

Year 5 objectives

Pupils should be taught to:

Decimals:

- * read and write decimal numbers as fractions (e.g. $0.71 = 71/100$)
- * recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- * read, write, order and compare numbers with up to three decimal places
- * solve problems involving number up to three decimal places.
- * solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
- * multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Measurement:

- convert between different units of metric measure (for example, 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
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Geometry

- * identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees (o)
- identify angles at a point and one whole turn (total 360°); angles at a point on a straight line and $2\frac{1}{2}$ a turn (total 180°); other multiples of 90°
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Tasks/activities informed by National Curriculum:

1. Use columnar methods to add and subtract decimals.
2. Develop other methods of addition and subtraction, such as number lines and mental methods.
3. Develop the use of “I do, we do, you do” questions using modelling, paired work and independent work.
4. Apply skills learned in streamed reasoning to reasoning and problem solving questions in main tasks and extensions.

Vocabulary:

Add, subtract, exchange, columns, place value, place holder, estimate, round, inverse operation, check, decimal, point, ones, tenths, hundredths, thousandths.

Convert, equivalent, kilometre, metre; centimetre, millimetre; gram, kilogram; litre, millilitre.

3D, 2D, cubes, cuboids, angles, degrees, protractors, measure, polygons, regular, irregular.

Selected Resources

- * Whiteboards and pens
- * Classroom secrets
- * Big Maths
- * Place value charts
- * Interactive whiteboards
- * White Rose Maths
- + Greenhouse words
- * Working wall

