

Cross Curriculum Priorities



General Capabilities



First Steps Links

Understand Whole and Decimal Numbers

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

Understand Fractional Numbers

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

Understand Operations

- 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.

Calculate

- 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.
- KU 10 Pg.

Reason About Number Patterns

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

| Year 4 | Year 5 | Year 6 |
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| <p>NUMBER AND PLACE VALUE</p> <p>Investigate and use the properties of odd and even numbers [ACMNA071]</p> <p>Recognise, represent and order numbers to at least tens of thousands [ACMNA072]</p> <p>Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems [ACMNA073]</p> <p>Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 [ACMNA074]</p> <p>Recall multiplication facts up to 10×10 and related division facts [ACMNA075]</p> <p>Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder [ACMNA076]</p> | <p>NUMBER AND PLACE VALUE</p> <p>Identify and describe factors and multiples of whole numbers and use them to solve problems [ACMNA098]</p> <p>Use estimation and rounding to check the reasonableness of answers to calculations [ACMNA099]</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>Solve problems involving division by a one digit number, including those that result in a remainder [ACMNA101]</p> <p>Use efficient mental and written strategies and apply appropriate digital technologies to solve problems [ACMNA291]</p> | <p>NUMBER AND PLACE VALUE</p> <p>Identify and describe properties of prime, composite, square and triangular numbers [ACMNA122]</p> <p>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers [ACMNA123]</p> <p>Investigate everyday situations that use positive and negative whole numbers and zero. Locate and represent these numbers on a number line [ACMNA124]</p> |
| <p>FRACTIONS AND DECIMALS</p> <p>Investigate equivalent fractions used in contexts [ACMNA077]</p> <p>Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line [ACMNA078]</p> <p>Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation [ACMNA079]</p> | <p>FRACTIONS AND DECIMALS</p> <p>Compare and order common unit fractions and locate and represent them on a number line. Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator [ACMNA103]</p> <p>Recognise that the number system can be extended beyond hundredths [ACMNA104]</p> <p>Compare, order and represent decimals [ACMNA105]</p> | <p>FRACTIONS AND DECIMALS</p> <p>Compare fractions with related denominators and locate and represent them on a number line [ACMNA125]</p> <p>Solve problems involving addition and subtraction of fractions with the same or related denominators [ACMNA126]</p> <p>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies [ACMNA127]</p> |
| <p>Year 6 Achievement Target</p> <p>By the end of Year 6, students recognise the properties of prime, composite, square and triangular numbers. They describe the use of integers in everyday contexts. They solve problems involving all four operations with whole numbers. Students connect fractions, decimals and percentages as different representations of the same number. They solve problems involving the addition and subtraction of related fractions. Students make connections between the powers of 10 and the multiplication and division of decimals. They describe rules used in sequences involving whole numbers, fractions and decimals. Students connect decimal representations to the metric system and choose appropriate units of measurement to perform a calculation. They make connections between capacity and volume. They solve problems involving length and area. They interpret timetables. Students describe combinations of transformations. They solve problems using the properties of angles. Students compare observed and expected frequencies. They interpret and compare a variety of data displays including those displays for two categorical variables. They evaluate secondary data displayed in the media. Students locate fractions and integers on a number line. They calculate a simple fraction of a quantity. They add, subtract and multiply decimals and divide decimals where the result is rational. Students calculate common percentage discounts on sale items. They write correct number sentences using brackets and order of operations. Students locate an ordered pair in any one of the four quadrants on the Cartesian plane. They construct simple prisms and pyramids. Students list and communicate probabilities using simple fractions, decimals and percentages.</p> | | |
| <p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies [ACMNA080]</p> | <p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Create simple financial plans [ACMNA106]</p> | <p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies [ACMNA132]</p> |
| <p>PATTERNS AND ALGEBRA</p> <p>Explore and describe number patterns resulting from performing multiplication [ACMNA081]</p> <p>Solve word problems by using number sentences involving multiplication or division where there is no remainder [ACMNA082]</p> <p>Use equivalent number sentences involving addition and subtraction to find unknown quantities [ACMNA083]</p> | <p>PATTERNS AND ALGEBRA</p> <p>Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction [ACMNA107]</p> <p>Use equivalent number sentences involving multiplication and division to find unknown quantities [ACMNA121]</p> | <p>PATTERNS AND ALGEBRA</p> <p>Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence. [ACMNA133]</p> <p>Explore the use of brackets and order of operations to write number sentences [ACMNA134]</p> |

ACTIVITIES

Resources Being Used

PROFICIENCY STRANDS

Understanding

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.

Problem Solving

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.

Fluency

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.

Reasoning

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.