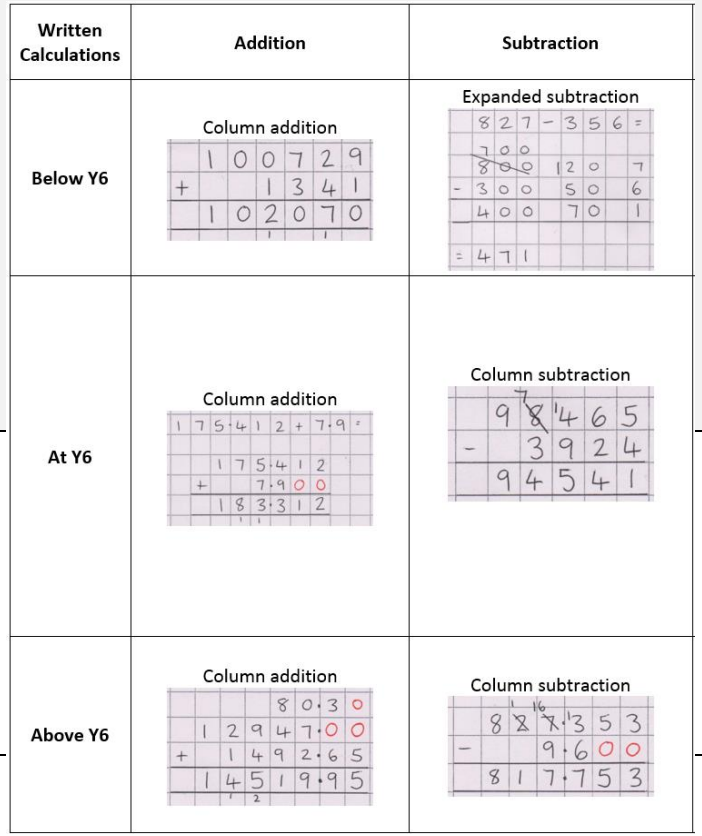
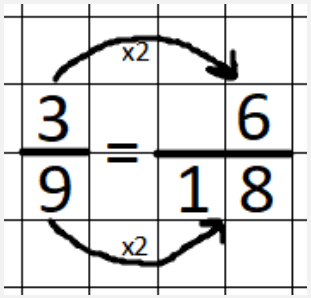
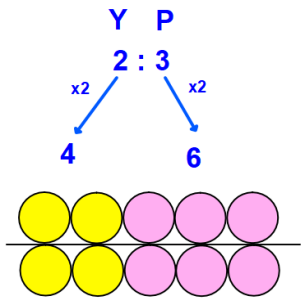
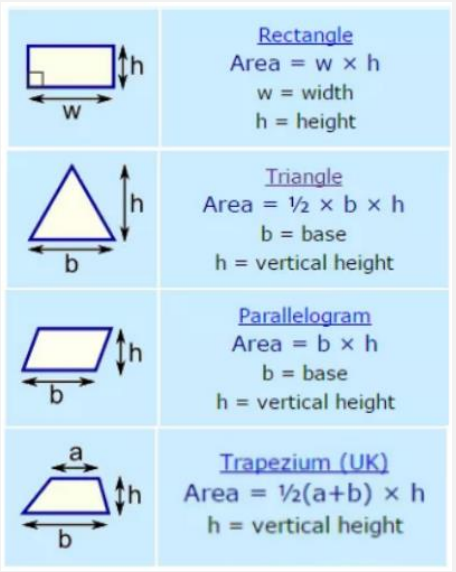
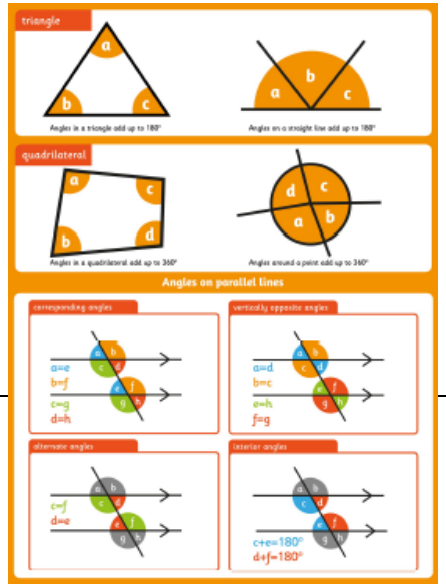
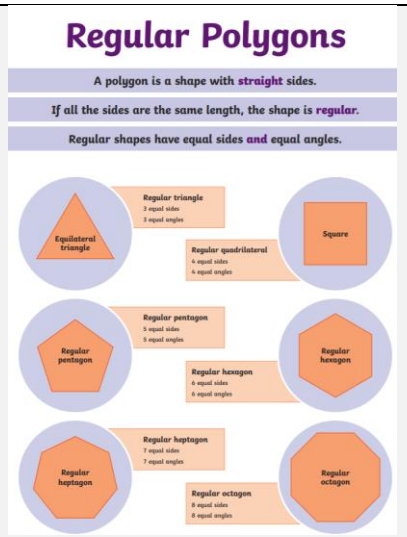
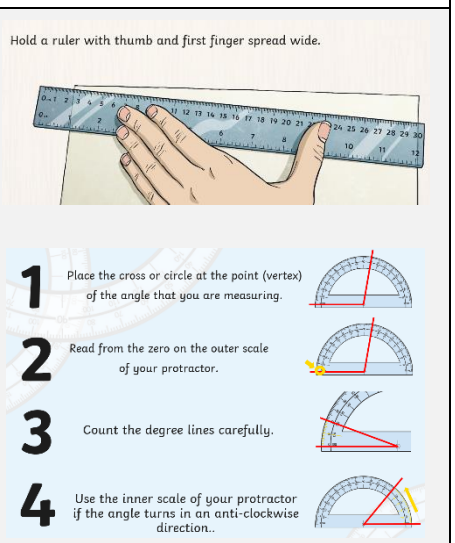
Year Six Autumn Term Reasoning			Knowledge Organiser Vocabulary	Knowledge Organiser Visuals
Week 1	National Curriculum Statements	<u>Place Value</u> **Recall from Y5:** read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. read, write, order and compare numbers with up to 3 decimal places **Teach for Y6:** read, write, order and compare numbers up to 10,000,000 and determine the value of each digit **Stretch with:** Manipulation of place value given a certain number or to get a certain number.	Ten Millions Millions Hundred Thousands Ten Thousands Thousands Hundreds Tens Ones Tenths Hundredths Thousandths More than (>) Less than (<) Equal (=) Decimal point	
Week 2	National Curriculum Statements	<u>Addition</u> **Recall from Y5:** solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why **Teach for Y6:** solve addition multi-step problems in contexts, deciding which operations and methods to use and why **Stretch with:** Involving measures and shape which add extra difficulty when finding a value with unknown parts.	Addition Add Regroup	
	Know Your Facts	**Pre-Teach call and response statements from Week 4** **Equivalent Fractions**		
Week 3	National Curriculum Statements	<u>Subtraction</u> **Recall from Y5:** solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why **Teach for Y6:** solve subtraction multi-step problems in contexts, deciding which operations and methods to use and why **Stretch with:** Inverse operations with multiple steps, what is my number, explain etc.	Subtraction Subtract Exchange	

