

Year 2

Term by Term
Mastery Overview

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 2 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				Measurement: Money		Number: Multiplication and Division		
Spring	Number: Multiplication and Division		Statistics		Geometry: Properties of Shapes			Number: Fractions			Measurement: Length and height	Consolidation
Summer	Position and Direction			Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature			Investigations	

Term by Term Objectives - Autumn Term

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: Place Value</u> Read and write numbers to at least 100 in numerals and in words. Recognise the place value of each digit in a two digit number (tens, ones) Identify, represent and estimate numbers using different representations including the number line. Compare and order numbers from 0 up to 100; use <, > and = signs. Use place value and number facts to solve problems. Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.			<u>Number: Addition and Subtraction</u> Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.					<u>Measurement: Money</u> Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.		<u>Number: Multiplication and Division</u> Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) sign. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	

Term by Term Objectives - Spring term

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>Number: <u>Multiplication and Division</u></p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.</p> <p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</p> <p>Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p>		<p>Statistics</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and comparing categorical data.</p>		<p>Geometry: <u>Properties of shapes</u></p> <p>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</p> <p>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</p> <p>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid.]</p> <p>Compare and sort common 2-D and 3-D shapes and everyday objects.</p>			<p>Number: <u>Fractions</u></p> <p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>			<p>Measurement: <u>length and height</u></p> <p>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</p> <p>Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$</p>		<p>Consolidation</p>	

Term by Term Objectives - Summer term

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>Position and Direction</u> Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). Order and arrange combinations of mathematical objects in patterns and sequences			<u>Problem solving and efficient methods.</u>		<u>Measurement: Time</u> Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day. Compare and sequence intervals of time.		<u>Measurement: Mass, Capacity and Temperature</u> Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using >, < and =.			<u>Investigations</u>		