

Organising elements

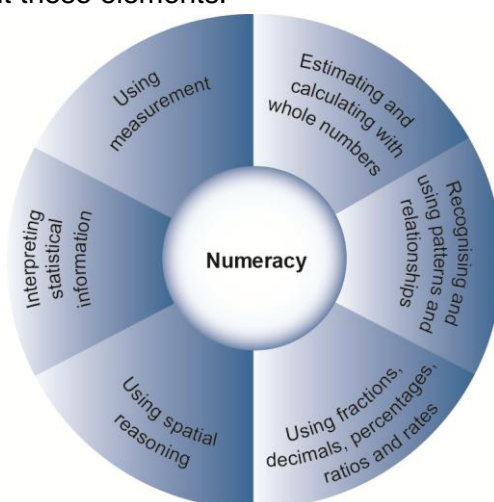
The Numeracy learning continuum is organised into six interrelated elements:

- Estimating and calculating with whole numbers
- Recognising and using patterns and relationships
- Using fractions, decimals, percentages, ratios and rates
- Using spatial reasoning
- Interpreting statistical information
- Using measurement

These elements are drawn from the strands of the Australian Curriculum: Mathematics as shown in the table below:

Numeracy Continuum	Australian Curriculum: Mathematics
Estimating and calculating with whole numbers	Number and Algebra Measurement and Geometry
Recognising and using patterns and relationships	Number and Algebra Statistics and Probability
Using fractions, decimals, percentages, ratios and rates	Number and Algebra Measurement and Geometry
Using spatial reasoning	Measurement and Geometry
Interpreting statistical information	Statistics and Probability
Using measurement	Measurement and Geometry

The diagram below sets out these elements.



Organising elements for Numeracy

Estimating and calculating with whole numbers

This element involves students using numbers for different purposes. Students apply skills in estimating and calculating with whole numbers to solve and model everyday problems in a wide range of authentic contexts using efficient mental, written and digital strategies. They identify situations where money is used and apply their knowledge of the value of money to purchasing, budgeting and justifying the use of money. In developing and acting with numeracy, students:

- understand and use numbers in context
- estimate and calculate
- use money.

Recognising and using patterns and relationships

This element involves students identifying trends and describing and using a wide range of rules and relationships to continue and predict patterns. Students apply their understanding of patterns and relationships when solving problems in authentic contexts.

Using fractions, decimals, percentages, ratios and rates

This element involves students developing an understanding of the meaning of fractions and decimals, their representations as ratios, rates and percentages, and how they can be applied in real-life situations. Students visualise, order and describe shapes and objects using their proportions and the relationships of ratios, rates and percentages to solve problems in authentic contexts. In developing and acting with numeracy, students:

- interpret proportional reasoning
- apply proportional reasoning.

Using spatial reasoning

This element involves students in making sense of the space around them. Students visualise, identify and sort shapes and objects, describing their key features in the environment. They use symmetry, shapes and angles to solve problems in authentic contexts and interpret maps and diagrams, using scales, legends and directional language to identify and describe routes and locations. In developing and acting with numeracy, students:

- visualise 2D shapes and 3D objects
- interpret maps and diagrams.

Interpreting statistical information

This element involves students gaining familiarity with the way statistical information is represented through solving problems in authentic contexts that involve collecting, recording, displaying, comparing and evaluating the effectiveness of data displays of various types. Students use appropriate language and numerical representations when explaining the outcomes of chance events. In developing and acting with numeracy, students:

- interpret data displays
- interpret chance events.

Using measurement

This element involves students learning about measurement of length, area, volume, capacity, time and mass. Students estimate, measure, compare and calculate using metric units when solving problems in authentic contexts. They read clocks and convert between time systems, identify and sequence dates and events using a calendar and use timetables for a variety of purposes. In developing and acting with numeracy, students:

- estimate and measure with metric units
- operate with clocks, calendars and timetables.