	Know Your	Pre-Teach N/A		
Week 4	National Curriculum Statements	<u>Equivalent Fractions</u> **Recall from Y5:** identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths **Teach for Y6:** use common factors to simplify fractions; use common multiples to express fractions in the same denomination **Stretch with:** Inclusion of mixed numbers.	Equivalent Numerator Denominator Equivalent Arrows Common Denominator	
	Know Your Facts	**Pre-Teach call and response statements from Week 6 Area** **Call and Response Statements Equivalent Fractions** Equivalent means the … **same** The top number is the … **numerator** The bottom number is the … **denominator** Whatever I do to the numerator … **I do to the denominator** (swap it around)		
Week 5	National Curriculum Statements	<u>Ratio Pure</u> **Recall from Y5 -** **Teach for Y6** solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. solve problems involving unequal sharing and grouping using knowledge of fractions and multiples **Stretch with** finding possibilities when given parameters or information.	Ratio Relative Quantity Missing value 5:3 (5 to 3)	
	Know Your Facts	**Pre-Teach call and response statements from Week 7 Missing Angles** **Call and Response Statements – N/A**		

Week 6	National Curriculum Statements	<u>Area</u> **Recall from Y5:** calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes **Teach for Y6:** recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for the area of shapes. Calculate the area of parallelograms and triangles **Stretch with:** Shapes with missing pieces/patterns. Different shapes.	Area Width Height Base cm^2 m^2 Formulae Parallelogram Trapezium	
	Know Your Facts	**Pre-Teach call and response statements from Week 8 2D Shape** **Call and Response Statements Area** The area is the … **inside of the shape.**		
Week 7	National Curriculum Statements	<u>Missing Angles</u> **Recall from Y5:** know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. identify: angles at a point and 1 whole turn (total 360°). Angles at a point on a straight line and half a turn (total 180°). Other multiples of 90°. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. **Teach for Y6:** recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons **Stretch with:** Combination questions with multiple angle rules within shapes and including reflex angles where appropriate.	right angle (90°) obtuse angle (>90°) acute angle (<90°) degrees ° reflex (180°<reflex<360°) half turn/ straight line 180° full turn 360° angle rules interior angles	

	Know Your Facts	**Pre-Teach statements - N/A** **Call and Response Statements Missing Angles** Angles are measured in … **degrees** An acute angle is … **less than 90 degrees** A right angle has how many degrees … **90** An obtuse angle is … **more than 90 degrees** Angles on a straight line add up to … **180 degrees** Angles in a full turn add up to … **360 degrees**	corresponding angles alternate angles vertically opposite angles	
Week 8	National Curriculum Statements	<u>2D Shape</u> **Recall from Y5:** distinguish between regular and irregular polygons based on reasoning about equal sides and angles. use the properties of rectangles to deduce related facts and find missing lengths and angles **Teach for Y6:** draw 2-D shapes using given dimensions and angles **Stretch with:** Shapes at angles.	Regular Irregular Sides Angles Corners Angles Triangle Quadrilateral Pentagon Hexagon Heptagon Octagon	 
	Know Your Facts	**Pre-Teach statements N/A** **Call and Response Statements 2D Shape** A three sided shape is a … **triangle** A four sided shape is a … **quadrilateral** A five sided shape is a … **pentagon** A six sided shape is a … **hexagon** A seven sided shape is a … **heptagon** An eight sided shape is an … **octagon** 2D shapes have **… sides and corners** In a regular shape, the sides and angles are the **… Same**		
Week 9	National Curriculum Statements	<u>Line Graphs</u> **Recall from Y5:** solve comparison, sum and difference problems using information presented in a line graph **Teach for Y6**: interpret and construct line graphs and use these to solve problems **Stretch with:** Estimate between values on scales where the answer is not exact.	Line graph Continuous data Sum Difference Comparison interpret	

	Know Your Facts	Pre-Teach statements N/A		**Line Graph** Line graphs are used to show changes to a measurement over time. Data shown in a line graph is continuous. Sets of points are joined together to make the line. **A line graph to show the length of shadows over time**