

Algebra

Although algebraic notation is not introduced until Year 6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Year 1

- Solve problems including missing number problems

Teaching for Mastery is designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- Have number at their heart. A large proportion of time is spent reinforcing number to build competency.
- Ensure teachers stay in the required key stages and support the ideal of depth before breadth.
- Ensure students have the opportunity to stay together as they work through the schemes as a whole group.
- Provide plenty of time to build reasoning and problem solving elements into the curriculum.

Concrete – Pictorial – Abstract

As a school we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.



Maths

Progression in Measurement, Geometry & Statistics

Year 3

If you require any examples,
please contact the class teacher.

Measurement – using measures

- Measure, compare, add and subtract:
 - Lengths (m/cm/mm)
 - Mass (kg/g)
 - Volume/capacity (l/ml)

Measurement – money

- Add and subtract amounts of money to give change, using both £ and p in practical contexts

Measurement – time

- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
- Know the number of seconds in a minute and the number of days in each month, year and leap year
- Compare durations of events (e.g. to calculate the time taken by particular events or tasks)

Measurement – perimeter, area, volume

- Measure the perimeter of simple 2d shapes

Geometry – 2d & 3d shapes

- Draw 2d shapes
- Make 3d shapes using modelling materials; recognise 3d shapes in different orientations and describe them

Geometry – angles & lines

- Recognise angles as a property of shape or a description of a turn
- Identify right angles, recognise that two right angles make a half turn, three make three-quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Statistics

- Interpret and present data using bar charts, pictograms and tables
- Solve one-step and two-step questions (e.g. How many more? and How many fewer?) using information presented in scaled bar charts and pictograms and tables