

<b>Year 11</b>	
Circle properties	Angle in semi-circle. Angle at the centre. Angles at the circumference. Cyclic quadrilaterals. Tangent to a circle. Alternate segment theorem. Proof of circle properties.
	<b>Unit 1 Test</b>
Solving equations graphically	Solving equations graphically (interpreting roots).
Measuring - upper and lower bounds	Truncation. Finding upper and lower bounds. Write as an inequality. Calculations with upper/lower bounds. Rounding to an appropriate degree of accuracy.
Percentages	Finding percentage decrease/increase/change.
	<b>Unit 2 Test</b>
Volume and surface area	Prisms and units of area/volume. Volumes of spheres, pyramids and cones. Surface areas of cylinders, spheres and cones.
Similar shapes	Finding lengths, areas and volumes of similar shapes by considering the associated scale factors
	<b>Unit 3 Test</b>
Vectors	Basic concepts. Magnitude. Equal vectors. Multiplying by a scalar. Adding/subtracting vectors. Vector geometry (proving 3 points lie on a straight line, and finding a constant k).
	<b>Unit 4 Test</b>
Transformation of functions	Translations and reflections of functions which includes sketching $y=f(x)+k$ , $y=f(x-k)$ , $y=-f(x)$ , and $y=f(-x)$ from the graph of $y=f(x)$ for linear, quadratic, cubic, reciprocal, or trigonometric functions.
Proof	Algebraic proof.
Tangents to Circles	Finding the equation of a tangent to a circle.
Capture-recapture	Capture-recapture.
Modelling	Modelling involving equations where $x$ is in the power.
	<b>January Mocks</b>
Revision	Revision of concepts taught in Years 7-11

#### **Assessment Procedure**

- Autumn grade will be based on the Year 10 exam and Unit Tests 1, 2 and 3
- Spring grade will be based on the Mock examination (Paper 1 = non-calc Paper 2/3 = calc)