | **Task 1** | **Task 2** | **Task 3** | **Task 4** |
| --- | --- | --- | --- | --- |
| **Using whole number** | | | | |
| Count collections (by 1s, 2s, 5s and 10s) to say how many up to 100 items (and beyond). | **✓** |  |  |  |
| Identify and use the patterns in the number systems to say number sequences forwards and backwards by 1s, 10s and 100s up to 100,  1000, 10 000 and beyond. | **✓** |  |  |  |
| Use the patterns in the number systems to read and write numbers (as digits) up to 100, 1000 and 10 000 (and beyond). | **✓** |  |  |  |
| Connect the written numbers (as digits) with the appropriate collections up to 100. | **✓** |  |  |  |
| Use place value to understand the magnitude of numbers and to compare and order two or three numbers up to 100, 1000, 10 000 (and beyond). | **✓** |  |  |  |
| **Using addition and subtraction** | | | | |
| Use efficient counting strategies, basic facts and place value partitioning to mentally solve everyday addition and subtraction problems involving totals up to 50. | **✓** | **✓** |  |  |
| Read and/or write number sentences related to everyday addition and subtraction problems. |  | **✓** |  |  |
| Input the +, - and = symbols on a calculator in the correct order to solve everyday addition and subtraction problems involving numbers up to 50, 100 or 1000 (and beyond). |  | **✓** |  |  |
| Decide whether to use addition or subtraction to solve everyday problems on a calculator, involving numbers up to 50, 100 or 1000 (and beyond). |  | **✓** |  |  |
| Use their understanding of the magnitude of numbers to decide whether an answer on a calculator is appropriate for the problem they have just solved. |  | **✓** |  |  |
| **Money** | | | | |
| Know that the decimal point separates whole dollars from cents, which are parts of dollars. | **✓** | **✓** | **✓** |  |
| Know that 100 cents makes a dollar. |  | **✓** | **✓** |  |
| Count collections of cent coins to make up dollar amounts   * collections of like coins * collections of mixed coins. |  | **✓** | **✓** |  |
| Count mixed collections of dollars and cents. |  | **✓** | **✓** |  |
| Read, write and make everyday amounts of dollars and cents; for example, $10.50, including amounts up to $1000 (and beyond). |  | **✓** |  |  |
| Use understanding of place value to compare and order amounts of money (involving dollars and cents), making decisions about which everyday items are best value for money. |  | **✓** | **✓** |  |
| Deposit and withdraw money into a bank account using an EFTPOS card. |  | **✓** |  |  |
| Understand the difference between a debit and a credit card and that there is a cost involved in using credit (fees and interest charged). |  |  |  |  |
| Read and make sense of itemised bank account details for a debit and/or credit card. |  |  |  |  |
| **Using addition and subtraction of money** | | | | |
| Use efficient counting strategies, basic facts and place value partitioning to solve everyday addition and subtraction problems involving combinations of dollars and cents up to $50. |  | **✓** | **✓** |  |
| Make simple purchases and know how much change to expect from a $100 note. |  |  | **✓** |  |
| Read and/or write number sentences related to everyday addition and subtraction problems involving combinations of dollars and cents and calculating the change. |  | **✓** | **✓** |  |
| Use a calculator to solve everyday addition and subtraction problems involving combinations of dollars and cents up to $50, $100 or $1000 (and beyond). |  | **✓** | **✓** |  |
| Decide whether to use addition or subtraction to solve everyday problems on a calculator, involving combinations of dollars and cents up to $50, $100 or $1000 (and beyond). |  | **✓** | **✓** |  |
| Use their understanding of the magnitude of numbers to decide whether an answer on a calculator is appropriate for the problem they have just solved. |  | **✓** | **✓** |  |
| Write and use a simple budget for everyday expenses, such as food and transport costs. |  | **✓** | **✓** |  |
| **Multiplication and division** | | | | |
| Use skip counting to solve familiar equal group problems involving small numbers, such as 10, 20, 30, up to 100 items. |  |  | **✓** |  |
| Link the x symbol with the idea of repeated addition and the ÷ symbol with the idea of sharing equal groups. |  |  | **✓** |  |
| Use the x and ÷ symbols to read and/or write number sentences related to equal group problems involving whole numbers. |  |  | **✓** |  |
| Use materials and visualisation to learn, remember and recall basic multiplication facts:   * x 1, x 2, x 0 * x 5, x 10 * x 4 and x 8 * x 3 and x 6 * x 7 * x 9. |  |  | **✓** |  |
| Use familiar basic facts, and extensions to basic facts, to solve everyday multiplication problems involving simple numbers. |  | **✓** | **✓** |  |
| Input the x, ÷ and = symbols on a calculator in the correct order to solve everyday equal group problems involving numbers up to 50, 100 or  1000 (and beyond). |  | **✓** | **✓** |  |
| Know that when two whole number quantities are multiplied, the result is a bigger quantity. |  |  | **✓** |  |
| Know that when a whole number quantity is divided by a whole number, the result is a smaller quantity. |  |  | **✓** |  |
| Decide whether to use multiplication or division to solve every day equal group problems on a calculator, involving numbers up to 50, 100 or 1000 (and beyond). |  | **✓** | **✓** |  |
| Use their understanding of the magnitude of numbers to decide whether the answer on a calculator is appropriate for the problem they have just solved. |  | **✓** | **✓** |  |
| **Multiplication and division of money** | | | | |
| Use skip counting to solve familiar equal group problems involving small amounts of whole dollars, such as $10, $20, $30, $40 to $100. |  |  | **✓** |  |
| Use familiar basic facts and extensions to basic facts to solve everyday multiplication problems involving money. |  |  | **✓** |  |
| Make simple purchases of multiple items and know how much change to expect from a $100 note, or the balance on a debit card, using a calculator if required. |  |  | **✓** |  |
| Use the x and ÷ symbols to read and/or write number sentences related to simple equal group money problems involving combinations of dollars and cents. |  | **✓** | **✓** |  |
| Input the x, ÷ and = symbols on a calculator in the correct order to solve everyday equal group problems involving familiar combinations of dollars and cents up to 50, 100 or 1000 (and beyond). |  | **✓** | **✓** |  |
| Decide whether to use multiplication or division to solve everyday equal group problems on a calculator, involving familiar combinations of dollars and cents up to 50, 100 or 1000 (and beyond). |  |  | **✓** |  |
| Use their understanding of the magnitude of numbers to decide whether the answer on a calculator is appropriate for the problem they have just solved. |  | **✓** | **✓** |  |
| **Chance and data** | | | | |
| Collect simple data about familiar everyday contexts. |  |  |  | **✓** |
| Sort, classify and organise simple data under suitable headings. |  |  |  | **✓** |
| Read and interpret simple tallies, lists or tables related to familiar contexts. |  |  |  | **✓** |
| Create simple block or pictographs with a one-to-one or many-to-one correspondence between data and symbols, using appropriate labels and titles. |  |  |  | **✓** |
| Read and interpret simple block graphs and pictographs related to familiar contexts to say which category has most/more, least. |  |  |  | **✓** |
| Draw simple column graphs related to familiar contexts (with axis provided), using appropriate labels and titles. |  |  |  | **✓** |
| Read and interpret simple column graphs related to familiar contexts. |  |  |  | **✓** |
| Compare and order categories within column graphs to say which has most/more, least, and use addition or subtraction to say by how much. |  |  |  | **✓** |