

KEVICC Key Stage 4 Curriculum Subject: Mathematics		Key Vocabulary and notation.																																															
Summer Half-Term																																																	
Term: Year 10 Summer Term – Block Two		Topic: Properties of Polygons																																															
<p>What is the essential knowledge from this unit? What do students need to remember and understand?</p>		<table border="0"> <tr> <td>Adjacent</td> <td>Parallelogram</td> </tr> <tr> <td>Angles at a point</td> <td>Square</td> </tr> <tr> <td>Vertically opposite</td> <td>Trapezium</td> </tr> <tr> <td>Rectangular</td> <td>Rectangle</td> </tr> <tr> <td>opposite</td> <td>Kite</td> </tr> <tr> <td>Straight</td> <td>Perpendicular</td> </tr> <tr> <td>Acute</td> <td>Bisect</td> </tr> <tr> <td>Obtuse</td> <td>Delta</td> </tr> <tr> <td>Reflex</td> <td>Exterior</td> </tr> <tr> <td>Right angle</td> <td>Interior</td> </tr> <tr> <td>Parallel</td> <td>Regular</td> </tr> <tr> <td>Transversal</td> <td>Polygon</td> </tr> <tr> <td>Alternate</td> <td>Sum</td> </tr> <tr> <td>Corresponding</td> <td>Total</td> </tr> <tr> <td>Angle</td> <td>Pentagon</td> </tr> <tr> <td>Line</td> <td>Hexagon</td> </tr> <tr> <td>Supplementary</td> <td>Octagon</td> </tr> <tr> <td>Points</td> <td>Demonstration</td> </tr> <tr> <td>Co-interior</td> <td>Justify</td> </tr> <tr> <td>Isosceles</td> <td>Proof</td> </tr> <tr> <td>Equilateral</td> <td>Compasses</td> </tr> <tr> <td>Scalene</td> <td>Line</td> </tr> <tr> <td>Rhombus</td> <td>Line segment</td> </tr> </table> <p>Mathematical questioning should be designed to unpick the structure of the maths and deepen the student's understanding. When students talk about mathematical concepts, they should develop the vital mathematical language that helps them explain their ideas fully.</p> <p>Students are expected and encouraged to use terminology during all discussions, verbal feedback and in written content.</p>		Adjacent	Parallelogram	Angles at a point	Square	Vertically opposite	Trapezium	Rectangular	Rectangle	opposite	Kite	Straight	Perpendicular	Acute	Bisect	Obtuse	Delta	Reflex	Exterior	Right angle	Interior	Parallel	Regular	Transversal	Polygon	Alternate	Sum	Corresponding	Total	Angle	Pentagon	Line	Hexagon	Supplementary	Octagon	Points	Demonstration	Co-interior	Justify	Isosceles	Proof	Equilateral	Compasses	Scalene	Line	Rhombus	Line segment
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<table border="1"> <tbody> <tr> <td>G4</td> <td>Derive and apply the properties and definitions of: special types of quadrilaterals, including square, rectangle, parallelogram, trapezium, kite, and rhombus and triangles and other plane figures using appropriate language</td> <td>including knowing names and properties of isosceles, equilateral, scalene, right-angled, acute-angled, obtuse-angled triangles including knowing names and using the polygons: pentagon, hexagon, octagon, and decagon</td> </tr> </tbody> </table> <p>Students should be able to:</p> <ul style="list-style-type: none"> recall the properties and definitions of special types of quadrilaterals name a given shape identify and use symmetries of special types of quadrilaterals identify a shape given its properties list the properties of a given shape draw a sketch of a named shape identify quadrilaterals that have common properties classify quadrilaterals using common geometric properties. 		G4	Derive and apply the properties and definitions of: special types of quadrilaterals, including square, rectangle, parallelogram, trapezium, kite, and rhombus and triangles and other plane figures using appropriate language	including knowing names and properties of isosceles, equilateral, scalene, right-angled, acute-angled, obtuse-angled triangles including knowing names and using the polygons: pentagon, hexagon, octagon, and decagon																																													
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<p>What prior learning supports understanding of this content?</p> <ul style="list-style-type: none"> Classify angles Identify and draw parallel and perpendicular lines Recognise types of triangle, quadrilateral and other polygons. Construct triangles given SSS, SAS, ASA Calculate and use angles at a point, angles on a straight line and vertically opposite. Calculate missing angles in triangles and quadrilaterals 		<p>How does this content link to future learning?</p> <ul style="list-style-type: none"> Review circumference, perimeter, and area of 2D shapes. Compare lengths, areas and volumes using ratio notation, making links to similarity and scale factors. Understand the effect of enlargement on 2D and 3D shapes. Know and apply the formulae to calculate the volume of cuboids and other right prisms (including cylinders). Calculate the volume of spheres, pyramids, cones, and composite solids, including frustums. 																																															
<p>Reading: <i>Where in the unit are students supported to read complex academic text?</i></p> <ul style="list-style-type: none"> Reading and understanding mathematical questions and problems' – teacher input. Decoding complex examination questions - explain what they are asking the student to do' – teacher input. Following instructions to solve problems - break down the tasks – teacher input. Recognising terminology, numbers, and symbols. 		<p>Writing: <i>Independent writing tasks and how they are structured</i></p> <ul style="list-style-type: none"> Using the correct subject specific terminology for numbers and symbols – examination papers, class books. Responding to questions that ask for an explanation or a reason – examination papers, class books. Self-evaluation, reviewing, reflecting and analysis of own work – class books, personalised learning checklists and analysis. Creating notes that can be used later for revision purposes - class books, revision cards, mind maps etc. 																																															

Key assessments:

How will do students review the information learned?

End of block assessments.

AQA end of block assessments provide a quick progress check at the end of each block of learning to make sure students have understood the content being covered. These are available for both foundation and higher tiers.

End of term/year assessments and mock examinations.

End of term assessments assessing the students' progress towards targets and provide diagnostic information to modify future teaching.

End of year 9 and 10 examinations assessing the students' progress towards targets and provide diagnostic information to modify future teaching.

Two mock examinations seasons take place during year 11 using previous years AQA 8300 examination papers. Students to experience the full suite of papers at both Foundation and higher tiers using Non-calculator and Calculator requirements.

All examinations will explore the three examination papers at both foundation and higher tiers using non-calculator and calculator requirements.

How will feedback be seen?

Marked end of block, term assessments and mock examinations.

Personalised learning checklists for all assessments identifying strengths and areas of development.

Written teacher feedback and marking in compliance with faculty and College Marking Policies. Student responses to marking. Students self-mark using purple pen. Verbal feedback given every lesson from teacher and peers as appropriate. Teacher and student self-assessment of presentation of class books will be completed to ensure written work is of high standard and students are achieving their potential.