Year 4 Mathematics

Achievement Standard

By the end of Year 4, students choose appropriate strategies for calculations involving multiplication and division. They recognise common equivalent fractions in familiar contexts and make connections between fraction and decimal notations up to two decimal places. Students solve simple purchasing problems. They identify and explain strategies for finding unknown quantities in number sentences. They describe number patterns resulting from multiplication. Students compare areas of regular and irregular shapes using informal units. They solve problems involving time duration. They interpret information contained in maps. Students identify dependent and independent events. They describe different methods for data collection and representation, and evaluate their effectiveness.

Students use the properties of odd and even numbers. They recall multiplication facts to 10 x 10 and related division facts. Students locate familiar fractions on a number line. They continue number sequences involving multiples of single digit numbers. Students use scaled instruments to measure temperatures, lengths, shapes and objects. They convert between units of time. Students create symmetrical shapes and patterns. They classify angles in relation to a right angle. Students list the probabilities of everyday events. They construct data displays from given or collected data.

Assessable Elements

An overall level of achievement in this subject is determined by the teacher's on-balance judgment of the evidence presented in students' summative assessment across the following strands:

- **Number and Algebra**
  Number and place value; Fractions and decimals; Money and financial mathematics; Patterns and algebra.

- **Measurement and Geography**
  Using units of measurement; Shape; Geometric reasoning; Location and transformation.

- **Statistics and probability**
  Chance; Data representation and interpretation.

Delivery (mode, time requirements, lessons)

Students have access to three 1 hour scheduled lessons each week. Lessons are delivered via our Learning Management System. Students are also expected to undertake independent study to complete tasks and assessment in accordance with the Work Rate Calendar.

Student Requirements

Computer, internet access, email, printer, scanner, headset with microphone, stationery, manipulative materials, calculator, whiteboard and whiteboard markers.

Year 4 Mathematics (Semester 1)

	Units, Learning Experiences and Summative Assessment
Semester 1 — **Term 1**	**Unit 1** **Number and place value** Make connections between representations of numbers, partition and combine numbers flexibly, recall multiplication facts, recall addition and subtraction facts, formulate, model and record authentic situations involving operations, compare large numbers, generalise from number properties and results of calculations, derive strategies for unfamiliar multiplication and division tasks. **Fractions and decimals** Communicate sequences of simple fractions. **Patterns and algebra** Use properties of numbers to continue patterns. **Using units of measurement** Use appropriate language to communicate times, compare time durations, use instruments to accurately measure lengths. **Chance** Compare dependent and independent events, describe probabilities of everyday events. **Data representation and interpretation** Collect and record data, communicate information using graphical displays, evaluate the appropriateness of different displays.
	Summative Assessment: • **Assessment Task 1**: Recalling and using multiplication and division facts • **Assessment Task 2**: Identifying and explaining chance events
Term 2	**Unit 2** **Number and place value** Recognise, read and represent five-digit numbers, identify and describe place value in five-digit numbers, partition numbers using standard and non-standard place value parts, compare and order five-digit numbers, identify odd and even numbers, make generalisations about the properties of odd and even numbers, make generalisations about adding, subtracting, multiplying and dividing odd and even numbers, recall 3s, 6s and 9s facts, solve multiplication and division problems, use informal recording methods and strategies for calculations, apply mental and written strategies to computation. **Fractions and decimals** Revisit and develop understanding of the proportion and relationships between fractions in the halves family and thirds family, count and represent fractions on number lines, represent fractions using a range of models, solve fraction problems from familiar contexts. **Money and financial mathematics** Read and represent money amounts, investigate change, round to five cents, explore strategies to calculate change, solve problems involving purchases and the calculation of change, explore Asian currency and calculate foreign currencies. **Shape** Explore properties of polygons and quadrilaterals, identify combined shapes, investigate properties of shapes within tangrams, create polygons and combined shapes using tangrams. **Location and transformation** Investigate the features on maps and plans, identify the need for legends, investigate the language of location, direction and movement, find locations using turns and everyday directional language, identify cardinal points of a compass, investigate compass directions on maps, investigate the purpose of scale, apply scale to maps and plans, explore mapping conventions, plan and plot routes on maps, explore appropriate units of measurement and calculate distances using scales. **Geometric reasoning** Identify angles, construct and label right angles, identify and construct angles not equal to a right angle, mark angles not equal to a right angle.
	Summative Assessment: • **Assessment Task 1**: Number • **Assessment Task 2**: Location, Location

Year 4 Mathematics (Semester 2)

		Units, Learning Experiences and Summative Assessment
Semester 2	**Term 3**	**Unit 3** **Fractions and decimals** Locate familiar fractions on a number line. Recognise common equivalent fractions in familiar contexts and make connections between fraction and decimal notations up to two decimal places. **Number and place value** Recall multiplication facts to 10 x 10 and related division facts. **Using units of measurement** Use scaled instruments to measure temperatures, lengths, shapes and objects. **Shape** Compare areas of regular and irregular shapes using informal units. **Location and transformation** Create symmetrical shapes and patterns. **Extending on fractions and decimals** (not assessed)
		Summative Assessment: • **Assessment Task 1**: Measure It Up • **Assessment Task 2**: Connecting decimals and fractions
	Term 4	**Unit 4** **Money and Financial mathematics** Solve simple purchasing problems. **Using units of measurement** Convert between units of time. **Data representation and interpretation** They describe different methods for data collection and representation, and evaluate their effectiveness. They construct data displays from given or collected data.
		Summative Assessment: • **Assessment Task 1**: Analysing data • **Assessment Task 2**: Solving purchasing and time problems

Disclaimer   All of the above information is accurate at the time of development.