Valley End Mathematics Curriculum Overview

Intent
At Valley End we aim to give the children a solid, foundational understanding of number, the four main mathematical operations (addition, subtraction, multiplication and division), fractions, shape, measures, position and direction. We also aim to develop pupils' mathematical fluency and develop pupils' reasoning, problem solving skills and mathematical application so that they understand and appreciate the importance of mathematics within the world that we live in.   We develop the pupils' mathematical confidence through a Maths Mastery approach, which develops skills, techniques and understanding, enabling Mathematics to become an enjoyable subject, that teaches key skills for life.
Implementation
At Valley End we have adopted the White Rose Maths (WRM) scheme. WRM provides Schemes of Learning for all our pupils, from Early Years to Year 2, supporting teachers, and parents, in helping children work towards Maths Mastery. Our aim is for pupils to become fluent in the fundamentals of Mathematics, to be able to reason and solve problems. WRM advocates the Concrete-Pictorial-Abstract approach to teaching maths, an approach that helps children understand mathematical concepts and make connections between different representations. In the EYFS children follow the Teaching for Mastery programme from the National Centre for Excellence in the Teaching of Mathematics. This curriculum develops a deep and lasting understanding of mathematical procedures and concepts for children in a practical and engaging way. It is designed to ensure a coherent and detailed sequence of essential content to support sustained progression over time. In EYFS, our children are encouraged to explore and investigate number, shape, space and measures. Much of their Mathematical Development is embedded through learning and play in all areas of learning, such as Understanding the World and Expressive Arts and Design. Children develop skills in adding and subtracting, and using numbers in problem solving in the continuous provision, throughout the setting. Children explore shapes, learn the vocabulary of shape, compare measurements and to use non-standard measurements in their play. In Key Stage One, our children continue to explore and investigate mathematical concepts in order to gain a deeper understanding. They are taught to explore mathematical patterns and connections and to talk about their methods and reasoning using appropriate mathematical language and vocabulary. There is a strong emphasis on mental mathematics, problem solving, using and applying mathematics which enables children to practise their developing skills in a range of contexts. The teaching and learning of Mathematics is engaging, creative and through the use of effective teaching strategies and resources, deepens pupil understanding.
Impact
The philosophy behind White Rose Maths focuses on making maths fun for children and helps them to find enjoyment in number problems. When children are engaged in, and enjoying maths, deeper learning happens. Through the White Rose Maths approach to teaching, all children have the same opportunities to learn and the support they need to fully grasp concepts. At Valley End, the majority of children reach the expected standard for EYFS and many children exceed this, ensuring they are ready to access the Year 1 curriculum for Mathematics. This is also true for our Key Stage 1 children, where child are able to apply their understanding, at an age appropriate level, and have developed a confidence to begin to reason and solve problems.

	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	WRM Getting to know you	Subitising Perceptual subitising (Very small sets of objects). Identifying 2s and 3s in different arrangements.	Counting, cardinality and ordinality Development of counting skills to enable them to identify how many there are in a set that cannot be subitised.	Composition Explore how numbers can be composed of 1s and, investigate the composition of 3 and 4.	Subitising Building on 'perceptual' subitising by saying the number of sounds they can hear.	Comparison Use the language of comparison to describe sets of objects that they can see	Counting, ordinality and cardinality Deepening understanding of 5 as a quantity by linking the number itself to the 5 fingers on one hand.	Comparison Compare the number of objects in 2 sets by matching them 1:1	Composition The concept of 'wholes' and 'parts' Investigating the composition of 3, 4 and 5

	Week 1	Week 2	Week 3	Week 4 and 5		Week 6	Week 7	Week 8	Week 9, 10, 11, 12
Spring	Counting, ordinality and cardinality Revisit the concept of 1:1 correspondence. Counting together to numbers larger than 20	Subitising Complex arrangements, moving from dots in a line and arrangements of 2'	Counting, ordinality and cardinality the stable order principle	Composition Consolidation of the composition of 5 Exploring ways to represent numbers using the Hungarian number pattern (die pattern). WRM Compare mass/ Capacity		Comparison Notice when quantities are equal or unequal WRM Time	Counting, ordinality and cardinality consolidate the 'stable order principle' WRM Pattern	Comparison 'less than' is used instead of 'fewer than' when the focus is on each number's position in the counting sequence.	Composition This week, the children will consolidate their understanding of the composition of numbers within 7 composition of numbers within 10, focusing on the 'special case' of when 2 equal parts combine to make a whole WRM Length and height

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11 and 12
Summer	WRM 3D shapes	WRM Spatial awareness	WRM Spatial reasoning	WRM Mapping							

Year 1

	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 (within 10)**					Number **Addition and subtraction (within 10)**					Geometry Shape	Consolidation
Spring	Number **Place value (within 20)**			Number **Addition and subtraction (within 20)**			Number **Place value (within 50)**		Measurement **Length and height**		Measurement **Mass and volume**	
Summer	Number **Multiplication and division**			Number **Fractions**		Geometry **Position and direction**	Number **Place value (within 100)**		Measurement **Money**	Measurement **Time**		Consolidation

Year 2

	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**					Geometry **Shape**		
Spring	Measurement **Money**		Number **Multiplication and division**					Measurement **Length and height**		Measurement **Mass, capacity and temperature**		
Summer	Number **Fractions**			Measurement **Time**			Statistics		Geometry **Position and direction**		Consolidation	