





The curriculum for this stage of students' education has been designed to build upon their knowledge of shape to enable them to calculate area, perimeter and volume as well as know the properties of 2D and 3D shapes including constructions and transformations. Students will also have the opportunity to develop their skills with prisms. Students will also build on their understanding of powers which will be developed further in the standard form topic. There will also be an extensive look at probability, building on work from Years 7 and 8 by looking at combined events as well as mutually exclusive and exhaustive events. Students will develop their understanding of straight lines by looking at the standard form of the equation for a linear graph. Throughout the year, students will be exposed to regular exam questions and exam papers to prepare them fully for their mock exam at the end of the year. Underpinning the curriculum areas, will be the opportunity to explore how the skills they are developing can be used in real life situations and applied to problem solving questions.

<p>HALF TERM 1: STUDENTS MUST KNOW: How to calculate perimeter and area of shapes</p> <ul style="list-style-type: none"> Perimeter and area of quadrilaterals and triangles Circumference and area of circles <p>How to calculate volume and surface area of shapes</p> <ul style="list-style-type: none"> Calculating volume and surface area of prisms. Calculating volume and surface area of cylinders. <p>How to calculate lengths/areas/volumes in cones and spheres</p> <ul style="list-style-type: none"> Calculations involving arcs and sectors Calculations involving pyramids, cones and spheres <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>	<p>HALF TERM 2: STUDENTS MUST KNOW: How to calculate lengths/areas/volumes in cones and spheres</p> <ul style="list-style-type: none"> Calculations involving arcs and sectors Calculations involving pyramids, cones and spheres <p>How to calculate with indices and standard form</p> <ul style="list-style-type: none"> Calculations using the rules of indices Calculations involving standard form <p>To understand similarity and congruence</p> <ul style="list-style-type: none"> Apply conditions of congruency Calculations involving similar lengths, areas, volumes <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of a topic with one main assessment occurring in each term to assess progress.</p>	<p>HALF TERM 3: STUDENTS MUST KNOW: Understand and calculate probabilities</p> <ul style="list-style-type: none"> Use probability scales Calculate the probability of an outcome Understand mutually exclusive and exhaustive Calculate probabilities from two-way tables Understand experimental probability and expectation Understand calculations for combined events Be able to use Venn Diagrams and tree diagrams <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress</p>
<p>HALF TERM 4: STUDENTS MUST KNOW: How to identify and define linear sequences</p> <ul style="list-style-type: none"> Recognise patterns and continue them Find and use the nth term of a linear sequence Identify common sequences e.g. square, triangular, etc. <p>The main properties of linear graphs</p> <ul style="list-style-type: none"> Know the equations of horizontal and vertical lines Plot accurately a linear equation Understand how to find and use $y=mx+c$ <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>	<p>HALF TERM 5: STUDENTS MUST KNOW: Basic Constructions</p> <ul style="list-style-type: none"> Understand basic constructions and loci Identify and define line and rotational symmetry <p>How to calculate direct and inverse proportion</p> <ul style="list-style-type: none"> Calculate interest, both simple and compound Find the original amount after a percentage change Calculate using the constant of proportionality <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic. All students will sit a mock GCSE exam in the summer term.</p>	<p>HALF TERM 6: STUDENTS MUST KNOW: Understand and define transformations</p> <ul style="list-style-type: none"> Define a transformation using vectors Produce and define a translation Produce and define a rotation Produce and define a reflection Produce and define an enlargement Produce a combined transformation <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic. All students will sit a mock GCSE exam in the summer term.</p>

Embedding this knowledge can be supported at home by using GCSEPod to consolidate learning that has taken place in class, attempting questions which can be found online at www.corbettmaths.com, practising exam papers from the AQA website and www.mathsgenie.co.uk and using revision guides.