

Subject Name:	Maths
Curriculum Intent Statement	
<p>Our curriculum will encourage pupils to be efficient, resilient problem solvers, able to apply their mathematical skills to any real life context they encounter after leaving the academy.</p> <p>Through learning mathematics, our pupils will develop the logical thinking skills to break problems in a wide range of contexts into manageable steps. Pupils will embrace the interconnected nature of the concepts within mathematics and how mathematics can be applied to contexts within everyday life, academia and careers. Their mathematical skills and knowledge will open doors for our pupils to select whichever future path they choose.</p>	
Autumn Term 1	
<p>Number and place value</p> <ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10 000 000 • Round any whole number • Use negative numbers in context • Solve number and practical problems <p>Addition and subtraction</p> <ul style="list-style-type: none"> • Solve addition and subtraction multi-step problems in contexts • Solve problems involving addition, subtraction, multiplication and division • Use estimation to check answers <p>Multiplication and division</p> <ul style="list-style-type: none"> • Multiply multi-digit numbers up to 4 digits by a two-digit whole number • Divide numbers up to 4 digits by a two-digit whole • Perform mental calculations, including with mixed operations and large numbers • Identify common factors, common multiples and prime numbers <p>Time</p> <ul style="list-style-type: none"> • Time duration problems • Converting units of time 	

Autumn Term 2

Fractions, decimals and percentages

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions
- Add and subtract fractions with different denominators and mixed numbers
- Multiply simple pairs of proper fractions
- Divide proper fractions by whole numbers

Shape

- Draw 2-D shapes using given dimensions and angles
- Recognise, describe and build simple 3-D shapes
- Find unknown angles in any triangles, quadrilaterals, and regular polygons
- Illustrate and name parts of circles, including radius and diameter
- Recognise angles and find missing angles.

Length and money

- Solve problems involving the calculation and conversion of units
- Use, read, write and convert between standard units
- Convert between miles and kilometres

Volume, capacity and mass

- calculate, estimate and compare volume of cubes and cuboids

Statistics

- Interpret and construct pie charts and line graphs
- Calculate and interpret the mean as an average

Spring Term 1

Fractions, decimals and percentages

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions
- Add and subtract fractions with different denominators and mixed numbers
- Multiply simple pairs of proper fractions
- Divide proper fractions by whole numbers

Four operations

- Solve addition and subtraction multi-step problems in contexts
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number
- Divide numbers up to 4 digits by a two-digit whole

Algebra

- Use simple formulae
- Generate and describe linear number sequences
- Express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with two unknowns

Spring Term 2

Four operations

- Solve addition and subtraction multi-step problems in contexts
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number
- Divide numbers up to 4 digits by a two-digit whole

Time

- Time duration problems
- Converting units of time

Position and direction

- Describe positions on the full coordinate grid
- Draw, reflect and translate simple shapes on the coordinate plane

Shape

- Draw 2-D shapes using given dimensions and angles
- Recognise, describe and build simple 3-D shapes
- Find unknown angles in any triangles, quadrilaterals, and regular polygons
- Illustrate and name parts of circles, including radius and diameter
- Recognise angles and find missing angles.

Ratio and proportion

- Solve problems involving the calculation of percentages [
- 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.

Summer Term 1

Number and place value

- Read, write, order and compare numbers up to 10 000 000
- Round any whole number
- Use negative numbers in context
- Solve number and practical problems

Money

- Solve problems involving money, using the four operations

Algebra

- Use simple formulae
- Generate and describe linear number sequences
- Express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with two unknowns

Fractions, decimals and percentages

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions
- Add and subtract fractions with different denominators and mixed numbers
- Multiply simple pairs of proper fractions
- Divide proper fractions by whole numbers

Ratio and proportion

- Solve problems involving the calculation of percentages [
- 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.

Statistics

- Interpret and construct pie charts and line graphs
- Calculate and interpret the mean as an average

Summer Term 2

Four operations

- Solve addition and subtraction multi-step problems in contexts
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number
- Divide numbers up to 4 digits by a two-digit whole

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- Illustrate and name parts of circles, including radius and diameter
- Recognise angles and find missing angles.

Volume, capacity and mass

- Calculate, estimate and compare volume of cubes and cuboids
- Solve problems involving volume, capacity and mass

Length and money

- Solve problems involving the calculation and conversion of units
- Use, read, write and convert between standard units
- Convert between miles and kilometres