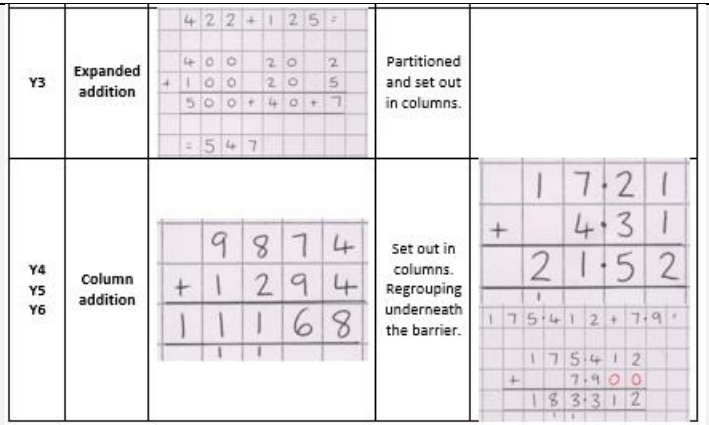
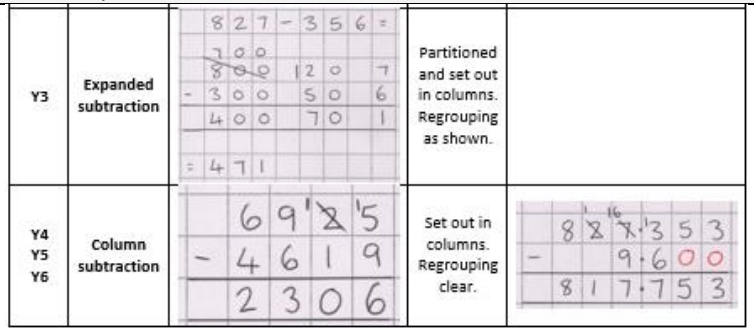
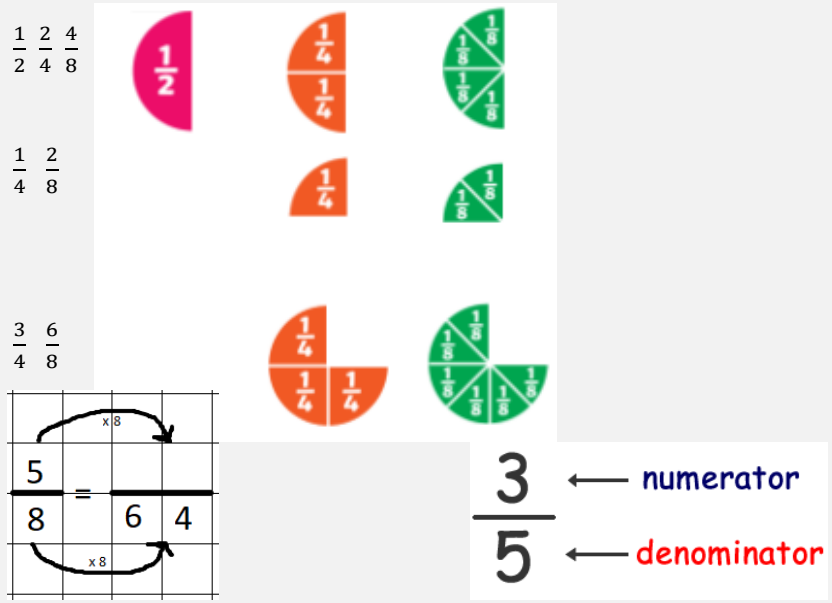
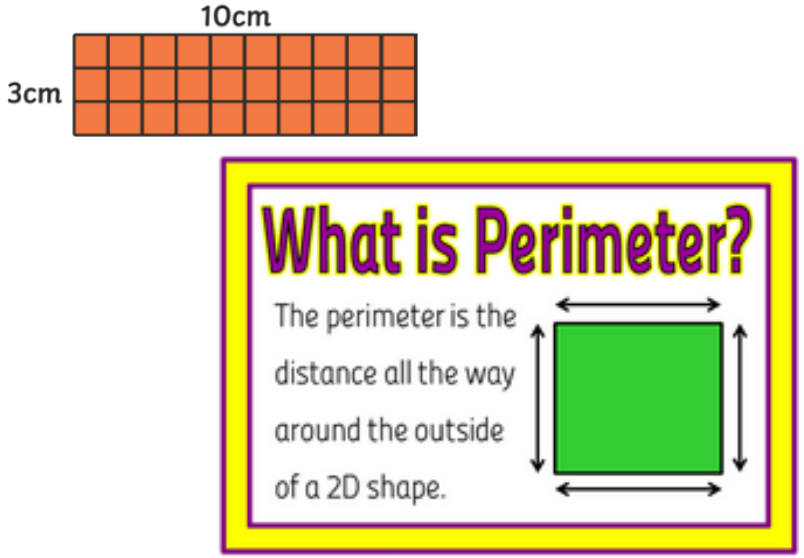
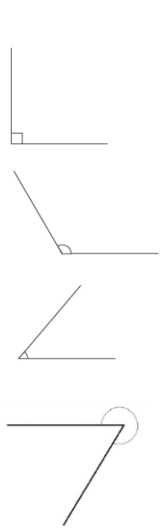
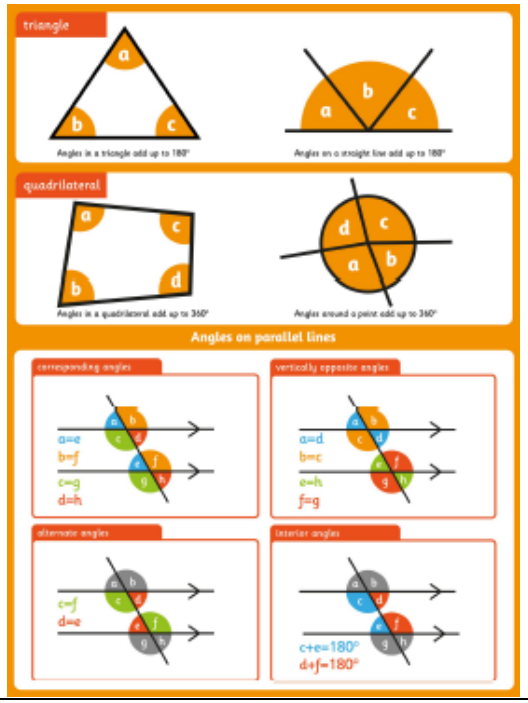
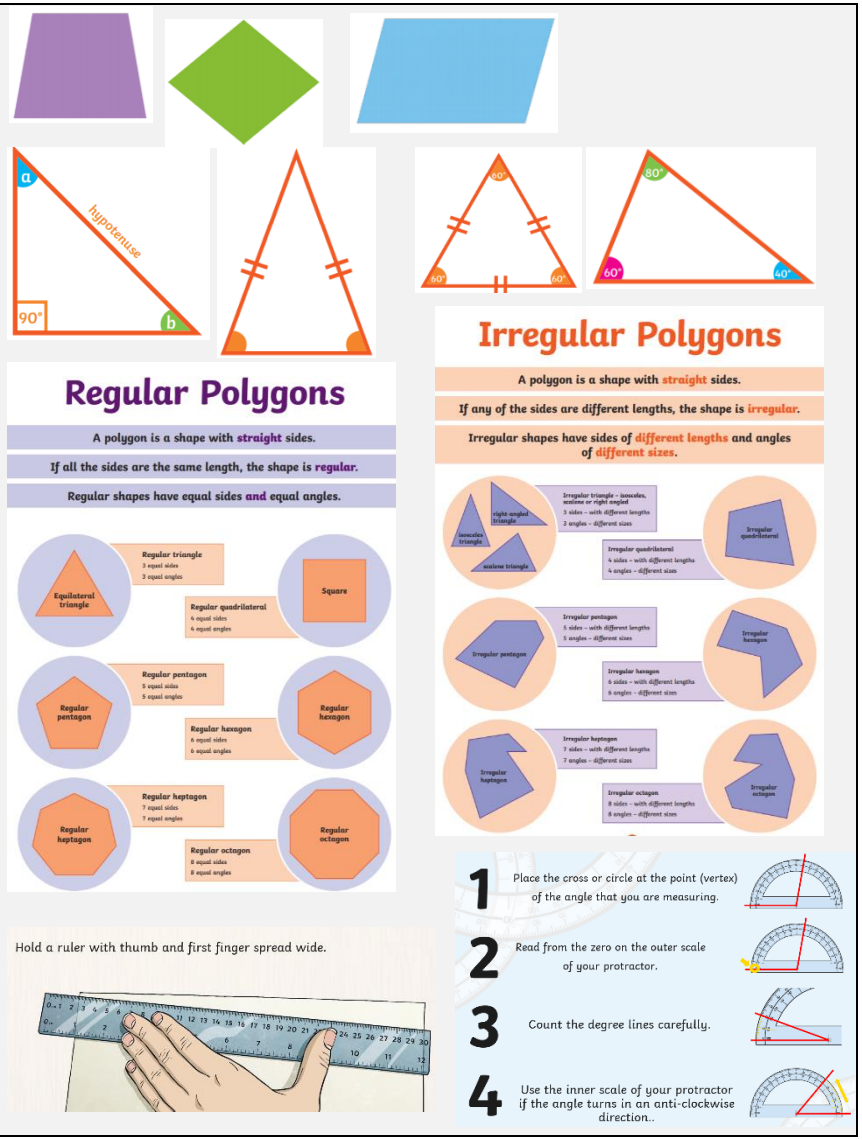
Rowan Autumn Term Reasoning			Knowledge Organiser Vocabulary	Knowledge Organiser Visuals
Week 1	National Curriculum	<u>Place Value</u> **Teach for Y4:** recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). Order and compare numbers beyond 1,000. Compare numbers with the same number of decimal places up to 2 decimal places. **Teach for Y5:** read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. 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	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> **Teach for Y4:** solve addition two-step problems in contexts, deciding which operations and methods to use and why. **Teach for Y5:** solve addition 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	Addition Add Regroup	 Note – this is to illustrate the written method, not necessarily the level to pitch it at.
	Know Your Facts	**Pre-Teach call and response statements from Week 4 Equivalent Fractions**		
Week 3	National Curriculum Statements	<u>Subtraction</u> **Teach for Y4:** solve subtraction two-step problems in contexts, deciding which operations and methods to use and why **Teach for Y5:** solve 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	Subtraction Subtract Exchange	 Note – this is to illustrate the written method, not necessarily the level to pitch it at.
	Know Your Facts	**Pre-Teach call and response statements from Week 5 Perimeter**		

