## Herons' Maths Medium Term Plan, Spring Term 2023.

We will be following White Rose units for the Spring Term of Years 5 and 6.

Mental Maths: using MyMiniMaths.co.uk, Year 5 and 6 will complete mental maths questions each day or at least 3 days out of 5 concentrating on the four operations, times table recall and other aspects of the Year 5/6 curriculum as necessary to help fluency and quick recall of facts across Mathematical disciplines. E.g: number, calculations, fractions/decimals/percentages, shape/space, measure, data handling and to support oral problem solving and reasoning. Other mental maths opportunities will be provided using White Rose 'Flashback 4' resources and weekly times table practice/tests.

Problem Solving and Reasoning Skills: PSRS questions and opportunities are available every day for children, from the extension/'choose your own challenge' baskets in the classroom.

White Rose Small Steps: each lesson will usually take the form of the L.O. in each separate small step for the unit in question (see below).

Main Maths lessons are daily, Monday-Friday in the morning, either from 11am as usual or from 9:40 to 10:40 dependant on timetable/staffing and the 'Step' or L.O. in question. Monday-Thursday lessons follow the sequence of the main unit. Friday's lessons are usually fractions-based to support ongoing recall and understanding of fractions.

L.O.s are titled 'To understand...' or 'To understand and use..." unless otherwise stated.

Year 5	Year 6
Spring 1 <sup>st</sup> , Weeks 1, 2 and 3 (Not Fridays of	Spring 1 <sup>st</sup> , Weeks 1-3 (not Fridays of weeks
Weeks 2 and 3:	2 and 3):
Unit: Y5, Multiplication and Division B.	Unit: Y6, Ratio
• <b>Step 1</b> To Multiply up to a 4-digit	• Step 1 To decide whether to add or
number by a 1-digit number	multiply
• Step 2 To Multiply a 2-digit number	• Step 2 To use ratio language
by a 2-digit number (area model)	• Step 3 Introduction to the ratio
• Step 3 To Multiply a 2-digit number	symbol (combined with Step 4)
by a 2-digit number	• Step 4 To explore the relationship
• Step 4 To Multiply a 3-digit number	between ratio and fractions
by a 2-digit number	• Step 5 Scale drawing
• Step 5 To Multiply a 4-digit number	• Step 6 Use scale factors
by a 2-digit number	• Step 7 To compare similar shapes
Step 6 To Solve problems with	Step 8 Ratio problems
multiplication	Step 9 Proportion problems
• (Step 7 Short division – to be	• Step 10 Ratio and proportion with
missed/put together with Step 8)	Recipes

• Step 8 To Divide a 4-digit number by	• Rest of week 3 to involve:
a 1-digit number	consolidation of ratio
• Step 9 To Divide with remainders	understanding, formal methods of
Step 10 Efficient division	four operations and to recap
• Step 11 To Solve problems with	Measurement and long division
multiplication and division	from autumn term
<ul> <li>Spring 1<sup>st</sup>, Weeks 2 and 3 (Fridays only), weeks 4 and 5 (Mon-Friday): Unit: Y5 Fractions B.</li> <li>Step 1 Multiply a unit fraction by an integer</li> <li>Step 2 Multiply a non-unit fraction by an integer</li> <li>Step 3 Multiply a mixed number by an integer</li> <li>Step 4 Calculate a fraction of a quantity</li> <li>Step 5 Fraction of an amount</li> <li>Step 6 Find the whole</li> </ul>	<ul> <li>Spring 1<sup>st</sup>, Weeks 2 and 3 (Fridays only): Unit: Year 6 Fractions (autumn term recap and consolidation, link to Spring Unit 3 – Decimals).</li> <li>Consolidation exercises as required. SEN/LAP: to recap Fractions work from Year 5 unit</li> <li>MAP/HAP/GD: Extension through Reasoning and Problem Solving activities to support understanding/fluency and practice of answering of multi-mark SATs questions involving multi-step problems.</li> </ul>
Step 7 Use fractions as	
operators	
Spring 1 <sup>st</sup> , Week 6 (Monday-Thursday with	Spring 1 <sup>st</sup> , Weeks 4 & 5 (all days):
Friday saved for	Unit: Y6 Algebra.
consolidation/contingency): Unit: Y5 Decimals and Percentages.	Step 1 1-step function machines
<ul> <li>Step 1 Decimals and Percentages.</li> <li>Step 1 Decimals up to 2 decimal places</li> <li>Step 2 Equivalent fractions and decimals (tenths)</li> <li>Step 3 Equivalent fractions and decimals (hundredths)</li> <li>Step 4 To understand and use Equivalent fractions and decimals</li> </ul>	<ul> <li>Step 2 2-step function machines</li> <li>Step 3 To understand and form expressions</li> <li>Step 4 To understand and use Substitution</li> <li>Step 5 To understand and use Formulae</li> <li>Step 6 Form equations</li> <li>Step 7 Solve 1-step equations</li> <li>Step 8 Solve 2-step equations</li> <li>Step 9 Find pairs of values</li> <li>Step 10 Solve problems with two unknowns</li> </ul>
Spring 2 <sup>re</sup> , Weeks 1 & 2 (Mon-Fri), Week 3 (Monday, Tuesday for consolidation and	Spring 1 <sup>st</sup> , Week 6 (all) and Spring 2 <sup>nd</sup> , Week 2 (Mon-Thu):
unit test).	Unit: Year 6 Decimals.

