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School Curriculum
and Standards
Authority

The Authority

Kindergarten to Year 10

Years 11 and 12

Student

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Year 7 SyllabusTest

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Year Level Description

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- ☒ Year level descriptors
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Year Levels

- ☒ Select All

Strands

- ☒ Select All
- ☒ Statistics and Probability
- ☒ Measurement and Geometry
- ☒ Number and Algebra

General Capabilities

- ☒ Select All
- ☒ Literacy
- ☒ Numeracy
- ☒ Information and Communication Technology (ICT) capability

Year 7 Syllab

Year Level Descri

The proficiency strands of **reasoning** are an important part of the mathematics curriculum. The strands are: number and algebra, measurement and geometry, and statistics and probability. The proficiency strands provide the language for describing mathematical concepts and processes in mathematics. The strands are the proficiencies.

At this year level:

- **understanding** includes understanding numbers, recognising patterns, ratios, plotting points, transversal cross sections, numbers to algebra
- **fluency** includes fluency with decimals in various contexts, tendency and calculation
- **problem-solving** includes problem-solving with numbers and measurement, symmetry, calculation, chance experiments
- **reasoning** includes reasoning with geometric facts, triangles, ratio and interpretation

- ✔ Critical and creative thinking
- ✔ Personal and social capability
- ✔ Ethical understanding
- ✔ Intercultural understanding

Number and Algebra

NUMBER AND PLACE VALUE

Investigate index notation and represent whole numbers as products of powers of prime numbers
([ACMNA149](#))

 Numeracy

Investigate and use square roots of perfect square numbers
([ACMNA150](#))

 Numeracy

Apply the associative, commutative and distributive laws to mental and written computation
([ACMNA151](#))

 Numeracy

Compare, order, and subtract integers
([ACMNA280](#))

 Numeracy

REAL NUMBERS

Compare fractions and their equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line ([ACMNA280](#))


 Literacy

 Numeracy

Solve problems involving addition and subtraction of fractions, including those with unrelated denominators
([ACMNA153](#))

 Literacy

 Numeracy


 Critical and creative thinking

Multiply and divide

fractions and decimals
using efficient written
strategies and digital
technologies

[\(ACMNA154\)](#)


 Numeracy

 Information and
Communication Technology
(ICT) capability

Express one quantity
as a fraction of another
with and without the
aid of digital technology

[\(ACMNA155\)](#)

 Numeracy

 Information and
Communication Technology
(ICT) capability

Round decimals to
a specified number of
decimal places


[\(ACMNA156\)](#)

 Numeracy

Connect fractions,
decimals and


percentages and calculate simple conversions
([ACMNA157](#))

 Numeracy

 Information and Communication Technology (ICT) capability

Find percentages of quantities and express one quantity as a percentage of another with and without digital technologies
([ACMNA158](#))

 Numeracy

 Information and Communication Technology (ICT) capability

Recognise and solve problems involving simple ratios
([ACMNA173](#))

 Literacy

 Numeracy

 Critical and creative thinking


thinking


MONEY AND FINANCIAL MATHEMATICS

Investigate and calculate 'best buys', with and without digital technologies
[\(ACMNA174\)](#)

 Literacy


 Numeracy

 Information and Communication Technology (ICT) capability

 Critical and creative thinking

PATTERNS AND ALGEBRA


Introduce the concept of variables as a way of representing numbers using letters
[\(ACMNA175\)](#)

 Critical and creative thinking

Create algebraic

expressions and evaluate them by substituting a given value for each variable
([ACMNA176](#))


 Numeracy

 Critical and creative thinking

Extend and apply the laws and properties of arithmetic to algebraic terms and expressions
([ACMNA177](#))

 Literacy


 Numeracy

 Critical and creative thinking

LINEAR AND NON-LINEAR RELATIONSHIPS


Given coordinates, points on the Cartesian plane, and find coordinates for a given point ([ACMNA178](#))

 Numeracy

 Critical and creative thinking

Solve simple linear equations ([ACMNA1](#)


 Numeracy

 Critical and creative thinking

Investigate, interpret and analyse graphs from authentic data
([ACMNA180](#))

 Literacy

 Numeracy

 Critical and creative thinking

Year 7 Achievement

Number and Algebra

At Standard, students perform subtraction of integers using index notation and Students use fractions to express one quantity as a

problems involving
They [compare](#) the c
numbers using vari
algebra. Students a
interpret simple line
[solve](#) simple linear
substitution.

Measurement and

Students [describe](#) c
transformations in t
involving angles for
the area and perim
Students classify tr
formed by a transve

Statistics and Pro

Students [identify](#) is
stem-and-leaf plots
median and mean i
for data sets. Stude
equally likely outco

The proficiency strands **understanding, fluency, problem-s**
content across the three content strands: number and algebra,
proficiencies reinforce the significance of working mathematica
or developed. They provide the language to build in the develop

achievement standards reflect the content and encompass the

At this year level:

- **understanding** includes describing patterns in uses of indicators, fractions, decimals, percentages and ratios, plotting points on a coordinate plane, identifying the intersection of two lines, and connecting the laws and properties of shapes
- **fluency** includes calculating accurately with integers, representing data, finding measures of central tendency and calculating area and volume
- **problem-solving** includes formulating and solving authentic problems, identifying symmetry, calculating angles and conducting experiments
- **reasoning** includes applying the number laws to calculations, identifying properties of shapes, applying an understanding of ratio and interpreting data

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