Year 6 Non-negotiables.

Number Place Value and Fractions	- Identify the value of each digit to three decimal places. - Read, write, order and compare numbers up to 10,000,000. - Recall and use equivalences between simple fractions, decimals and percentages. - Add & subtract fractions with different denominations & mixed numbers, by using equivalent fractions. - Divide proper fractions by whole numbers (e.g. 1/3 / 2 = 1/6) - Multiply and divide numbers by 10, 100 & 1000 where the answers are up to 3 decimal places. - Multiply simple proper fractions, writing the answer in its simplest form (e.g. 1/4 x 1/2 = 1/8) - Use common factors to simplify fractions & use common multiples to express fractions in the same denomination. - Use negative numbers in context, calculating across zero.
Calculations	- Calculate mentally, including with mixed operations and large numbers. - Solve multi step problems involving any operation using formal methods - Divide numbers up to 4 digits by any 2-digit whole number using a written method. - Multiply numbers up to 4 digits (including decimals) by a 2-digit whole number using a written method. - Use knowledge of the order of operations to carry out calculations involving the 4 operations.
Measurement and Geometry	- Find unknown angles in any triangles, quadrilaterals & regular polygons. - Find unknown angles where they meet at a point, are on a straight line & are vertically opposite. - Solve problems involving the calculation & conversion of units of measure, using decimal notation to 3 decimal places when needed. - Calculate the area of parallelograms (and triangles).

	- **Compare & classify geometric shapes based on their properties & size, finding unknown angles.**
	- **Describe positions on the full co-ordinate grid (all 4 quadrants).**
	- **Draw and translate simple shapes & reflect them in the axes.**
	- **Recognise when it is necessary to use the formulae for area & volume of shapes.**
Statistics	- **Calculate and interpret the mean as an average.**
	- **Construct and interpret line graphs.**
	- **Construct and interpret pie charts.**
Ratio, Proportion and Algebra	- **Solve problems involving the calculation of percentages and fractions of whole numbers, such as 15% of 360.**
	- **Use simple formulae expressed in words and substitute values into simple formula to solve problems**
	- **Express missing number problems algebraically.**
	- **Solve ratio & proportion problems involving the relative sizes of 2 quantities including similarity.**
	- **Solve ratio and proportion problems involving unequal sharing and grouping.**