Mathematics

Long Term Overview and Small Steps

Year 6

Created May 2024 - adapted from White Rose Schemes of work Green – Ready to Progress Core Concepts

15 weeks	Autumn			
	Number Place Value	Number Addition and Subtraction	Number Multiplication and Division	Number Fractions
	4 weeks	3 weeks	3 weeks	4 weeks
Autumn	1. Numbers to 1,000,000 2. Numbers to 10,000,000 3. Number line to 10,000,000 4. Powers of 10 5. Compare and order any integers 6. Place value within 1 (Decimals) 7. Place value – integers and decimals (Decimals) 8. Round any integer 9. Round decimals (Decimals) 10. Multiply by 10, 100 and 1,000 (Decimals) 11. Divide by 10, 100 and 1,000 (Decimals) 12. Convert metric measures 13. Calculate with metric measures 14. Negative numbers	1. Teach mental methods for addition and subtraction 2. Add and subtract integers 3. Multi-step problems 4. Use inverse to check calculations 5. Add and subtract decimals (Decimals) 6. Mental calculations and estimations	1. Multiply and divide using known times tables facts (7 x 0.5 and 630 / by 7) 2. Square and cube numbers 3. Common factors 4. Common multiples 5. Rules of divisibility 6. Prime numbers to 100 7. Mental calculations and estimations 8. Reason from known facts 9. Multiply up to a 4-digit number by a 2-digit number 10. Solve problems with multiplication 11. Multiply decimals by integers (Decimals) 12. Short division 13. Division with a decimal remainder 14. Divide decimals by integers (Decimals) 15. Division using factors 16. Introduction to long division 17. Long division with remainders 18. Solve problems with division 19. Solve multi-step problems 20. Multiply and divide decimals in context (Decimals) 21. Order of operations 22. Reason from known facts 23. Using estimations to check answers	1. Equivalent fractions and simplifying 2. Equivalent fractions on a number line 3. Compare and order (denominator) 4. Compare and order (numerator) 5. Add and subtract simple fractions 6. Add and subtract any two fractions 7. Add mixed numbers 8. Subtract mixed numbers 9. Multi-step problems 10. Multiply fractions by integers (B) 11. Multiple fractions by fractions (B) 12. Divide a fraction by an integer (B) 13. Divide any fraction by an integer (B) 14. Mixed questions with fractions (B) 15. Fractions of an amount (B) 16. Fractions of an amount – find the whole (B)

13 weeks	Spring				
	Number Fractions, Decimals and Percentages	Number Algebra	Measurement	Number Ratio	Geometry Shape
	2 weeks	2 weeks	3 weeks	2 weeks	3 weeks
Spring	1. Decimals and fraction equivalents 2. Fractions as division 3. Understand percentages 4. Fractions to percentages 5. Equivalent fractions, decimals and percentages 6. Order fractions, decimals and percentages 7. Percentage of an amount – one step 8. Percentage of an amount – multi-step 9. Percentages – missing values	1. 1-step function machines 2. 2-step function machines 3. Form expressions 4. Substitution 5. Formulae 6. Form equations 7. Solve 1-step equations 8. Solve 2-step equations 9. Find pairs of values 10. Solve problems with two unknowns	**Converting units** 1. Metric measures 2. Miles and kilometres 3. Imperial measures **Area, perimeter and volume** 1. Shapes-same area 2. Area and perimeter 3. Area of a triangle – counting squares 4. Area of a right-angled triangle 5. Area of any triangle 6. Area of a parallelogram 7. Volume-counting cubes 8. Volume of a cuboid **Time (revision)** 1. Tell the time using the digital, analogue and 24-hour clock	1. Add or multiply? 2. Use ratio language 3. Introduction to the ratio symbol 4. Ratio and fractions 5. Scale drawing 6. Use scale factors 7. Similar shapes 8. Ratio problems 9. Proportion problems 10. Recipes	1. Measure and classify angles 2. Calculate angles 3. Vertically opposite angles 4. Angles in a triangle 5. Angles in a triangle – special cases 6. Angles in a triangle – missing angles 7. Angles in quadrilaterals 8. Angles in polygons 9. Circles 10. Draw shapes accurately 11. Nets of 3-D shapes

11 weeks	Summer		
	Geometry Position and Direction	Statistics	Consolidation
	1 week	2 weeks	
Summer	1. The first quadrant 2. Read and plot points in four quadrants 3. Solve problems with coordinates 4. Translations 5. Reflections	1. Line graphs 2. Dual bar charts 3. Read and interpret pie charts 4. Pie charts with percentages 5. Draw pie charts 6. The mean	

White Rose - Suggested number of weeks	
Place Value	2 weeks
Addition and Subtraction, Multiplication and Division	5 weeks
Fractions	4 weeks
Converting Units	1 week
Ratio	2 weeks
Algebra	2 weeks
Decimals *Added to Place Value*	2 weeks
Fractions, Decimals and Percentages	2 weeks
Area, perimeter and volume	2 weeks
Statistics	2 weeks
Shape	3 weeks
Position and Direction	1 weeks
Themed projects and consolidation	8 weeks