

Year 9 Summer Term Maths Curriculum

Students in Year 9 study different content dependent upon their class. The classes will spend approximately two weeks studying each topic.

Mr Storey-Scott and Mr Bees		Miss Robinson and Mr Ahluwalia		Mrs Joseph and Mr McClusky	
Sequences	Students look at how arithmetic sequences can be described using term to term and position to term rules. Geometrical sequence patterns are also considered.	Area	Areas of increasingly complex composite shapes are looked at including those involving trapezia and parallelograms. Area of circles are also studied using earlier work on pi.	Algebraic proof	Students start by looking at what constitutes an algebraic proof and the associated language. They then look at proof involving multiples, odd and even numbers and consecutive numbers.
Transformations	Students transform shapes using reflections, rotations and translations. The reverse process of describing transformations is also considered as well as combining various transformations.	Volume and surface area	The concepts of volume and surface area of 3d solids are defined. Students then apply these ideas by looking at problems involving cuboids, prisms and cylinders.	Quartiles and cumulative frequency	Students look at methods for finding quartiles and medians from both discrete and continuous data, using these to construct box plots. They then look at how to draw cumulative frequency curves and use these to compare data.
Representations of solids	After first looking at the different properties of common solids; students look at various ways of representing them including isometric drawings, nets and plan and elevations	Pythagoras theorem	By firstly drawing pictorial sequences, students define square cube and triangular numbers. Students also learn how to find and estimate square roots before looking at how these operations can be combined.	Further Volume and surface area	Building on work from the previous year students look at formulae for finding the volume and surface area of pyramids, cones and spheres.
Averages and measures of spread	After looking at when it is appropriate to use each of the different averages, students solve problems involving missing data and data presented to them in a frequency table. Range of data considered.	Grouped and bivariate data	Students firstly look at the different averages used to represent sets of data. They then look at how data sets can be represented using both pie charts and line graphs.	Vectors	Students look at how column vectors can be used to describe the movement between two positions and associated arithmetic operations. They then consider parallel vectors including questions expressed algebraically.
Review of Year 9 work and summative tests	Students review all work completed in Year 9 before completing a summative end of Year test.	Review of Year 9 work and summative tests	Students review all work completed in Year 9 before completing a summative end of Year test.	Review of Year 9 work and summative tests	Students review all work completed in Year 9 before completing a summative end of Year test.

After completing each topic students complete an assessed homework task which is recorded in the front of their yellow assessment books.

Results of tests are recorded in the back of student's yellow assessment books.