

# Maths Year 6 Yearly Overview



## Year 6 Maths Overview

### Maths at Granby

- Objectives are written in order of teaching and in line with the White Rose Scheme of Work.
- An objective may equal part of a lesson, a one lesson or may require multiple lessons and broken into even smaller steps.
- The length of units may vary depending on cohort needs as previous year group objectives may need to be revised or retaught first.
- The lengths of units may vary or continue into the next term depending on events, trips, visitors and the assessment weeks which may interrupt a sequence of learning.
- Teachers will use their professional discretion to make decisions about the length and order of teaching sequences, and record changes on the overview accordingly.

### Key:

Number and place value
Addition and Subtraction
Multiplication and division
Fractions
Decimals
Percentages
Measures
Geometry
Statistics
Algebra
Ratio

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Autumn	Autumn 1			Autumn 2	
Domain	Number and Place value	Addition and subtraction	Multiplication and division	Fractions	Geometry: position and direction
Objectives	<p>To read and write numbers to 1,000,000</p> <p>To read and write numbers to 10,000,000</p> <p>To understand the place value of digits</p> <p>To understand powers of 10</p> <p>To partitioning numbers</p> <p>To place numbers on a number line</p> <p>To compare and order integers</p> <p>To round integers to nearest 10, 100, 1000</p> <p>To round to the nearest 10,000, 100,000 and 1,000,000</p> <p>To round to the nearest 10,000, 100,000 and 1,000,000</p> <p>To understand negative numbers</p>	<p>To add integers</p> <p>To subtract integers</p>	<p>To understand multiples and common multiples</p> <p>To understand factors</p> <p>To understand common factors</p> <p>To use rules of divisibility</p> <p>To understand prime numbers to 100</p> <p>To understand square numbers</p> <p>To understand cube numbers</p> <p>To use short multiplication</p> <p>To use long multiplication to multiply 4 digits by 2 digits</p> <p>To use a formal written method for long multiplication</p> <p>To use short division (no remainders) - revision</p> <p>To use short division (with remainders) - revision</p> <p>To show remainders as decimals.</p> <p>To use long division to divide up to 4 digits by 2 digits</p> <p>To use a formal written method for long division with remainders</p> <p>To solve multi-step problems</p> <p>To know the order of operations</p> <p>To use mental calculations and estimating</p>	<p>To understand what fractions and wholes are (revision)</p> <p>To count in fractions (revision)</p> <p>To find equivalent fractions to unit fractions</p> <p>To find equivalent fractions to non-unit fractions.</p> <p>To simplify fractions</p> <p>To compare fractions less than one (y5)</p> <p>To order fractions less than one (y5)</p> <p>To compare and order fractions (by denominator)</p> <p>To compare and order fractions (by numerator)</p> <p>To find fractions of amounts (units)</p> <p>To find fractions of an amount (non-unit)</p> <p>To find the whole</p>	<p>To read and plot coordinates in the first quadrant</p> <p>To read and plot coordinates in four quadrants</p>

# Maths Year 6 Yearly Overview



Spring	Spring 1		Spring 2	
Domain	Fractions	Decimals	Percentages	Measures
Objectives	<p>To add and subtract (under one whole) – revision of yr 4</p> <p>To add and subtract fractions (cross the whole) – revision of yr5</p> <p>To add and subtract fractions where one fraction is a multiple of the other – revision of yr5</p> <p>To add and subtract fractions using a common denominator</p> <p>To add mixed numbers</p> <p>To subtract mixed numbers (break the whole)</p> <p>To solve multi-step problems</p> <p>To multiply fractions by integers</p> <p>To multiply mixed numbers by Integers</p> <p>To multiply mixed numbers by Integers</p> <p>To multiply fractions by fractions</p>	<p>Revise previous objectives</p> <p>To understand tenths as fractions and decimals</p> <p>To understand hundredths as fractions and decimals (revision)</p> <p>To understand tenths as fractions and decimals – revision of yr5</p> <p>To round decimals</p> <p>To find decimal and fraction equivalents</p> <p>To add and subtract decimals</p> <p>To multiply decimals by 10,100 and 1000</p> <p>To divide decimals by 10,100 and 1000</p> <p>To multiply and divide decimals by integers</p>	<p>To understand what a percentage is</p> <p>To convert fractions to percentages</p> <p>To find equivalent fractions, decimals and percentages</p> <p>To order fractions, decimals and percentages</p> <p>To find percentages of amounts (one step)</p> <p>To find percentages of amounts (multi-step)</p> <p>To calculate missing values using percentages</p>	<p>To read scales involving length (revision)</p> <p>To convert units of length (revision)</p> <p>To convert miles and kilometres (y6)</p> <p>To read scales involving mass (revision)</p> <p>To convert units of mass (revision)</p> <p>To read scales involving capacity (revision)</p> <p>To convert units of capacity (revision)</p> <p>To calculate with metric measures</p> <p>To understand Imperial measures</p> <p>To calculate with imperial measures</p> <p><b>Area, perimeter and volume</b></p> <p>To calculate the perimeter of rectangles (yr4/5)</p> <p>To calculate the perimeter of rectilinear shapes (yr5)</p> <p>To calculate the area composite shapes (yr5)</p> <p>To find the area and perimeter</p> <p>To calculate the area of triangles by counting squares</p> <p>To calculate the area of triangles</p> <p>To calculate the area of parallelogram</p>

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	To divide fractions (where numerator can be divided) To divide any fraction			To calculate volume by counting To calculate the volume of a cuboid
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## Spring 2 Friday afternoons: **Statistics:**

to read and interpret line graphs

to read and interpret bar charts and dual bar charts

to read and interpret pie charts

to understand pie charts with percentages

to calculate the mean

# Maths Year 6 Yearly Overview



Summer	Summer 1				Summer 2
Domain	<b>Geometry: properties of shape</b>	<b>Ratio</b>	<b>Algebra</b>	<b>Revision x1 week</b>	<b>Transition Unit</b>
<b>Objectives</b>	<p>To measure and classify angles. To calculate angles.</p> <p>To calculate vertically opposite angles.</p> <p>To calculate angles in triangles.</p> <p>To calculate angles in quadrilaterals.</p> <p>To calculate angles in polygons.</p> <p>To understand properties of circles.</p> <p>To draw shapes accurately</p> <p>To understand properties of 2D and 3D shapes (revision)</p> <p>To recognise and build 3D shapes.</p> <p>To calculate angles in polygons.</p>	<p>To understand and draw using scale factors.</p> <p>To solve problems involving similar shapes where the scale factor is known or can be found</p> <p>To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</p>	<p>To: express and solve missing number problems algebraically using substitution.</p> <p>To find pairs of numbers that satisfy number sentences involving one and two unknowns</p> <p>To use simple formulae</p> <p>To generate and describe linear number sequences</p>	<p><b>Number and Place Value</b></p> <p><b>FDP</b></p>	<p>Transition unit – Art and Maths</p> <p>Tessellation:</p> <ul style="list-style-type: none"> <li>- To tessellate shapes</li> </ul> <p>Circle geometry:</p> <ul style="list-style-type: none"> <li>- to identify radius, circumference and diameter of a circle</li> <li>- to draw a circle using a compass</li> </ul> <p><b>Statistics:</b></p> <ul style="list-style-type: none"> <li>- to construct pie charts</li> </ul> <p>White Rose Problem solving and themed units</p>

Summer 1 Friday afternoon maths lessons: **Geometry: position and direction:** To reflect shapes To translate shapes