



CURRICULUM CORE KNOWLEDGE PLAN

SUBJECT: Mathematics

YEAR GROUP: Year 10

DATE: HT3

Term and unit	Core knowledge	Core vocabulary	Revisiting prior knowledge	Links to Walney Ways & Employability skills/Careers
Spring Term 3.1 – Angles and Bearings (2 weeks)	- Understand and represent bearings - Measure and read bearings - Make scale drawings using bearings - Calculate bearings using angle rules - Solve bearings problems using Pythagoras and trigonometry Solve bearings problems using the sine and cosine rules Bold = Higher content	Cardinal directions Angle Bearing Perpendicular Parallel Clockwise Construct Scale Protractor	- Use cardinal directions and related angles - Draw and interpret scale diagrams	
Spring Term 3.2 – Working with Circles (2 weeks)	- Calculate fractional parts of a circle - Calculate the length of an arc - Calculate the area of a sector Circle theorem: Angles at the centre and circumference Circle theorem: Angles in a semicircle Circle theorem: Angles in the same segment Circle theorem: Angles in a cyclic quadrilateral - Understand and use the volume of a cylinder and a cone	Circumference Area Diameter Radius Tangent Chord Frustum Hemisphere	- Recognise and label parts of a circle Solve area and volume problems involving similar shapes	



	• Understand and use the volume of a sphere • Understand and use the surface area of a sphere • Understand and use the surface area of a cylinder and a cone • Bold = Higher content	Surface Area		
Spring Term 3.3 – Vectors (2 weeks)	• Understand and represent vectors • Use and read vector notation • Draw and understand vectors multiplied by a scalar • Draw and understand addition of vectors • Draw and understand addition and subtraction of vectors • Explore vector journeys in shapes • Explore quadrilaterals using vectors • Understand parallel vectors • Explore collinear points using vectors • Use vectors to construct geometric arguments and proofs • Bold = Higher content	Direction Magnitude Scalar Column Vector Resultant Parallel		