



**ST IVO  
ACADEMY**

Astrea Academy Trust  
INSPIRING BEYOND MEASURE

## Curriculum Map: Maths

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 7</b>	Types of number Place value Decimals Rounding  Number operations  Powers	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
<b>Year 8</b>	Number  Factors and powers  Working with powers	Inequalities  Algebra – brackets and solving  Angles in polygons and on parallel lines	Fractions, decimals and percentages  Ratio  Area and perimeter, inc.compound shapes	Linear graphs  Proportion  Sequences  Statistics	Scale drawings  Conversions  Surface area  Properties of 3D shapes	Constructions  Bearings  EOY assessment. Cumulative

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 9 Foundation</b>	Number  Algebra 1	Graphs, tables and charts <b>Test</b>	Fractions, decimals and percentages	Equations, inequalities and sequences  <b>Test</b>	Angles	Averages and range <b>Test</b>

<b>Year 9 Higher</b>	Number  Algebra 1	Interpreting and representing data  Test	Fractions, ratio and percentages	Angles and trigonometry  Test	Graphs	Area and volume  Test
<b>Year 10 Foundati on</b>	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
<b>Year 10 Higher</b>	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
<b>Year 11 Foundati on</b>	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		
<b>Year 11 Higher</b>	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		
<b>Year 12 – A level - Cohort 2022</b>	Exponentials and logarithms  Algebraic expressions Quadratics  Data collection Measures of location & spread	Equations and inequalities Graphs and transformations Straight line graphs  Circles  Representations of data	Circles Differentiation  Correlation Probability  Forces and motion	Integration  Binomial expansion  Statistical distributions  Variable acceleration	Trigonometric ratios  Trig identities and equations  Hypothesis testing  Variable acceleration	Trigonometry (yr 13)  Start regressions, correlation and hypothesis testing  Resolving forces (Yr 13)

	Vectors  Displacement/time graphs and velocity time graphs	Constant acceleration				
<b>Year 12 Further Maths - cohort 2022</b>	Complex numbers, roots of polynomials.  Graphs and networks.	Algebra and series. Curve Sketching.  Critical path analysis. Linear programming and game theory.	Matrices, Vectors  Abstract algebra. Group Theory (yr 13)	Vectors Integration  Discrete and continuous distributions.	Matrices (yr13)  Confidence intervals and hypothesis testing.	Vectors (yr13)  Graphs and networks 2. Critical path analysis 2.
<b>Year 13 – A level - cohort 2021</b>	Radians Differentiation Integration  Conditional probability  Algebraic methods	Integration  Normal distribution  Resolving forces Projectiles	Parametric Integration and differentiation. Functions and graphs  Sequences and series  Projectiles. Further Kinematics	Functions and graphs  Binomial  Further kinematics  Application of forces	Revision and consolidation	A-level Exams.
<b>Year 13 Further Maths - cohort 2021</b>	Complex numbers 2.  Series  Graphs and networks  Critical path analysis	Curve sketching. Matrices  Linear programming and game theory	Vectors and Integration  Random Processes, hypothesis testing and t-tests	Integration and differential equations  Numerical methods	Revision and consolidation.	A-level Exams.

## **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.