Mathematics - Number and Algebra: Foundation - Level 6

Level 6


## Foundation Level

Patterns and algebra
Sort and classify familiar objects and explain the basis for these classifications, and copy, continue and create patterns with objects and drawings

Follow a short sequence of instructions

## Achievement Standard

Students connect number names and numerals with sets of up to 20 elements, counting strategies to solve problems that involve comparing combining and separating these sets. They match individual objects with counting sequences up to and back from 20 . Students order the first 10 elements of a set. They represent, continue and create simple
patterns.

Investigate and describe number pattern formed by skip counting and patterns with objects

Recognise the importance of repetition of a process in solving problems

Students count to and from 100 and local hese numbers on a number line. They partition numbers using place value and carry out simple additions and subtractions, using Australian coins according to their value. They identify representations of one half. Students describe number sequences resulting from skip counting by $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10s. They continue simple patterns involving of digital technology.

Students count to and from, and order numbers up to 1000 . They perform simple addition and subtraction calculations, using a ange of strategies. They find the total value
of simple collections of Australian notes and coins. Students represent multiplication and division by grouping into sets and divide collections and shapes into halves, quarters and eighths. They recognise increasing and decreasing number sequences involving 2 s , $3 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s , identify the missing ele
in a number sequence, and use digital echnology to produce sequences by con addition

Students count and order numbers to and from 10000 . They recognise the connection between adaction and subtraction, and solv problems using efficient strategies for
multiplication with and without the digital technology. Students recall addition and multiplication facts for single-digit numbers. They represent money values in various ways and correctly count out chang from financial transactions. Students model and represent unit fracions for halves, thirds these up to one. They classify numbers as either odd or even, continue number patterns involving addition or subtraction, and explore ber sequences based o
multiples.

Explore and describe number patterns resulting from performing multipication

Solve word problems by using number sentences involving multiplication or division where there is no remainder
Use equivalent number sentences involving addition and subtraction to find unknown quantities
Define a simple class of problems and use an effective algorithm that involves a short sequence of steps and decisions to solve them

Students recall multiplication facts to $10 \times 10$ and related division facts. They choose appropriate strategies for calculations involving multiplication and division, with and
without the use of digitital technology, and without the use of digital technology, and
estimate answers accurately enough for the context. Students solve simple purchasing problems with and without the use of digital technology. They locate familiar fractions on a number line, recognise common equivale
fractions in familiar contexts and make fractions in familiar contexts and make notations up to two decimal places. Students identify unknown quantities in number sentences. They use the properties of odd and even numbers and describe number patterns resulting from multiplication. Students continue number sequences and unit fractions, and locate them on a number line.

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

Use equivalent number sentences involving multiplication and division to find unknown quantities
Follow a mathematical algorithm involving branching and repetition (iteration)

Students solve simple problems involving the four operations using a range of strategies including digital technology. They estimate to approximate answers by rounding Students identify and describe factors and multiples. They explain plans for simple budgets. students order decimals and unit fractions and locate them on a number line. Students add and subtract fractions with the same denominator. They find unknown quantities in adding or subtracting fractions and decimals.

Students recognise the properties of prime, composite, square and tiiangular numbers and determine sets of these numbers. They solve problems that involve all four operations
with whole numbers and describe the use of integers in everyday contexts. Students locate fractions and integers on a number line and connect fractions, decimals and percentages as different representations of he same number. They solve problems involving the addition and subtractions. Students calculate a sim fraction of a quantity and calculate common percentage discounts on sale items, with and without the use of digital technology. They make connections between the powers of 10 and the multipicication and division of decimals. Students add, subtract and multiply esult is rational. Students write number entences using brackets and order of operations, and specify rules used to enerate sequences involving whole umbers, fractions and decimals. They use coordinates of points and locate a poin ne of the four quadrants on the Cartesian plane.

