

Pre-IB Maths Course

Topics include: Number, Algebra, graphs, statistics, probability, units and ratio

Content Overview/Topics:

Session	Week Commencing	Topic	Comment & Resources
1	May 5, 2022	Number	Fraction arithmetic Surds
2	May 5, 2022	Number	Indices Vectors
3	May 12, 2022	Algebra	Substitution Expanding brackets
4	May 12, 2022	Algebra	Factorising Solving equations
5	May 19, 2022	Algebra	Simultaneous equations Changing the subject
6	May 19, 2022	Algebra	Working with functions Quadratics – all aspects
7	May 26, 2022	Graphs	Straight line graphs Quadratics Inequality graphs
8	May 26, 2022	Graphs	Different graph shapes Graph transformations
9	June 2, 2022	Trigonometry	Pythagoras SOHCAHTOA Exact trig values, trig curves
10	June 2, 2022	Trigonometry	Sine rule, cosine rule, triangle area
11	June 9, 2022	Statistics: Data	Sampling Data types Averages and spread
12	June 9, 2022	Statistics: Data	Histograms Cumulative frequency
13	June 16, 2022	Probability	Venn diagrams Tree diagrams
14	June 16, 2022	Probability	Addition Law Multiplication Law
15	June 23, 2022	Mechanics	Travel graphs Forces Newton's Laws
16	June 23, 2022	Two tests	MCQs+ Structured questions

Teacher:**Ash Ellis, International Baccalaureate and Cambridge (IBDP/IGCSE) Programmes Head Science Teacher, Students' Projects Coordinator**

Ash is a Lead chemistry, physics and mathematics teacher with Qualified Teacher Status (QTS). Ash has two BScs degrees which shows her thirst for knowledge and Postgraduate Diploma Secondary Education and Subject Knowledge Enhancement Science/Chemistry at University of Plymouth. Ash is a prestige member of UK chartered teachers, with a proven track record of helping students achieving extraordinary results. She joined this prestigious group by studying the science of learning, where through research they are improving teaching practices in educational environments. She has taught a variety of age groups and topics including, GCSE, IGCSE, A Level Chemistry, A Level Physics and Cambridge International A Level Physics. Ash believes in training and encouraging the new generation to become lifelong learners and preparing them for the unknown future. "Nothing happens until something moves" – Albert Einstein.