

Sharks	Year 6		
Autumn Term	Spring Term	Summer Term	
<p>Number, place value and rounding.</p> <ul style="list-style-type: none"> ➤ Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. ➤ Round any whole number to a required degree of accuracy. <p style="text-align: center;">On-going.</p> <ul style="list-style-type: none"> ➤ Solve numbers and practical problems that involve all of the above. 	<p>Number, place value and rounding</p> <ul style="list-style-type: none"> ➤ Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. ➤ Round any whole number to a required degree of accuracy. ➤ Use negative numbers in context, and calculate intervals across zero. <p style="text-align: center;">On-going.</p> <ul style="list-style-type: none"> ➤ Solve numbers and practical problems that involve all of the above. 	<p>Number, place value and rounding</p> <ul style="list-style-type: none"> ➤ Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. ➤ Round any whole number to a required degree of accuracy. ➤ Use negative numbers in context, and calculate intervals across zero. <p style="text-align: center;">On-going.</p> <ul style="list-style-type: none"> ➤ Solve numbers and practical problems that involve all of the above. 	
<p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> ➤ Use common factors to simplify fractions; use common multiples to express fractions in the same denominations. ➤ Compare and order fractions, including fractions >1. ➤ Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. ➤ Solve problems which require answers to be rounded to specified degrees of accuracy. 	<p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> ➤ To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. ➤ Associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375) for a simple fraction (for example, $\frac{3}{8}$) ➤ Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) ➤ Divide proper fractions by whole numbers (for examples, $\frac{1}{3} \div 2 = \frac{1}{6}$) ➤ Multiply one-digit numbers with up to two decimal places by whole numbers. ➤ Use written methods in cases where the answer has up to two decimal places. ➤ Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 	<p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> ➤ To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. ➤ Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) ➤ Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ➤ Use common factors to simplify fractions; use common multiples to express fractions in the same denominations. 	
<p style="text-align: center;">Addition and Subtraction</p> <ul style="list-style-type: none"> ➤ Perform mental calculations, including with mixed operations and large numbers. ➤ Solve addition and subtraction multi-step problems in contexts, deciding which operations 	<p style="text-align: center;">Addition and Subtraction</p> <ul style="list-style-type: none"> ➤ Perform mental calculations, including with mixed operations and large numbers. ➤ Solve addition and subtraction multi-step problems in contexts, deciding which operations 	<p style="text-align: center;">Addition and Subtraction</p> <ul style="list-style-type: none"> ➤ Perform mental calculations, including with mixed operations and large numbers. ➤ Solve addition and subtraction multi-step problems in contexts, deciding which operations 	

<p>and methods to use and why.</p> <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 	<p>and methods to use and why.</p> <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 	<p>and methods to use and why.</p> <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
<p style="text-align: center;">Multiplication and Division</p> <ul style="list-style-type: none"> ➤ Multiply multi-digit numbers up to 4 digits by a two-digit whole numbers using the formal written method of long multiplication. ➤ 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. ➤ Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to context. ➤ Identify common factors, common multiples and prime numbers. <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use their knowledge of the order of operations to carry out calculations involving the four operations. ➤ Solve problems involving addition, subtraction, multiplication and division. 	<p style="text-align: center;">Multiplication and Division</p> <ul style="list-style-type: none"> ➤ Identify common factors, common multiples and prime numbers. ➤ Multiply multi-digit numbers up to 4 digits by a two-digit whole numbers using the formal written method of long multiplication. ➤ 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. ➤ Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to context. <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use their knowledge of the order of operations to carry out calculations involving the four operations. ➤ Solve problems involving addition, subtraction, multiplication and division. 	<p style="text-align: center;">Multiplication and Division</p> <ul style="list-style-type: none"> ➤ Multiply multi-digit numbers up to 4 digits by a two-digit whole numbers using the formal written method of long multiplication. ➤ 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. <p style="text-align: center;">On-going</p> <ul style="list-style-type: none"> ➤ Use their knowledge of the order of operations to carry out calculations involving the four operations. ➤ Solve problems involving addition, subtraction, multiplication and division.
<p style="text-align: center;">Ratio and Proportion</p>	<p style="text-align: center;">Ratio and Proportion</p>	<p style="text-align: center;">Ratio and Proportion</p> <ul style="list-style-type: none"> ➤ Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparisons. ➤ 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 similar shapes where the scale factor is known or can be found. ➤ Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

