BEIS YAAKOV JEWISH HIGH SCHOOL ACADEMY

Maths Programme of Study 2024-25

Our Five-Year Curriculum

At BYJHS, we want our students to experience an engaging, high quality, and challenging Maths education, in which our students develop an enthusiasm for and deep theoretical understanding of Mathematics and its relevance to the world around them. We believe success in mathematics is possible for **every** student. Our curriculum vision for Mathematics is to ensure our students:

- become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- can reason mathematically by following a line of enquiry, conjecturing relationships, and generalisations, and developing an argument, justification or proof using mathematical language.
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and preserving in seeking solutions.
- can communicate, justify, argue and prove using mathematical vocabulary.
- use their mathematical problem-solving skills independently within the wider context by experiencing that mathematics is all around, and they can use these mathematical skills to be financially and numerically literate to make sound mathematical decisions in their personal life and the ever-changing world of work.
- develop their character, including resilience, growth mindset, confidence, and independence; encouraging our students to become successful learners and mathematicians who attempt questions in new contexts and learn the importance of making and learning from mistakes and strive for improvement.

MATHS CURRICULUM AREA STAFF 23- 24

Mrs E Tachauer Head of STEM
Mrs R Rosenzweig
Mrs E Lockwood
Mrs Stern

Should you require more information about this subject area please contact:

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CURRICULUM MAP

SUBJECT	YEAR GROUP	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Maths	**Y7**	Topic 1: Sequences Topic 2: Introduction to Algebra	Topic 3: Number – Place value	Topic 4: Number – Fractions, decimals and percentages Topic 5: The four operations Topic 6: Prime number and proof	Topic 7: Directed Number Topic 8: Addition and subtraction Fractions	Topic 9: Geometry – construction, measurement and notation Topic 10: Developing geometric reasoning	Topic 11: Sets and probability
	Y8	Topic 1: Ratio and scale Topic 2: Multiplicative change Topic 3 : End of Term Review	Topic 4: Working in the cartesian plane	Topic 5: Algebra Topic 6: Sequences and Indices	Topic 7: Fractions and Percentages Topic 8: Standard Form and Number sense	Topic 9: Geometry – Angles Topic 10: Area of 2D shapes	Topic 11: Transformations – Reflections and Translation Topic 12: Exams and review of key learning objectives of the year
	Y9	TOPIC 1: REVIEW of STRAIGHT-LINE GRAPHS Topic 2: ALGEBRA	TOPIC 3: GEOMETRY – 3D shapes	TOPIC 5: NUMBER SENSE	TOPIC 7: GEOMETRY – Deduction, Pythagoras and trigonometry	TOPIC 9: STATISTICS Handling Data and Averages and Spread	TOPIC 10: PROBABILITY Topic 11: End of KS3 Review

			Topic 4: Constructions and Congruency LOCI	Topic 6: Number – Percentages – all pupils Maths and Money – Higher	Topic 8: Transformations – Enlargement and similarity, rotations		
	Y10	TOPIC 1: Number – Calculations Topic 2: Algebra - Expressions	TOPIC 3: Geometry – Angles and polygons	TOPIC 4: Algebra – Formulae and functions TOPIC 5: Algebra – Equations and inequalities	TOPIC 6: Fractions decimals and percentages TOPIC 7: Geometry: working in 2D	TOPIC 8: Measures and Accuracy TOPIC 9: Geometry – working in 3D	TOPIC 10: Ratio and proportion
	Y11	TOPIC 1: Number – Factors, Powers and Roots Topic 2: Geometry – Pythagoras and Trigonometry	Topic 3 Algebra – Straight line and quadratic graphs	TOPIC 4: Algebra – Sequences TOPIC 5: Geometry – circle theorems and loci	TOPIC 6: Revision	TOPIC 7: Revision	