

Maths Curriculum Overview YEAR 5

	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		Statistics		Number: Multiplication and division			Measurement: Perimeter and area	
Spring	Number: Multiplication and division			Number: Fractions						Number: Decimals and percentages		Consolidation
Summer	Consolidation	Number: Decimals			Geometry: Properties of shape			Geometry: Position and direction		Measurement: Converting units		Volume

YEAR 6

	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, subtraction, multiplication and division				Number: Fractions				Geometry: Position and direction	Geometry: Properties of shape
Spring	Number: Decimals		Number: Percentages		Number: Algebra		Measurement: Converting units	Measurement: Perimeter and area		Number: Ratio		Statistics
Summer	Consolidation and revision for SATS			SATS WEEK		Themed projects		Investigations, problem solving and themed projects				

YEAR 7

	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	Algebraic thinking						Place value and proportion					
	Sequences		Understand and use algebraic notation		Equality and equivalence		Place value and ordering integers and decimals			Fraction, decimal and percentage equivalence		
Spring	Applications of number						Directed number			Fractional thinking		
	Solving problems with addition and subtraction		Solving problems with multiplication and division			Fractions & percentages of amounts	Operations and equations with directed number			Addition and subtraction of fractions		
Summer	Lines and angles						Reasoning with number					
	Constructing, measuring and using geometric notation			Developing geometric reasoning			Developing number sense		Sets and probability		Prime numbers and proof	

YEAR 8

	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	Proportional reasoning						Representations					
	Ratio and scale		Multiplicative change		Multiplying and dividing fractions		Working in the Cartesian plane			Representing data		Tables & probability
Spring	Algebraic techniques						Developing number					
	Brackets, equations and inequalities				Sequences	Indices	Fractions and percentages			Standard index form		Number sense

	Developing geometry			Reasoning with data	
Summer	Angles in parallel lines and polygons	Area of trapezia and circles	Line symmetry & reflection	The data handling cycle	Measures of location

YEAR 9

	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	Reasoning with algebra						Constructing in 2 and 3 dimensions					
	Straight line graphs		Forming and solving equations		Testing conjectures		Three-dimensional shapes			Constructions and congruency		
Spring	Reasoning with number						Reasoning with geometry					
	Numbers		Using percentages		Maths and money		Deduction		Rotation and translation		Pythagoras' theorem	
Summer	Reasoning with proportion						Representations and revision					
	Enlargement and similarity		Solving ratio and proportion problems		Rates		Probability		Algebraic representation	Revision		

KS2 Maths

Intent

- To help all our pupils **achieve** success in maths.
- To **inspire** pupils by teaching maths lessons that are engaging and challenging.
- To help pupils understand that mistakes are a valuable part of learning and to further build their confidence so that they are willing to take new **risks** and explore different strategies.
- To offer a rich and **varied approach** that aims to develop mathematical understanding through clear sequencing and progression of the national curriculum objectives.
- To make **arithmetic** (addition, subtraction, multiplication and division) a focus as we believe it underpins almost every area of mathematics - being fluent in these skills will provide a strong foundation as pupils move from KS2 into KS3 and beyond.

Implementation

- **Curriculum and scheme of learning:** Carefully considering a scheme that covers every national curriculum objective across KS2 and KS3; a scheme that breaks down learning of topics into smaller steps with clear progression from one building block to the next and a scheme that is aspirational at its core - the in-depth questioning stretches and challenges even the most able pupils! White Rose maths covers all these bases and more and therefore we use this as the foundation that we plan and teach from.
- **Accessibility of curriculum resources:** Providing a centralised area (KS2 and KS3 maths google drives) where all of the schemes of learning, teaching resources, assessments and data books can be easily accessed.
- **Shared responsibility of resources:** Continuously developing both the KS2 and KS3 maths drives by adding new teaching ideas.
- **Teaching and learning:** Offering a wide range of rich tasks. Yes, we do use White Rose maths as our framework but in addition to this, we also use a plethora of other sources to plan and develop lessons. We invest in our pupils by subscribing to a number of online platforms to further engage pupils at school and support their learning at home. Educational websites include White Rose Premium, Edplace, IXL and TTRockstars. This approach gives us flexibility within our teaching and ensures that we reach all the different learning styles and needs of the pupils under our care.
- **Setting:** Identifying and knowing the needs of our pupils paired with recognising the strengths of each member of our maths team help inform decisions about maths sets and groupings.

Implementation

- **Diagnostic tests:** Giving pupils the opportunity to complete a diagnostic assessment at the start of each block of work - results from these tests help inform planning and teaching.
- **ROML (reflect on my learning) sheets:** Providing pupils with a learning journey (all the 'small steps' objectives) for every unit of work throughout KS2 and KS3. Each step builds on the previous one and pupils use these ROMLs to reflect on their progress within lessons and over time.
- **Progression:** Delivering a KS2 curriculum that focuses on developing number sense and the four operations (note all the light-red highlighted blocks related to number - please refer to the Year 5 and 6 curriculum maps/grids). Some Year 5 blocks are also repeated in Year 6 to both consolidate and further develop these key skills. We often implement the Concrete-Pictorial-Abstract approach to learning and in KS2 pupils benefit from seeing lots of visual representations for more complex mathematical ideas. This focus on number and visual representations means that pupils are in a strong position to deal with the more abstract concepts by the time they reach KS3, at which point we start focussing on algebraic understanding in much greater depth.
- **Intervention:** Investing in our pupils by offering a range of in and after school maths intervention sessions. Pupils from all year groups are offered this opportunity and sessions are led by specialist maths teachers. Groups are kept small in order to maximise impact/progress.

Impact

- In KS2 maths, our attainment was 85% for the year 2019 which is well above the national average (79%) for that year. (please note that pupils in Year 6 have not sat this test since 2019 due to Covid 19)
- Excellent progress in KS2 maths (-0.3) made from 2018 - 2019 - this is a massive leap!
- KS2 pupil premium pupils performed even better (-0.17 progress)
- Focus on arithmetic in Year 6 has dramatically improved the SATS paper 1 scores (arithmetic paper) which in turn has had a knock-on effect on the number of pupils achieving a standardised score of 100.
Please see below the average scores and progress for paper 1 scores for the 2018 - 2019 academic year:

November - 20.3 average (out of 40 total marks)

March - 27.9 average

May - 30.8 average

- Observations and learning walks have shown an increased use of STEM sentences and correct use of mathematical language. These sentences complement mathematical representations by revealing its structure which in turn means that pupils are remembering more and can explain complex ideas better than before.