



SAMPLE COURSE OUTLINE

MATHEMATICS FOUNDATION YEAR 11

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Sample course outline

Mathematics – Foundation Year 11

Unit 1 and Unit 2

Semester 1 – Unit 1

Week	Key teaching points
1–2	<p>Whole numbers and money</p> <p>Identify and describe the purpose of whole numbers, dollars and part dollars from real-life familiar examples found in various catalogues, advertisements, texts and other media. Include information in simple one-way and two-way tables and lists in everyday contexts. Recognise and use patterns in the number system and use place value to understand the meaning and magnitude of whole numbers into the millions, dollars and part dollars and simple negative numbers that represent real-life situations.</p> <p>1.1.1–1.1.7, 1.5.1–1.5.3</p>
3–4	<p>Introduction to addition and subtraction</p> <p>Consider everyday situations which involve addition and subtraction and the difference between estimates or accurate answers. Understand and recall basic addition facts using combinations to ten, ten frames and doubles to add small numbers. Using mental strategies and informal jottings to extend basic facts.</p> <p>1.2.1, 1.2.2, 1.2.4–1.2.5</p>
5–6	<p>Addition of whole numbers and money</p> <p>Mental strategies and informal jottings for solving addition problems using grids, partitioning and number lines. Number sentences, choosing and using a suitable calculation strategy, checking answers are reasonable for the context.</p> <p>1.2.5, 1.2.7–1.2.9, 1.5.1–1.5.3</p>
7	<p>Using and extending basic subtraction facts</p> <p>Understand and recall basic subtraction facts. The relationship between addition and subtraction using part-part-whole thinking. Using combinations to ten, doubles and near doubles and commutativity. Extend basic subtraction facts.</p> <p>1.2.3–1.2.5</p>
8–9	<p>Strategies for subtracting whole numbers and money</p> <p>Mental strategies and informal jottings for solving subtraction problems using part-part-whole models, partitioning, number lines and inverse thinking. Number sentences, choosing and using a suitable calculation strategy, checking answers are reasonable for the context.</p> <p>1.2.3–1.2.5, 1.2.7–1.2.9</p>
10–11	<p>Choosing the method of calculation</p> <p>Choosing between mental calculation and calculator and addition and subtraction to solve everyday problems involving whole number and money. Rounding and estimation strategies.</p> <p>1.2.1–1.2.9, 1.5.3</p>

Week	Key teaching points
12	<p>Length, mass and capacity</p> <p>Identify and discuss situations which involve using length, mass and capacity measures. Determine whether an estimate or an accurate answer is needed in familiar situations. Choose appropriate measuring tools to solve everyday problems.</p> <p>1.3.1–1.3.3, 1.5.1–1.5.3</p>
13–14	<p>Use informal units to estimate, measure and compare the size of everyday things. Develop a sense of size of commonly used measures and use standard length, mass and capacity units. Standard units divided into sub-units. Decide which standard measure is appropriate to solve everyday problems involving length, mass and capacity. Use a variety of simple calibrated scales to measure and compare (whole numbers).</p> <p>1.3.1–1.3.11</p>
15	<p>Time</p> <p>Read, write and interpret commonly used expressions of time in various texts, calendars and timetables, and other media. Determine whether an estimate or an accurate answer is needed in everyday situations involving time. Use digital and analogue watches, clocks (12-hour time only) and stopwatches to measure time. Use addition and subtraction to solve simple elapsed time problems (one type of time unit).</p> <p>1.4.1–1.4.12, 1.5.1–1.5.3</p>
16	<p>Collect and record data from everyday situations in one and two-way tables. Construct vertical and horizontal column/bar graphs and line graphs (including frequency and measurement). Use simple scales and whole numbers. Determine whether interpretations are reasonable. Communicate information and conclusions.</p> <p>1.5.4–1.5.7</p>