Unit: Y5 Decimals and Percentages (cont'd).	• Step 1 Place value within 1
Step 5 Thousandths as fractions	(included with Step 2)
Step 6 Thousandths as decimals	Step 2 Place value – integers
Step 7 Thousandths on a place	and decimals
value chart	Step 3 Round decimals
Step 8 Order and compare	Step 4 Add and subtract
decimals (same number of	decimals
decimal places)	• Step 5 Multiply by 10, 100 and
Step 9 Order and compare any	1,000
decimals with up to 3 decimal	• Step 6 Divide by 10, 100 and
places (combined with Step 8)	1,000
Step 10 Round to the nearest	Step 7 Multiply decimals by
whole number	integers
Step 11 Round to 1 decimal	Step 8 Divide decimals by
place	integers
• Step 12 Understand percentages	Step 9 Multiply and divide
• Step 13 Percentages as fractions	decimals in context
Step 14 Percentages as	
decimals	
Step 15 Equivalent fractions,	
decimals and percentages	
decimals and percentages	
decimals and percentages Spring 2 <sup>nd</sup> , Weeks 3 (Weds-Fri), 4 (all).	Spring 2, Week 2 (Thu/Fri) & Week 3 (all):
decimals and percentages Spring 2 <sup>nd</sup> , Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume.	Spring 2, Week 2 (Thu/Fri) & Week 3 (all): Unit: Y6 Fractions, Decimals & Percentages:
Spring 2 <sup>nd</sup> , Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume. • Step 1 Investigate shapes with	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all):</li> <li>Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> </ul>
<ul> <li>decimals and percentages</li> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle –</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> </ul>
<ul> <li>decimals and percentages</li> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions,</li> </ul>
<ul> <li>decimals and percentages</li> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> </ul>
<ul> <li>decimals and percentages</li> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> <li>Step 6 Area of a parallelogram</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> <li>Step 6 Order fractions, decimals</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> <li>Step 6 Area of a parallelogram</li> <li>Step 7 Volume - counting cubes</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> <li>Step 6 Order fractions, decimals and percentages</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> <li>Step 6 Area of a parallelogram</li> <li>Step 7 Volume - counting cubes</li> <li>Step 8 Volume of a cuboid</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> <li>Step 6 Order fractions, decimals and percentages</li> <li>Step 7 Percentage of an amount</li> </ul>
<ul> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all).</li> <li>Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> <li>Step 6 Area of a parallelogram</li> <li>Step 7 Volume - counting cubes</li> <li>Step 8 Volume of a cuboid</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> <li>Step 6 Order fractions, decimals and percentages</li> <li>Step 7 Percentage of an amount – one step</li> </ul>
<ul> <li>decimals and percentages</li> <li>Spring 2<sup>nd</sup>, Weeks 3 (Weds-Fri), 4 (all). Unit: Y5 Area, Perimeter and Volume.</li> <li>Step 1 Investigate shapes with the same area</li> <li>Step 2 Area and perimeter</li> <li>Step 3 Area of a triangle – counting squares</li> <li>Step 4 Area of a right-angled triangle</li> <li>Step 5 Area of any triangle</li> <li>Step 6 Area of a parallelogram</li> <li>Step 7 Volume - counting cubes</li> <li>Step 8 Volume of a cuboid</li> </ul>	<ul> <li>Spring 2, Week 2 (Thu/Fri) &amp; Week 3 (all): Unit: Y6 Fractions, Decimals &amp; Percentages:</li> <li>Step 1 Decimal and fraction equivalents (revision, with Step 2)</li> <li>Step 2 Fractions as division</li> <li>Step 3 Understand percentages</li> <li>Step 4 Fractions to percentages</li> <li>Step 5 Equivalent fractions, decimals and percentages</li> <li>Step 6 Order fractions, decimals and percentages</li> <li>Step 7 Percentage of an amount – one step</li> <li>Step 8 Percentage of an amount</li> </ul>

	Stop 0 Dereentergee missing
	• Step 9 Percentages – missing
	values
Spring 2 <sup>nd</sup> Weeks 5 and 6 (to Easter break).	Spring 2 <sup>nd</sup> Weeks 4 (all) & 5 (Mon-Tues):
Unit: Statistics.	Unit: Area, Perimeter and Volume.
Step 1 Line graphs	• Step 1 (Recap, with Step 2)
Step 2 Dual bar charts	Shapes - same area
Step 3 Read and interpret pie	Step 2 To calculate Area and
charts	perimeter of rectilinear shapes
Step 4 Pie charts with	Step 3 Area of a triangle –
percentages	counting squares
Step 5 Draw pie charts	• Step 4 Area of a right-angled
• Step 6 To find the mean	triangle
<ul> <li>Spare/extra days to be used</li> </ul>	• Step 5 Area of any triangle
for recap/consolidation and	• Step 6 Area of a parallelogram
unit/term tests as appropriate	• Step 7 Volume - counting cubes
	• Step 8 Volume of a cuboid
	• Wednesday of week 5 for
	consolidation/extension & as
	contingency.
	Spring 2 <sup>nd</sup> – Weeks 5 (Thu-onwards) and 6
	(to Easter break):
	Unit: Y6 Statistics.
	Step 1 Line graphs
	Step 2 Dual bar charts
	Step 3 Read and interpret pie
	charts
	Step 4 Pie charts with
	percentages
	Step 5 Draw pie charts
	Step 6 The mean