

Cross Curriculum Priorities



General Capabilities



First Steps Links

SPACE

Represent Location

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.

Represent Shape

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.

Represent Transformation

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.

Reason Geometrically

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.

SPACE

Understand Units

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

Direct Measure

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.

Indirect Measure

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.

Estimate

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.

Year 2	Year 3	Year 4
<p>USING UNITS OF MEASUREMENT</p> <p>Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units [ACMMG037]</p> <ul style="list-style-type: none"> - comparing lengths using finger length, hand span or a piece of string <p>Compare masses of objects using balance scales [ACMMG038]</p> <ul style="list-style-type: none"> - using balance scales to determine whether the mass of different objects is more, less or about the same. <p>Tell time to the quarter-hour, using the language of 'past' and 'to' [ACMMG039]</p> <p>Name and order months and seasons [ACMMG040]</p> <p>Use a calendar to identify the date and determine the number of days in each month [ACMMG041]</p>	<p>USING UNITS OF MEASUREMENT</p> <p>Measure, order and compare objects using familiar metric units of length, mass and capacity [ACMMG061]</p> <ul style="list-style-type: none"> - recognising and using centimetres and metres, grams and kilograms, and millilitres and litres <p>Tell time to the minute and investigate the relationship between units of time [ACMMG062]</p> <ul style="list-style-type: none"> - recognising there are 60 minutes in an hour and 60 seconds in a minute 	<p>USING UNITS OF MEASUREMENT</p> <p>Use scaled instruments to measure and compare lengths, masses, capacities and temperatures [ACMMG084]</p> <ul style="list-style-type: none"> - Reading and interpreting the graduated scales on a range of measuring instruments to the nearest graduation. <p>Compare objects using familiar metric units of area and volume. [ACMMG290]</p> <ul style="list-style-type: none"> - Comparing areas using grid paper, volume using centicubes <p>Convert between units of time [ACMMG085]</p> <ul style="list-style-type: none"> - Identifying and using the correct operation for converting units of time. <p>Use am and pm notation and solve simple time problems [ACMMG086]</p> <ul style="list-style-type: none"> - Calculating the time spent at school during a normal day - Calculating the time required to travel between two locations - Using units hours, minutes and seconds. - Determining the arrival time given the departure time.
<p>SHAPE</p> <p>Describe and draw two-dimensional shapes, with and without digital technologies [ACMMG042]</p> <ul style="list-style-type: none"> - identifying key features of squares, rectangles, triangles, kites, rhombuses and circles, such as straight lines or curved lines, and counting the edges and corners <p>Describe the features of three-dimensional objects [ACMMG043]</p> <ul style="list-style-type: none"> - identifying geometric features such as the number of faces, corners or edges 	<p>SHAPE</p> <p>Make models of three-dimensional objects and describe key features [ACMMG063]</p> <ul style="list-style-type: none"> - exploring the creation of three-dimensional objects using origami, including prisms and pyramids 	<p>SHAPE</p> <p>Compare the areas of regular and irregular shapes by informal means [ACMMG087]</p> <ul style="list-style-type: none"> - Comparing areas using metric units, such as counting the number of square centimetres required to cover two areas by overlaying the areas with a grid of centimetre squares. <p>Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies [ACMMG088]</p> <ul style="list-style-type: none"> - Identifying common two-dimensional shapes that are part of a composite shape by recreating it from these shapes. - Creating two-dimensional shapes from written and verbal instructions.

Year 3 Achievement Target

By the end of Year 3, students recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication. They model and represent unit fractions. They represent money values in various ways. Students identify symmetry in the environment. They match positions on maps with given information. Students recognise angles in real situations. They interpret and compare data displays. Students count to and from 10 000. They classify numbers as either odd or even. They recall addition and multiplication facts for single digit numbers. Students correctly count out change from financial transactions. They continue number patterns involving addition and subtraction. Students use metric units for length, mass and capacity. They tell time to the nearest minute. Students make models of three-dimensional objects. Students conduct chance experiments and list possible outcomes. They carry out simple data investigations for categorical variables.

LOCATION AND TRANSFORMATION	LOCATION AND TRANSFORMATION	LOCATION AND TRANSFORMATION
<p>Interpret simple maps of familiar locations and identify the relative positions of key features [ACMMG044]</p> <p>Investigate the effect of one-step slides and flips with and without digital technologies [ACMMG045]</p> <p>Identify and describe half and quarter turns [ACMMG045]</p>	<p>Create and interpret simple grid maps to show position and pathways [ACMMG065]</p> <p>Identify symmetry in the environment [ACMMG066]</p>	<p>Use simple scales, legends and directions to interpret information contained in basic maps. [ACMMG090]</p> <p>Create symmetrical patterns, pictures and shapes with and without digital technologies. [ACMMG091]</p>
<p>GEOMETRIC REASONING</p>	<p>Identify angles as measures of turn and compare angle sizes in everyday situations [ACMMG064]</p>	<p>Compare angles and classify them as equal to, greater than or less than a right angle. [ACMMG089]</p>

PROFICIENCY STRANDS	
<p>Understanding</p> <p>Students build a robust knowledge of adaptable and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the 'why' and the 'how' of mathematics. Students build understanding when they connect related ideas, when they represent concepts in different ways, when they identify commonalities and differences between aspects of content, when they describe their thinking mathematically and when they interpret mathematical information.</p>	<p>Problem Solving</p> <p>Students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively. Students formulate and solve problems when they use mathematics to represent unfamiliar or meaningful situations, when they design investigations and plan their approaches, when they apply their existing strategies to seek solutions, and when they verify that their answers are reasonable.</p>
<p>Fluency</p> <p>Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and appropriately, and recalling factual knowledge and concepts readily. Students are fluent when they calculate answers efficiently, when they recognise robust ways of answering questions, when they choose appropriate methods and approximations, when they recall definitions and regularly use facts, and when they can manipulate expressions and equations to find solutions.</p>	<p>Reasoning</p> <p>Students develop an increasingly sophisticated capacity for logical thought and actions, such as analysing, proving, evaluating, explaining, inferring, justifying and generalising. Students are reasoning mathematically when they explain their thinking, when they deduce and justify strategies used and conclusions reached, when they adapt the known to the unknown, when they transfer learning from one context to another, when they prove that something is true or false and when they compare and contrast related ideas and explain their choices.</p>