



**ST IVO
ACADEMY**

Astrea Academy Trust
INSPIRING BEYOND MEASURE

Curriculum Map: Maths

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Types of number Place value Decimals Rounding Number operations	Number: Measure. Directed numbers. Perimeter . Area. Frequency trees. Timetables . LCM/HCF.	Fractions Algebra	More algebra Sequences	Lines and angles Fractions, decimal, percentage	Probability Venn 2 way tables EOY assessment. Cumulative
Year 7 High Ability	Number: As above and Powers and indices Standard form	Number: As above and	As above and Functions graphically	As above and Generate sequences	As above	As above EOY assessment. Cumulative
Year 8	Number Area and volume	Statistics, graphs and charts Expressions and equations Units 1-4 test	Real life graphs Decimals and ratio	Lines and angles Units 1-7 test	Calculating with fractions Straight line graphs	Fractions, decimals and percentages EOY assessment. Cumulative
Year 8 High Ability	Factors and powers Working with powers	2D and 3D solids Real- life graphs Units 1-4	Transformation s Fractions, decimals and percentages	Constructions and loci Units 1-7 test	Probability Scale drawings	Graphs EOY assessment. Cumulative

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9 Foundation	Number Algebra 1	Graphs, tables and charts Test	Fractions, decimals and percentages	Equations, inequalities and sequences Test	Angles	Averages and range Test
Year 9 Higher	Number Algebra 1	Interpreting and representing data Test	Fractions, ratio and percentages	Angles and trigonometry Test	Graphs	Area and volume Test
Year 10 Foundation	Perimeter area 3D forms, surface area and volume Graphs	Transformations Ratio Test	Proportion Pythagoras and trigonometry	Probability Multiplicative reasoning Test	Plans and elevations Construction, loci and bearings	Quadratic equations and their graphs Mocks
Year 10 Higher	Accuracy and bounds Transformations, constructions and bearings	Solving quadratic and simultaneous equations Test	Probability Multiplicative reasoning	Similarity and congruence in 2D and 3D Graphs of trig functions Test	Further trigonometry Collecting and further representing data	Expanding triple brackets Graphs of circles Mocks
Year 11 Foundation	Circles, cylinders, cones and spheres Fractions and reciprocals	Indices and standard form Similarity and congruence 2D MOCKS	Vectors Rearranging equations, solving simultaneous equations, graphs	MOCKS Revision, consolidation, problem solving		
Year 11 Higher	Circle theorems Algebraic fractions & proof, functions Rationalising surds	Vectors, geometric proof Reciprocal and exponential graphs MOCKS	Direct and inverse proportion	MOCKS Revision, consolidation, problem solving		

<p>Year 12 – A level - Cohort 2022</p>	<p>Exponentials and logarithms</p> <p>Algebraic expressions Quadratics</p> <p>Data collection Measures of location & spread</p> <p>Vectors</p> <p>Displacement/time graphs and velocity time graphs</p>	<p>Equations and inequalities</p> <p>Graphs and transformations</p> <p>Straight line graphs</p> <p>Circles</p> <p>Representations of data</p> <p>Constant acceleration</p>	<p>Circles</p> <p>Differentiation</p> <p>Correlation</p> <p>Probability</p> <p>Forces and motion</p>	<p>Integration</p> <p>Binomial expansion</p> <p>Statistical distributions</p> <p>Variable acceleration</p>	<p>Trigonometric ratios</p> <p>Trig identities and equations</p> <p>Hypothesis testing</p> <p>Variable acceleration</p>	<p>Trigonometry (yr 13)</p> <p>Start regressions, correlation and hypothesis testing</p> <p>Resolving forces (Yr 13)</p>
<p>Year 12 Further Maths - cohort 2022</p>	<p>Complex numbers, roots of polynomials.</p> <p>Graphs and networks.</p>	<p>Algebra and series.</p> <p>Curve Sketching.</p> <p>Critical path analysis.</p> <p>Linear programming and game theory.</p>	<p>Matrices, Vectors</p> <p>Abstract algebra.</p> <p>Group Theory (yr 13)</p>	<p>Vectors</p> <p>Integration</p> <p>Discrete and continuous distributions.</p>	<p>Matrices (yr13)</p> <p>Confidence intervals and hypothesis testing.</p>	<p>Vectors (yr13)</p> <p>Graphs and networks 2.</p> <p>Critical path analysis 2.</p>
<p>Year 13 – A level - cohort 2021</p>	<p>Radians</p> <p>Differentiation</p> <p>Integration</p> <p>Conditional probability</p> <p>Algebraic methods</p>	<p>Integration</p> <p>Normal distribution</p> <p>Resolving forces</p> <p>Projectiles</p>	<p>Parametric</p> <p>Integration and differentiation.</p> <p>Functions and graphs</p> <p>Sequences and series</p> <p>Projectiles.</p> <p>Further Kinematics</p>	<p>Functions and graphs</p> <p>Binomial</p> <p>Further kinematics</p> <p>Application of forces</p>	<p>Revision and consolidation</p>	<p>A-level Exams.</p>

Year 13 Further Maths - cohort 2021	Complex numbers 2.	Curve sketching. Matrices	Vectors and Integration	Integration and differential equations	Revision and consolidation.	A-level Exams.
	Series	Linear programming and game theory	Random Processes, hyp testing and t-tests	Numerical methods		
	Graphs and networks					
	Critical path analysis					

KEY to highlights

The map shows how the topics progress throughout the curriculum over the years.

A few of the topics are highlighted so that you can see how they map onto each other.

If you follow the green highlights, you can see how statistics in year 7 progresses from looking at basic data to hypothesis testing in year 13.