<p style="text-align: center;">Algebra</p>	<p style="text-align: center;">Algebra</p> <ul style="list-style-type: none"> ➤ Use simple formulae ➤ Express missing number problems algebraically ➤ Find pairs of numbers that satisfy an equation with two unknowns. ➤ Enumerate all possibilities of combinations of two variables. 	<p style="text-align: center;">Algebra</p> <ul style="list-style-type: none"> ➤ Use simple formulae ➤ Express missing number problems algebraically ➤ Find pairs of numbers that satisfy an equation with two unknowns. ➤ Enumerate all possibilities of combinations of two variables. ➤ Generate and describe linear number sequences.
<p style="text-align: center;">Measures</p> <ul style="list-style-type: none"> ➤ Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. ➤ Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places. ➤ Convert between miles and kilometres. ➤ Recognise that shapes with the same areas can have different perimeters and vice versa. ➤ Recognise when it is possible to use formulae for area and volume of shapes. ➤ Calculate the area of parallelograms and triangles. ➤ Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metre (m^3) and extending to other units such as mm^3 and km^3. 	<p style="text-align: center;">Measures</p> <ul style="list-style-type: none"> ➤ Recognise that shapes with the same areas can have different perimeters and vice versa. ➤ Recognise when it is possible to use formulae for area and volume of shapes. ➤ Calculate the area of parallelograms and triangles. ➤ Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metre (m^3) and extending to other units such as mm^3 and km^3. 	<p style="text-align: center;">Measures</p> <ul style="list-style-type: none"> ➤ Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. ➤ Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places. ➤ Convert between miles and kilometres.
<p style="text-align: center;">Geometry: properties of shapes</p> <ul style="list-style-type: none"> ➤ Illustrate and name parts of circles, including radius, diameter and circumferences and know that the diameter is twice the radius. ➤ Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. ➤ Draw 2D shapes using given dimensions and angles. ➤ Recognise, describe and build simple 3D shapes, including making nets. ➤ Compare and classify geometric shapes based on 	<p style="text-align: center;">Geometry: properties of shapes</p>	<p style="text-align: center;">Geometry: properties of shapes</p> <ul style="list-style-type: none"> ➤ Illustrate and name parts of circles, including radius, diameter and circumferences and know that the diameter is twice the radius. ➤ Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. ➤ Draw 2D shapes using given dimensions and angles. ➤ Recognise, describe and build simple 3D shapes, including making nets. ➤ Compare and classify geometric shapes based on

their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.		their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
Geometry: position, direction, motion. ➤ Describe position on the full coordinate grid (all four quadrants) ➤ Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	Geometry: position, direction, motion. ➤ Describe position on the full coordinate grid (all four quadrants) ➤ Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	Geometry: position, direction, motion.
Statistics ➤ Interpret and construct pie charts and line graphs and use these to solve problems. ➤ Calculate and interpret the mean as an average.	Statistics	Statistics ➤ Interpret and construct pie charts and line graphs and use these to solve problems. ➤ Calculate and interpret the mean as an average.

Old Curriculum – Probability, rotation, Medium/mode/range (moved to KS3)

- Use decimal notation for tenths, hundredths and thousandths, partition and order numbers with up to three decimal places, and position them on a number line (now in Y5)
- Express a larger whole number as a fraction of a smaller one; simplify fractions; order a set of fractions by converting them to fractions with a common denominator (now in LKS2)
- Use knowledge of multiplication facts to devise quickly squares of numbers to 12 x 12 (now in LKS2)
- Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of whole two-digit numbers (now in Y5)
- Find fractions and percentages of whole-number quantities, eg 5/8 of 96, 65% of £260 (now in LKS2)
- Use calculators to solve multi-step problems (moved to KS3)
- Use coordinates if the first quadrant to draw and locate shapes (now in Y4)
- Measure and calculate using imperials units still in everyday use; know their approximate equivalent metric value (now in Y5)
- Calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares (now in Y4/5)