Year 6	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	**Number: Place Value** I can read, write and represent numbers to 10,000,000 and determine the value of each digit. I can compare and order any number up to 10 000 000. I can round any whole number to a required degree of accuracy I can use negative numbers in context, and calculate intervals across zero		**Number: Addition, Subtraction, Multiplication and Division** I can add and subtract integers. I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 giving answers up to 3 decimal places. I can multiply up to 4 digits by a two-digit whole number using the formal written method of long multiplication. I can divide using factors (mental methods and short division). I can divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. I can identify common factors, common multiples and prime numbers. I can explore the order of operations using brackets; for example, 2 + 1 x 3 = 5 and (2 + 1) x 3 = 9 I can perform mental calculations, including with mixed operations, large numbers and applying knowledge of known facts. I can apply my knowledge of squared and cubed numbers to explore the relationship between them. **I can estimate to check answers to calculations to help determine an appropriate degree of accuracy (throughout all operations).**			**Number: Fractions** I can use common factors to simplify fractions. I can use common multiples to express fractions with the same denominator. I can compare and order fractions, including fractions > 1 using the denominator. I can compare and order fractions, including fractions > 1 using the numerator. I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. I can multiply fractions by integers. I can multiply simple pairs of proper fractions, writing the answer in its simplest form. I can divide proper fractions by whole numbers. I can associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,3/8]. I can find fractions of an amount. I can find the whole, if I know the value of the fraction (e.g. if ¼ is 80g, what is the whole?)		Geometry: Position and Direction
	Representations and structure Part part whole, bar model, number track, number lines, place value chart Place value counters, base 10, double-sided colour counters for negative numbers.		**Fluency** Knowledge of times tables and division facts up to 12 x 12. Automaticity of number bonds to apply to larger numbers. **Representations and structure** Part part whole, bar model, number track, number lines, place value chart Place value counters, base 10, cubes.					**Fluency** Can understand that when using equivalence, I must apply the same rule to the numerator as the denominator (and vice versa). In mixed numbers, I can understand that I add the wholes then the parts. When subtracting mixed numbers, I understand the number of parts that make the whole and that they can be used to support with subtraction when breaking the whole (e.g. 2 ¾ - 7/8 so the children would use equivalence to convert ¾ to 6/8 and recognise that 6/8 – 7/8 is not possible so they will need to use			

			one of the one wholes and add it to the 6/8 to get 14/8 to complete the subtraction. The answer would be 1 7/8). Can count in fractions. Can understand that when the numerators and denominators are the same, this is equal to one whole. Can understand that when comparing unit fractions the smaller the denominator, the larger the fraction (e.g. ½ > 1/3). Can understand that when the denominators are the same, normal rules of arithmetic apply (e.g. 3/7 + 2/7 = 5/7) When comparing fractions, I can use what I already know (rather than always resorting to equivalence). Can fluently apply times table and division fact knowledge when finding equivalence and simplifying fractions. When the integer is divisible by the numerator, I can divide (rather than reciprocal method). **Representations and structure** Bar model, shape, non-examples and examples (e.g. not two equal parts, compared to two equal parts), number line (with pictorial representations and fraction form), part part whole.	

Year 6	1	2	3	4	5	6	7	8	9	10	11	12
Spring	Consolidate	**Number: Decimals** I can read, write and order up to three decimal places. I can multiply by 10, 100 and 1,000. I can divide by 10, 100 and 1,000. I can multiply one-digit numbers with up to two decimal places by whole numbers. I can divide one-digit numbers with up to two decimal places by whole numbers. I can use written division methods in cases where the answer has up to two decimal places. I can recall and use equivalences between simple fractions and decimals.		**Number: Percentages** I can convert fractions to percentages. I can recognise equivalent FDPs. I can order FDP. I can find percentages of an amount. I can find the missing value.		**Number: Algebra** I can find and express a one-step rule. I can find and express a two-step rule. I can form expressions using algebra. I can use symbols and letters for substitution. I can use formulae. I can form equations. I can solve one step equations. I can solve two step equations. I can find pairs of numbers that satisfy an equation with two unknowns I can generate and describe linear number sequences.		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		**Number: Ratio** I can understand the language of ratio. I can make links between fractions and ratio. I can recognise the symbol for ratio. I can use scale factors. I can calculate scale factors. I can solve ratio and proportion problems.	Statistics

		Fluency Know that the decimal place is a fixed point to the right of the ones. When multiplying by 10, 100 or 1,000 the digits move to the left (the 0 place value holders tell you the number of place value columns to move). When dividing by 10, 100 or 1,000 the digits move to the right (the 0 place value holders tell you the number of place value columns to move). **Representations and structure** Bar model, shape, non-examples and examples (e.g. not two equal parts, compared to two equal parts), number line (with pictorial representations and fraction form), part part whole, hundred grid, place value model, dienes, rods and flats, rulers and tape measures, money.	**Fluency** Understand that percentage means part per 100. Use understanding of finding ½, ¼, 1/10 and make links to percentages (e.g. 50% = ½). **Representations and structure** Bar model, shape, non-examples and examples (e.g. not two equal parts, compared to two equal parts), number line (with pictorial representations and fraction form), part part whole, hundred grid, place value model, dienes, rods and flats.	**Fluency** Understand that for each number they put into a function machine, there is an output. Know to "work backwards" to find the input given the output. Know inverse operations. Fluency of all four number operations. **Representations and structure** Table, function machines, counters, cubes, bar model, shape.			**Fluency** Understand that a ratio shows the relationship between two values and can describe how one is related to another. Know that the colon symbol links to the language 'for every…, there are…' Apply multiple knowledge to scaling (e.g. five times as big). **Representations And structure** Bar model, counters, cubes, shape.	

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Summer	Geometry: Properties of Shapes		SATs Preparation									