

**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 5

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

### **Measurement – using measures**

- Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation, including scaling

### **Measurement – money**

- Use all four operations to solve problems involving measure (e.g. money)

### **Measurement – time**

- Solve problems involving converting between units of time

### **Measurement – perimeter, area, volume**

- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- Calculate and compare the area of rectangles (inc. squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes
- Estimate volume (e.g. using 1cm<sup>3</sup> blocks to build cuboids (inc. cubes) and capacity (e.g. using water)

### **Geometry – 2d & 3d shapes**

- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- Use the properties of rectangles to deduce related facts and find missing lengths and angles
- Identify 3d shapes, including cubes and other cuboids, from 2d representations

### **Geometry – angles & lines**

- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- Draw given angles and measure them in degrees
- Identify:
  - Angles at a point and one whole turn (total 360°)
  - Angles at a point on a straight line and ½ a turn (total 180°)
  - Other multiples of 90°

### **Geometry – position & direction**

- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

### **Statistics**

- Complete, read and interpret information in tables, including timetables
- Solve comparison, sum and difference problems using information presented in a line graph

