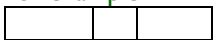
Highgate Primary
Year 5 Maths Curriculum

Number
Measurement
Geometry
Statistics

WALT: We Are Learning To
WAP: We Are Practising

Autumn 2: What Price Progress?

Week	Unit	National Curriculum objectives Possible lesson objectives	White Rose Maths (WRM) 'small steps'	Models and images representing number Key vocabulary	Reasoning (in addition to WRM questions)	Fluency
1	**Statistics (2)**					
	• complete, read and interpret information in tables, including timetables WALT read and interpret tables WALT read and interpret a two-way table WALT construct a two-way table WALT read and interpret a timetable WALT use a timetable to answer problems with more than one step		• Read and interpret tables • Two-way tables • Timetables	Tables, two-way tables, timetables	**Is this true or false?** **Convince me.** Make up your own 'true/false' statement about a journey using a timetable.	Bonds to 1000 and 10 000
2	**Number** **Calculation: Multiplication and division (1)**					
	• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers WALT identify and use multiples WALT identify and use fators WALT find common factors WALT identify prime numbers WALT reason about prime numbers		• Multiples • Factors • Common factors • Prime numbers	Array (of counters)	**NRICH Sweets in a Box** **NRICH Abundant Numbers** **NRICH Flashing Lights** **NRICH Multiplication Squares** **NRICH Factors and Multiples Game** **NRICH Factor Track**	Mental addition
3	• establish whether a number up to 100 is prime and recall prime numbers up to 19 • multiply and divide numbers mentally drawing upon known facts • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000		• Square numbers • Cube numbers • Multiply by 10 • Multiply by 100 • Multiply by 10, 100 and 1000	Array (of counters), cubes, bar model, place value grid, base-10, part-whole model	**NRICH Two Primes Make One Square** **NRICH One Wasn't Square** **NRICH Cycling Squares** **NRICH Square Subtraction** or **NRICH Odd Squares**	Mental subtraction

	WALT calculate square numbers WALT calculate cube numbers WAP multiplying by 10 WAP multiplying by 100 WALT multiply by 1000				
4	• multiply and divide numbers mentally drawing upon known facts • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 WAP dividing by 10 WAP dividing by 100 WALT divide by 1000 WALT use related facts to multiply and divide	• Divide by 10 • Divide by 100 • Divide by 10, 100 and 1000 • Multiples of 10, 100 and 1000	Place value counters, base-10, place value grid, counters	**Making links** 7 x 8 = 56 How can you use this fact to solve these calculations? 0.7 x 0.8 = 5.6 ÷ 8 = **Always, Sometimes, Never** When you divide by 1000, you end up with a decimal number **Prove it** Dividing by 1000 is the same as dividing by 10, three times.	Recall of primes, squares and cubes
5	**Measurement** **Perimeter and Area**				
	• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres WALT use a ruler to accurately measure perimeter WALT to use a grid to find perimeter WALT find the perimeter of a rectangle WALT find the perimeter of a rectilinear shape WALT use a formula to calculate perimeter	• Measuring perimeter • Perimeter on a grid *(revision)* • Perimeter of rectangles *(revision)* • Perimeter of rectilinear shapes *(revision)* • Calculating perimeter	Ruler	**Other possibilities** A rectangular field has a perimeter between 14 and 20 metres. What could its dimensions be? **Testing conditions** Shape A is a rectangle that is 4m long and 3m wide. Shape B is a square with sides 3m. The rectangles and squares are put together side by side to make a path which has perimeter between 20 and 30 m. For example  Can you draw some other arrangements where the perimeter is between 20 and 30 metres? **Do, then Explain** When you join 2 equal size squares, side-by-side, to make a larger rectangle,	Times table revision

				what do you notice about the perimeter of the new shape compared to the perimeter of the starting squares? Explain why this happens. Experiment with joining other rectangles together – does the same thing happen?	
6	• calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes WALT find area by counting squares WALT use a formula to calculate the area of a rectangle WALT relate area to arrays and multiplication *[not WRM]* WALT find the area of compound rectilinear shapes WALT estimate the area of irregular shapes	• Counting squares • Area of rectangles *(revision)* • Area of compound shapes • Area of irregular shapes	Arrays	**Top Tips** Put these amounts in order starting with the largest. 130000cm2 1.2 m2 13 m2 Explain your thinking **What's the Same, What's Different?** A 4 x 5 array and the area of a rectangle with sides of 4 cm and 5 cm. **NRICH Numerically Equal →** **NRICH Can They Be Equal** **NRICH Ribbon Squares** **NRICH Through the Window**	Division within times tables
7	**Warm-down week** **Consolidation of material covered earlier in the term**				