

Rosemount Primary School



National Benchmarks for Numeracy and Maths First Level



About the National Benchmarks

The National Benchmarks have been introduced to ensure consistency of standards and expectations across teachers and schools, and to support reporting on progression in learning.

The Benchmarks support teacher professional judgement of achievement of a level. They set out very clear statements about what children need to know and be able to do to achieve each level of the curriculum.

Assessment is an on-going process to support learning. The Benchmarks are used to help monitor progress towards achievement of a level and to support overall professional judgement of when a learner has achieved a curriculum level. Evidence of progress and achievement will come from:

- observing day-to-day learning within, and outwith, the classroom;
- coursework, including tests;
- learning conversations;
- planned periodic holistic assessments;
- and information from standardised assessments.

Benchmarks are used to review this body of evidence to determine if the standard has been achieved and the learner has:

- Achieved a breadth of learning across the knowledge, understanding and skills as set out in the experiences and outcomes for the level.
- Responded consistently well to the level of challenge set out in the experiences and outcomes for the level and has moved forward to learning at the next level in some aspects.
- Demonstrated application of what they have learned in new and unfamiliar situations.

Benchmarks are not checklists for teachers to work their way through from top to bottom. Teachers will plan learning and teaching appropriate to your child's age, stage, ability and prior learning.

Routes towards the National Benchmarks will be different from child to child, as they progress through their individual learning journeys and work towards achieving the National Benchmarks BY THE END OF A LEVEL (P1 / P4 / P7).

BY THE END OF P4, most learners can:

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Number, Money and Measure	Estimation and rounding	<ul style="list-style-type: none"> • Uses strategies to estimate an answer to a calculation or problem, for example, doubling and rounding. • Rounds whole numbers to the nearest 10 and 100 and uses this routinely to estimate and check the reasonableness of a solution.
	Number and number processes	<ul style="list-style-type: none"> • Reads, writes, orders and recites whole numbers to 1000, starting from any number in the sequence. • Demonstrates understanding of zero as a placeholder in whole numbers to 1000. • Uses correct mathematical vocabulary when discussing the four operations including, subtract, add, sum of, total, multiply, product, divide and shared equally. • Identifies the value of each digit in a whole number with three digits, for example, $867 = 800 + 60 + 7$. • Counts forwards and backwards in 2s, 5s, 10s and 100s. • Demonstrates understanding of the commutative law, for example, $6 + 3 = 3 + 6$ or $2 \times 4 = 4 \times 2$. • Applies strategies to determine multiplication facts, for example, repeated addition, grouping, arrays and multiplication facts. • Solves addition and subtraction problems with three digit whole numbers. • Adds and subtracts multiples of 10 or 100 to or from any whole number to 1000. • Applies strategies to determine division facts, for example, repeated subtraction, equal groups, sharing equally, arrays and multiplication facts. • Uses multiplication and division facts to solve problems within the number range 0 to 1000. • Multiplies and divides whole numbers by 10 and 100 (whole number answers only). • Applies knowledge of inverse operations (addition and subtraction; multiplication and division). • Solves two step problems
	Fractions, decimal fractions and percentages	<ul style="list-style-type: none"> • Explains what a fraction is using concrete materials, pictorial representations and appropriate mathematical vocabulary. • Demonstrates understanding that the greater the number of equal parts, the smaller the size of each share. □ Uses the correct notation for common fractions to tenths, for example, $1/2$, $2/3$ and $5/8$. • Compares the size of fractions and places simple fractions in order on a number line. • Uses pictorial representations and other models to demonstrate understanding of simple equivalent fractions, for example, . • Explains the role of the numerator and denominator. • Uses known multiplication and division facts and other strategies to find unit fractions of whole numbers, for example, $1/2$ or $1/4$.

