## INTENT

Our curriculum is taught for a deep understanding of mathematical knowledge and skills. It provides opportunities to make important links between topics and across subjects, with topics being revisited regularly and prior knowledge built upon. At the heart lies a strong foundation of numeracy from which all topics are developed.

## **Impact**

Linking topics and subjects through mathematics prepares students not only for the more challenging GCSE examinations, but also for the many and varied career opportunities that await them. It also aims to equip everyone with the numeracy and mathematics needed to survive and thrive in everyday life. It also aims to equip everyone with the numeracy and problem-solving skills needed to cope with the demands of everyday life.

## **Lifelong Opportunities**

Careers directly related to mathematics include accountancy, actuarial services, data analysis, engineering, statistics and astronomy. Those where mathematics would be useful include finance, marketing, game design, quantity surveying, software testing, meteorology, and retail. For any self-employed person, having fluent numeracy skills is essential in order to ensure you are able to make sound business decisions and your business makes a profit.

## **MATHEMATICS** Further application of number, algebra, proportio Geometry and geometry **Proportions and** Delving into data **Expressions** Using number proportional change ഗ How can I apply the skills I Ш S How can I apply angle have learnt to more complex How do I use proportions E N How do Luse non-calculato knowledge to solve comple How do I calculate with scenarios? low do I collect, represe and probability to solve methods to solve complex problems? and interpret data? algebraic fractions? everyday problems? Ш arallel and perpendicular line STE ES **YEAR 11** on-linear graphs, using graphs change the subject, solve epeated percentage Bearings, angles, circle quadratics change, best buys, financial maths, estimations, charts tables stem and leaf theorems, vectors algebraic fractions, フ HR oining ratios, condition ts of accuracy, sequence distributions sequences, surds probability, tree and Venn ယ diagrams Developing algebra **Reasoning with Proportion Similarity** Reasoning with geometry Representations 4 $\alpha$ How do I represent solutions of How do I identify and apply the How do I rotate and translate a How can I use diagrams to work ш equations and inequalities, and How do we apply proportional concept of similarity when ш ш shape, and find missing lengths out probabilities and represent solve simultaneous equations? calculating missing lengths and angles? methods to find ratios and rates? using Pythagoras' theorem? equations? YEAR 10 ΠÍ ĬΠ Solving equations and EM EM relative frequency, expected Conjectures, Pythagoras' similarity, enlargements. outcome independent events speed and rates, ratios solving simultaneous equations congruence, trigonometry theorem, rotations, translations quadratic graphs S S Reasoning with Data Constructing in 2 and Reasoning with Reasoning with Algebra 3 dimensions Types of number number ഗ S S E S Ш How can I display and interpret How do I write the equation of a П ow do I calculate the volume and How do I solve problems using How can I use percentages data in order to draw ne and solve complex equations surface area of 3D shapes, and different types of numbers? conclusions? problems? construct 2D shapes and loci? П S S YEAR 9 C Unknowns on both sides rearranging formulae, gradient, Questionnaires, charts, range, Integers and decimals. v=mx+c, conjectures. П compound interest simple Volume, surface area, plans averages Ш HCF, LCM, 4 operations with terest, tax and wages, exchange elevations, nets, loci, bisectors ス Z R rates N ယ **Developing Geometry Developing Number Algebraic Techniques Proportional reasoning** Representations က How do I use equations How can I use different number low can I calculate areas, lengths ER ER ER Where does proportional reasoning occur and how can we inequalities and expressions to 出 formats in everyday life? and angles in complex shapes? model and solve more complex using graphs and tables? ш use it to solve problems? EST S ш ш Parallel line angles, polygons, Ratio and scale. $\overline{\mathbb{Z}}$ $\sum_{i}$ Graphs, equations of lines, tables, trapezia, circles, reflections EΝ Multiplicative change Percentage increase and decrease probability Algebraic manipulation, solving Multiplying and dividing fractions ш standard form equations and inequalities money, metric conversions S S S