Semester 2 – Unit 2

Week	Key teaching points
1–2	<p>Understanding fractions and decimals</p> <p>Identify and describe the purpose of fractions and decimals in various texts and media from everyday life and work. Read, write and count with fractions. Consider the meaning and magnitude of commonly used fractions. Compare and order fractions.</p> <p>2.1.1–2.1.4</p>
2	<p>Fractions for practical purposes</p> <p>Consider the link between unit fractions and division. Use readily visualised equivalent fractions to compare and order fractions by size.</p> <p>2.1.5, 2.1.6</p>
2–3	<p>Decimals</p> <p>Extend whole number place value to the right. Use place value to consider the meaning and magnitude of commonly used decimal numbers. Use patterns in the number system to read, write, count with and order familiar decimals in everyday contexts (money and measurements).</p> <p>2.1.7–2.1.9</p>
3	<p>Connecting fractions and decimals</p> <p>Recognise and make connections between commonly used fractions and decimals to name the same quantity in different ways. Determine and explain whether the magnitude of a fraction or decimal is reasonable in everyday contexts.</p> <p>2.1.10–2.1.12</p>
4–5	<p>Introduction to multiplication and division</p> <p>Consider everyday situations which involve multiplication and division and the difference between estimates or accurate answers. Understanding and recalling basic multiplication facts. Using mental strategies and informal jottings to extend basic facts.</p> <p>2.2.1, 2.2.2, 2.2.4–2.2.5</p>
6–7	<p>Multiplication of whole numbers and money</p> <p>Mental strategies and informal jottings for solving multiplication problems using arrays and partitioning. Number sentences, choosing and using a suitable calculation strategy, checking answers are reasonable for the context.</p> <p>2.2.5, 2.2.7, 2.2.9–2.2.10</p>
8	<p>Using and extending basic division facts</p> <p>Understanding and recalling basic division facts. The relationship between multiplication and division using part-part-whole thinking. Use factors to ten, doubles and commutativity. Extend basic division facts.</p> <p>2.2.3–2.2.5</p>
9	<p>Strategies for dividing whole numbers and money</p> <p>Mental strategies and informal jottings for solving division problems. Using inverse thinking. Number sentences, choosing and using a suitable calculation strategy, checking answers are reasonable for the context.</p> <p>2.2.3–2.2.5, 2.2.7–2.2.10</p>

Week	Key teaching points
10–11	<p>Choosing the method of calculation</p> <p>Choose between mental calculation and calculator and multiplication and division to solve everyday problems involving whole number and money. Rounding and estimation strategies.</p> <p>2.2.1–2.2.10</p>
12	<p>Metric relationships</p> <p>Identify and describe the purpose of commonly used metric units in everyday contexts. Use prefix names of measurements to work out the relationship with base units. Link decimal place value and prefix names. Use place value understanding to convert from one unit to another. Consider a wide variety of questions and communicate measurements using units appropriate to context.</p> <p>2.3.1–2.3.6</p>
13	<p>Perimeter</p> <p>Identify and describe the purpose of perimeter measures in everyday life and work. Determine whether an estimate or an accurate answer is needed in a range of everyday situations. Calculate perimeter by adding the length measurements and link this to the formula. Choose which perimeter unit is appropriate in context.</p> <p>2.4.1–2.4.3, 2.4.7, 2.4.10–2.4.12</p>
14	<p>Area and volume</p> <p>Identify and describe the purpose of area and volume measures in everyday life and work. Measure area (including irregular shapes) by counting squares and volume by counting cubes. Choose which area or volume unit is appropriate in context. Connect the idea of counting squares for area and cubes for volume with the formulae.</p> <p>2.4.4–2.4.8, 2.4.10–2.4.12</p>
15	<p>Estimating perimeter, area and volume</p> <p>Estimate perimeter, area and volume in practical situations using familiar standard units and rounding. Choose which perimeter area or volume unit is appropriate in context. Determine whether an answer is reasonable. Communicate solutions.</p> <p>2.4.9, 2.4.9–2.4.12</p>
16	<p>The probability of everyday events</p> <p>Identify and describe situations which involve chance in everyday life and work. Compare and describe the likelihood of everyday chance events.</p> <p>2.5.1–2.5.5</p>