Year 11
Express Curriculum

Suggested content coverage for 2020/21

As the new Year 11 students missed a significant portion of Year 10, moving directly ahead with our Year 11 scheme of learning would be challenging. For example, some topics, such as Handling Data, are not as well represented in the Year 11 content.

We have therefore produced this Year 11 'Express Curriculum' to help guide teachers towards the key topics to prepare students for their examinations and for life beyond school. We have based this on 30 weeks of teaching including one consolidation week.

We expect students who are aiming for a grade 4 to concentrate almost entirely on material in the first column. Those aiming for 5/6 should be able to cover this more quickly and also cover the material in the middle column. Those aiming for the highest grades may need to cover some of the first column, but focus mainly on the second and third columns. This is a framework, and we would expect teachers to adapt it for the particular needs of their classes, making amendments based on ongoing assessment of students' needs.

Week	Topic	Aiming for a grade 4	Aiming for a grade 5/6	Aiming for a grade 7/8/9
1 2	**Algebra 1**	• Simplifying expressions • Substitution • Solving linear equations	• Linear Inequalities and number lines • Solve quadratics by factorisation	• Completing the square
3	**Fractions, decimals and percentages**	• FDP equivalence • Calculating percentages	• Reverse percentages	• Recurring decimals
4 5	**Shape 1**	• Basic angle facts • Properties of shapes • Interior and exterior angles	• Bearings	• Circle theorems

Week	Topic	Aiming for a grade 4	Aiming for a grade 5/6	Aiming for a grade 7/8/9
6 7	**Number 1**	• Four rules with integers and fractions • Rounding and Estimation • Directed number arithmetic	• Roots and indices • Limits of accuracy	• Fractional indices • Upper and lower bounds
8 9	**Graphs**	• Plot $y = mx + c$ • Interpret real-life graphs • Plot quadratics	• Parallel lines • Find the equation of a line • Cubic and reciprocal graphs	• Perpendicular lines
10 11	**Ratio and Proportion**	• Simplify ratios • Share in a ratio • Direct proportion	• Use fractions in ratios • Density and pressure • Inverse proportion	• Equations with proportion • Gradients of curves
12 13	**Shape 2**	• Perimeter and Area of 2-D shapes • Volume and Surface Area of prisms	• Arc length and the area of a sector. • Volume of cones etc. • Plans and elevations	
14	**Consolidation**			

Week	Topic	Aiming for a grade 4	Aiming for a grade 5/6	Aiming for a grade 7/8/9
15 16	**Data**	• Finding averages • Charts and graphs • Recognise correlation	• Cumulative frequency graphs • Box plots • Lines of best fit	• Histograms
17 18	**Algebra 2**	• Laws of Indices • Linear sequences • Changing the subject of a formula	• Quadratic sequences • Factorise quadratics	• Geometric sequences • Complex changing the subject of a formula • Proof Functions
19 20	**Pythagoras and Trigonometry**	• Find sides using Pythagoras • Find sides and angles using trig ratios	• Use trig in 3-D	• Use sine and cosine rules • Find the area of triangles using A = 1/2 ab sin C
21	**Probability**	• Single event probability • Listing outcomes	• Tree diagrams - independent events	• Dependent events • Conditional probability
22 23	**Number 2**	• Calculate with percentages • Convert to/from standard form • Product of prime factors	• Compound interest • Growth and decay • Calculate with standard form	• Surds

Week	Topic	Aiming for a grade 4	Aiming for a grade 5/6	Aiming for a grade 7/8/9
24 25	**Transformations**	• Perform reflections, rotations, translations and positive enlargements	• Negative and fractional enlargements • Identify and describe transformations	• Transform graphs (include trig graphs here)
26	**Constructions**	• Construct triangles	• Construct bisectors	• Loci
27 28	**Algebra 3**	• Simultaneous linear equations • Read solutions from graphs	• Simultaneous equations, one linear, one quadratic	• Quadratic inequalities • Iteration
29	**Vectors**	• Add and subtract vectors	• Multiply vectors by scalars	• Proof with vectors
30	**Similarity**	• Find missing sides in similar shapes • Understand congruency	• Solve complex similar triangles problems • Recognise congruent triangles	• Solve problems with similar areas and volumes • Prove triangles are congruent