

The Australian Curriculum Mathematics

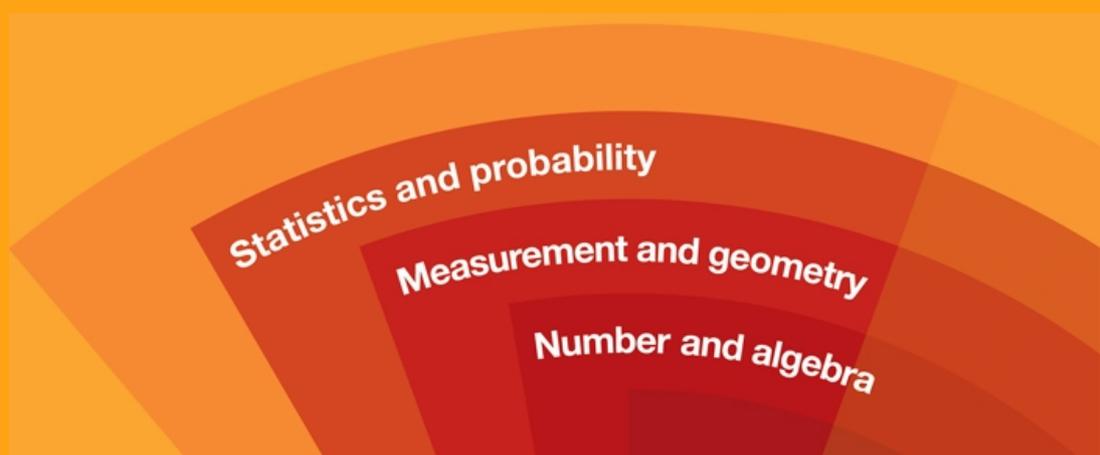




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Year 5

The proficiency strands **Understanding, Fluency, Problem Solving and Reasoning** are an integral part of mathematics content across the three content strands: **Number and Algebra, Measurement and Geometry, and Statistics and Probability**. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics.

At this year level:

Understanding includes making connections between representations of numbers, using fractions to represent probabilities, comparing and ordering fractions and decimals and representing them in various ways, describing transformations and identifying line and rotational symmetry

Fluency includes choosing appropriate units of measurement for calculation of perimeter and area, using estimation to check the reasonableness of answers to calculations and using instruments to measure angles

Problem Solving includes formulating and solving authentic problems using whole numbers and measurements and creating financial plans

Reasoning includes investigating strategies to perform calculations efficiently, continuing patterns involving fractions and decimals, interpreting results of chance experiments, posing appropriate questions for data investigations and interpreting data sets

Number and Algebra	Measurement and Geometry	Statistics and Probability
Number and place value	Using units of measurement	Chance
<p>Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098)</p> 	<p>Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)</p> 	<p>List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116)</p> 
<p>Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099)</p> 	<p>Calculate the perimeter and area of rectangles using familiar metric units (ACMMG109)</p> 	<p>Recognise that probabilities range from 0 to 1 (ACMSP117)</p> 

<p>Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100)</p> 	<p>Compare 12- and 24-hour time systems and convert between them (ACMMG110)</p> 	<p>Data representation and interpretation</p> <p>Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)</p> 
<p>Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101)</p> 	<p>Shape</p> <p>Connect three-dimensional objects with their nets and other two-dimensional representations (ACMMG111)</p> 	<p>Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)</p> 
<p>Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291)</p> 	<p>Location and transformation</p> <p>Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMMG113)</p> 	<p>Describe and interpret different data sets in context (ACMSP120)</p> 
<p>Fractions and decimals</p> <p>Compare and order common unit fractions and locate and represent them on a number line (ACMNA102)</p> 	<p>Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114)</p> 	
<p>Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103)</p> 	<p>Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115)</p> 	
<p>Recognise that the place value system can be extended beyond hundredths (ACMNA104)</p> 	<p>Geometric reasoning</p> <p>Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)</p>	

Compare, order and represent
decimals (ACMNA105)

Money and financial mathematics

Create simple financial plans
(ACMNA106)



Patterns and algebra

Describe, continue and create
patterns with fractions, decimals
and whole numbers resulting from
addition and subtraction
(ACMNA107)



Use equivalent number sentences
involving multiplication and division
to find unknown quantities
(ACMNA121)