Week 4	National Curriculum Statements	<u>Equivalent Fractions</u> **Teach for Y4:** recognise and show, using diagrams, families of common equivalent fractions. **Teach for Y5:** compare and order fractions whose denominators are all multiples of the same number. 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	Equivalent Numerator Denominator Equivalent Arrows Common Denominator	
	Know Your Facts	**Pre-Teach call and response statements from Week 6 Measures** **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>Perimeter</u> **Teach for Y4:** measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres **Teach for Y5:** measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. Use the properties of rectangles to deduce related facts and find missing lengths and angles **Teach for Y6:** recognise that shapes with the same areas can have different perimeters and vice versa	Perimeter Side Centimetres Metres Rectangle Quadrilateral	
	Know Your Facts	**Pre-Teach call and response statements from Week 7 Angle Rules Week 7** **Call and Response Statements Perimeter** The perimeter is the … **outside of the shape.** A square has … **four equal sides** A four sided shape is a … **quadrilateral.**		

<table>
<tr><td rowspan="2">Week 6</td><td>National Curriculum Statements</td><td><u>Measures Problems</u>
Teach for Y4: estimate, compare and calculate different measures, including money in pounds and pence.
Teach for Y5: use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
Teach for Y6: solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</td><td rowspan="2">Length
Mass
Volume
Money
Millilitre (ml)
Litre (l)
Gram (g)
Kilogram (kg)
Millimetre (mm)
Centimetre (cm)
Metre (m)
Kilometre (km)
Pence (p)
Pound (£)</td><td rowspan="2"></td></tr>
<tr><td>Know Your Facts</td><td>Pre-Teach call and response statements from Week 8 2D Shape

Call and Response Statements Measures Problems
There are how many metres in kilometre … 1000
There are how many grams in a kilogram … 1000
There are how many millilitres in a litre … 1000</td></tr>
<tr><td rowspan="2">Week 7</td><td>National Curriculum Statements</td><td><u>Angle Rules</u>
Teach for Y4: identify acute and obtuse angles and compare and order angles up to two right angles by size
Teach for Y5: know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°), other multiples of 90°
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</td><td rowspan="2">right angle (90°)
obtuse angle (>90°)
acute angle (<90°)
degrees °
reflex (180°<reflex<360°)
half turn/ straight line 180°
full turn 360°</td><td rowspan="2"> 
  </td></tr>
<tr><td>Know Your Facts</td><td>Pre-Teach call and response statements from Week 1 Rounding

Call and Response Statements Angle Rules
Angles are measured in … degrees
An acute angle is … less than 90 degrees
A right angle is …. 90 degrees
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</td></tr>
</table>

Week 8	National Curriculum Statements	<u>2D Shape</u> **Teach for Y4:** compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes **Teach for 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	Regular Irregular Sides Angles Corners Angles Triangle Quadrilateral Pentagon Hexagon Heptagon Octagon Trapezium Rhombus Parallelogram Isosceles triangle Equilateral triangle Scalene triangle Right angle triangle	
	Know Your Facts	**Pre-Teach call and response statements from Week 2 Multiplication** **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		Consolidation Week		
Week 10		Consolidation Week		