Number, Money and Measure	Money	<ul style="list-style-type: none"> Identifies and uses all coins and notes to £20 and explores different ways of making the same total. Records amounts accurately in different ways using the correct notation, for example, 149p = £1.49 and 7p = £0.07. Uses a variety of coin and note combinations, to pay for items and give change within £10. Applies mental agility number skills to calculate the total spent in a shopping situation and is able to calculate change. Demonstrates awareness of how goods can be paid for using cards and digital technology
	Time	<ul style="list-style-type: none"> Tells the time using half past, quarter past and quarter to using analogue and digital 12 hour clocks. Records 12 hour times using am and pm and is able to identify 24 hour notation, for example, on a mobile phone or computer. Records the date in a variety of ways, using words and numbers. Uses and interprets a variety of calendars and 12 hour timetables to plan key events. Knows the number of seconds in a minute, minutes in an hour, hours in a day, days in each month, weeks and days in a year. Orders the months of the year and relates these to the appropriate seasons. Selects and uses appropriate timers for specific purposes.
	Measurement	<ul style="list-style-type: none"> Uses knowledge of everyday objects to provide reasonable estimates of length, height, mass and capacity. Makes accurate use of a range of instruments including rulers, metre sticks, digital scales and measuring jugs when measuring lengths, heights, mass and capacities using the most appropriate instrument for the task. Records measurements of length, height, mass and capacity to the nearest standard unit, for example, millimetres (mm), centimetres (cm), grams (g), kilograms (kg), millilitres (ml), litres (l). Compares measures with estimates. Uses knowledge of relationships between units of measure to make simple conversions, for example, 1 m 58 cm = 158 cm. Reads a variety of scales on measuring devices including those with simple fractions, for example, 1 2 litre. Uses square grids to estimate then measure the areas of a variety of simple 2D shapes to the nearest half square.. Creates shapes with a given area to the nearest half square using square tiles or grids. □ Recognises that different shapes can have the same area (conservation of area).
	Mathematics – its impact on the world, past, present and future	<ul style="list-style-type: none"> Investigates and shares understanding of the importance of numbers in learning, life and work. Investigates and shares understanding of a variety of number systems used throughout history.

Number, Money and Measure	Patterns and relationships	<ul style="list-style-type: none"> Counts forwards and backwards in 2s, 5s and 10s from any whole number up to 1000. Describes patterns in number, for example, in the multiplication tables and hundred square. Continues and creates repeating patterns involving shapes, pictures and symbols. Describes, continues and creates number patterns using addition, subtraction, doubling, halving, counting in jumps (skip counting) and known multiples.
	Expressions and equations	<ul style="list-style-type: none"> Understands and accurately uses the terms 'equal to', 'not equal to', 'less than', 'greater than', and the related symbols ($=$, \neq, $<$, $>$) when comparing quantities. Applies understanding of the equals sign as a balance, and knowledge of number facts, to solve simple algebraic problems where a picture or symbol is used to represent a number, for example, $\square + 17 = 30$ and $\square \times 6 = 30$.
Shape, Position and Movement	Properties of 2D shapes and 3D objects	<ul style="list-style-type: none"> Names, identifies and classifies a range of simple 2D shapes and 3D objects and recognises these shapes in different orientations and sizes. Uses mathematical language to describe the properties of a range of common 2D shapes and 3D objects including side, face, edge, vertex, base and angle. Identifies 2D shapes within 3D objects and recognises 3D objects from 2D drawings. Identifies examples of tiling in the environment and applies knowledge of the features of 2D shapes to create tiling patterns incorporating two different shapes.
	Angle, symmetry and transformation	<ul style="list-style-type: none"> Uses technology and other methods to describe, follow and record directions using words associated with angles, directions and turns including, full turn, half turn, quarter turn, clockwise, anticlockwise, right turn, left turn, right angle. Knows that a right angle is 90°. Knows and uses the compass points, North, South, East and West. Uses informal methods to estimate, compare and describe the size of angles in relation to a right angle. Finds right angles in the environment and in well-known 2D shapes. \square Identifies where and why grid references are used. Describes, plots and uses accurate two figure grid references, demonstrating knowledge of the horizontal and vertical location. Identifies symmetry in patterns, pictures, nature and 2D shapes. \square Creates symmetrical pictures and designs with more than one line of symmetry.

Information Handling	Data and analysis	<ul style="list-style-type: none"> • Asks and answers questions to extract key information from a variety of data sets including charts, diagrams, bar graphs and tables. • Selects and uses the most appropriate way to gather and sort data for a given purpose, for example, a survey, questionnaire or group tallies. • Uses a variety of different methods, including the use of digital technologies, to display data, for example, as block graphs, bar graphs, tables, Carroll diagrams and Venn diagrams. • Includes a suitable title, simple labelling on both axes and an appropriate scale where one unit represents more than one data value in graphs.
	Ideas of chance and uncertainty	<ul style="list-style-type: none"> • Uses mathematical vocabulary appropriately to describe the likelihood of events occurring in everyday situations including, probable, likely/unlikely, certain/uncertain, possible/impossible, and fair/unfair. • Interprets data gathered through everyday experiences to make reasonable predictions of the likelihood of an event occurring.