

Year 3

Mastery Overview Term by Term

Overview

As a school we have adopted the Mastery overview and calculation policy from the White Rose Maths hub.

There is a termly plan for each year group from Year 1 to Year 6; each term is split into twelve weeks. You will see from the overviews that a significant amount of time is devoted to developing key number concepts each year. This is to build pupils' fluency as number sense will affect their success in other areas of mathematics. Pupils who are successful with number are much more confident mathematicians.

Assessment

Within our school assessment is an ongoing process to enable teachers to identify what content and skills pupils have grasped and to set next steps for learning.

Teaching for Mastery

The overviews we have adopted support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the 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 stage 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

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

Concrete - pupils will have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial - pupils will 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, pupils will be able to move to an abstract approach using numbers and key concepts with confidence.

Year 3 Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place value			Number: Addition and Subtraction				Number: Multiplication and Division			Consolidation	
Spring	Number: Multiplication and Division			Measurement: Money	Statistics		Measurement: Length and Perimeter		Number: Fractions		Consolidation	
Summer	Number: Fractions			Measurement: Time		Geometry: Properties of Shapes		Measurement: Mass and capacity			Consolidation	

Term by term objectives – Autumn

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><u>Number – Place Value</u></p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</p> <p>Compare and order numbers up to 1000.</p> <p>Read and write numbers up to 1000 in numerals and in words.</p> <p>Solve number problems and practical problems involving these ideas.</p> <p>Count from 0 in multiples of 4, 8, 50 and 100</p>			<p><u>Number: Addition and Subtraction</u></p> <p>Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds.</p> <p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>					<p><u>Number: Multiplication and Division</u></p> <p>Count from 0 in multiples of 4, 8, 50 and 100</p> <p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</p> <p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.</p>			<p>Consolidation</p>

Term by term objectives - Spring

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Multiplication and division</u> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.			<u>Measurement - Money</u> Add and subtract amounts of money to give change, using both £ and p in practical contexts.	<u>Statistics</u> Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.		<u>Measurement – Length and perimeter</u> Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). Measure the perimeter of simple 2D shapes.			<u>Number – Fractions</u> Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Solve problems that involve all of the above.		Consolidation

Term by term objectives - Summer

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
<u>Number – Fractions</u> Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Add and subtract fractions with the same denominator within one whole (for example, $5/7 + 1/7 = 6/7$) Solve problems that involve all of the above.			<u>Measurement – Time</u> 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 [for example to calculate the time taken by particular events or tasks].			<u>Geometry – Properties of shapes</u> 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. Draw 2-D shapes and make 3-D shapes using modelling materials. Recognise 3-D shapes in different orientations and describe them.		<u>Measurement – Mass and capacity</u> Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).			Consolidation	