



Key Stage: Year 7 set 4 and 5, Year 8 set 5

Subject: Mathematics

Aims of the subject:

We aim to develop the full potential of every pupil in Mathematics. We aim to ensure that every pupil experiences success and enjoyment in the subject whether it be equipping them with sufficient Mathematics skills for their day to day life or providing them with a firm foundation for those wishing to pursue Mathematics beyond GCSE. In addition, we hope that we can open our young people's eyes to the creative, imaginative and inspiring world of Mathematics.

The Mathematics scheme of learning is divided into units of study consisting of interlinking skills and topics. For each unit of study, pupils will complete a 'common homework', a spelling test and a mini assessment. The 'common homework' will be completed by all the students following this scheme of learning and may take the form of a written task or an online task vlemathswatch or ActiveLearn. In addition to the common homework, pupils will receive homework set by their class teacher. The mini assessment will provide an opportunity for pupils to demonstrate their ability to recall basic information or perform simple procedures, apply their mathematical understanding to problem solving and contextual problems and to recall information studied in previous units of work.

Year 7

		What will I learn?	What will I do?
Term 1	Unit 1	<ul style="list-style-type: none"> • Read, write and understand the place value of integers and decimals • Compare and order integers and decimals • Understand negative numbers in context • Compare and order negative numbers • Round numbers to the nearest 10, 100 and 1000 • Round numbers to the nearest 1, 2 and 3 decimal places 	Common Homework Multiple Choice Quiz

	Unit 2	<ul style="list-style-type: none"> • Add and subtract numbers and decimals of any size mentally and using a formal written method • Solve problems involving money and other contextual questions • Measure a line correct to the nearest millimetre • Find the perimeter of a shape by counting squares or using a ruler • Find the perimeter of a shape • Find the length of a rectangle given information about the perimeter 	Common Homework Multiple Choice Quiz
Term 2	Unit 3	<ul style="list-style-type: none"> • Multiply by 10, 100 and 1000 • Multiply and divide integers mentally and using a formal written method • Understand square numbers up to 12×12 and their associated roots • Apply BIDMAS to solve calculations involving more than one operation • Identify factors, multiples and primes of a number • Find the area of a 2D shape by counting squares • Find the area of a rectangle using the formula • Find the missing length of a rectangle using information about the area 	Common Homework Multiple Choice Quiz
	Unit 4	<ul style="list-style-type: none"> • Represent fractions on a number line and on a diagram • Express a quantity as a fraction of another • Find equivalent fractions • Convert between mixed and improper fractions • Simplify fractions • Convert between simple fractions, decimals and percentages • Find a fraction of an amount • Add and subtract fractions with a common denominator or when a single fraction needs to be rewritten 	Common Homework Multiple Choice Quiz
Term 3	Unit 5	<ul style="list-style-type: none"> • Use and understand terms such as parallel, perpendicular, vertex, edge, face • Identify lines of symmetry on a 2D shape • Identify the order of rotational symmetry of a 2D shape • Classify the properties of triangles and quadrilaterals • Identify types of angles e.g. acute, obtuse, reflex etc • Measure and draw acute and obtuse angles using a protractor • Estimate acute and obtuse angles • Know and use angles facts such as vertically opposite angles, angles on a straight line and angles in a triangle 	Common Homework Multiple Choice Quiz

	Unit 6	<ul style="list-style-type: none"> Interpret and construct tally tables, bar charts, pictograms Calculate mode, median, mean and range for a small set of data Tell the time and solve problems involving time Complete, read and interpret time tables 	Common Homework Multiple Choice Quiz
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Note on Assessment: Pupils will sit an end of term assessment at the end of each term. This will assess the topics that have been covered within the term.

Year 8

		What will I learn?	What will I do?
Term 1	Unit 1	<ul style="list-style-type: none"> add, subtract, multiply and divide negative numbers substitute negative numbers into an expression or formula simplify algebraic expressions (incl. collecting like terms) plot a coordinate draw a linear graph solve an equation e.g $4x - 3 = 25$ 	Common Homework Multiple Choice Quiz
	Unit 2	<ul style="list-style-type: none"> find equivalent fractions simplify fractions put a list of positive/negative fractions in size order add and subtract fractions multiply fractions divide fractions write a number as fraction of another number calculate a fraction of an amount 	Common Homework Multiple Choice Quiz
Term 2	Unit 3	<ul style="list-style-type: none"> put a list of positive/negative decimals in order of size add and subtract whole numbers and decimals multiply whole numbers and decimals divide whole numbers and decimals apply your knowledge of calculating with integers and decimals to problems involving a real life problem 	Common Homework Multiple Choice Quiz

	Unit 4	<ul style="list-style-type: none"> • distinguish between different types of angles • use three letter notation to describe angles • measure angles, correct to the nearest degree, using a protractor • draw angles, correct to the nearest degree • make an accurate drawing of a triangle and other 2D shapes • find missing angles using the angle properties on a straight line, around a point and vertically opposite • find missing angles using the fact that angles in a triangle add up to 180^0 and the angle properties of special triangles • find missing angles using the fact that angles in a quadrilateral sum to 360^0 	Common Homework Multiple Choice Quiz
	Unit 5	<ul style="list-style-type: none"> • convert between equivalent fractions, decimals and percentages • express a number as a percentage of another number • compare quantities using percentages • calculate 50%, 25%, 10%, 75% of an amount 	Common Homework Multiple Choice Quiz
Term 3	Unit 6	<ul style="list-style-type: none"> • interpret and draw bar charts, dual charts and vertical line graphs • interpret and draw a pictogram • calculate the mean, median, mode and range of a set of data • use the language of probability and understand a probability scale from 0 to 1 • calculate probabilities using a fraction, decimal or percentage • calculate the probability not happening 	Common Homework Multiple Choice Quiz
	Unit 7	<ul style="list-style-type: none"> • identify factors, multiples and primes • work out the square numbers and square roots up to 15×15 • work out the cube numbers and cube roots of 1, 2, 3, 4, 5 and 10 • work out the answer to a calculation involving more than one operation • generate a sequence given a rule • use a calculator effectively • simplify a ratio • divide an amount into a given ratio • solve simple direct proportion problems 	Common Homework Multiple Choice Quiz

	Unit 8	<ul style="list-style-type: none"> draw lines of symmetry on a 2D shape identify the order of rotational symmetry of a 2D shape complete a pattern/shape given information about reflective/rotational symmetry define the words parallel and perpendicular describe special triangles and quadrilaterals using the properties of the shape calculate the area and perimeter of compound shapes use the formula for area of a parallelogram use the formula for area of a triangle 	Common Homework Multiple Choice Quiz
Term 3	Unit 9	<ul style="list-style-type: none"> name 3D shapes calculate the volume of cubes and cuboids draw the net of a cube/cuboid calculate the surface area of a cube/cuboid draw and interpret the plan and elevation of a 3D shape draw a 3D shape on isometric paper convert between metric units for length 	Common Homework Multiple Choice Quiz

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Extra-curricular opportunities

- Enter the Half-Termly Maths Competition

How you can support your child's progress

- Practise mental maths skills i.e. addition, subtraction, multiplication and division
- Seek real life opportunities to challenge your child's mathematical knowledge for example calculating best buys, calculating how many pots of paint required to decorate a room etc.