

Subject: Maths **Year** 7 **Ability** Mixed

Half Term 3 / weeks	Half-term 3 (1-2 weeks)	Half-term 3 (2 weeks)	Half-term 3 (2 weeks)
Topic	Unit 6: Units of measurement	Unit 7: Angle and angle properties on straight lines	Unit 8: Triangle and quadrilaterals angles
Topic overview	An introduction to units of measurement and recognise different units of measurement and covert between them	Students will understand angle properties on straight lines (and parallel lines) and calculate missing angles	Students will understand angle properties within triangles and quadrilaterals
Pupils will learn...			
Components	<ul style="list-style-type: none"> To be able to distinguish between metric measures for length, mass and capacity To be able to multiply and divide by 10,100,1000 and apply this to converting between metric units of length To be able to distinguish between metric and imperial units To be able to convert between metric units of capacity To be able to covert units of measurements in area and volume. 	<ul style="list-style-type: none"> To be able to classify an angle using correct terminology To use angle terminology to estimate the size of an angle To be able to measure and draw an angle using a protractor To be able to use the rule for sum of angles around a point to find missing angles To be able to use sum of angles on a straight line to calculate missing angles To be able to use the rule for vertically opposite angles to calculate missing angles To be able to use multiple angles rules within the same problem to calculate missing angles To be able to calculate missing angles within parallel lines To be able to calculate missing angles including algebraic angles 	<ul style="list-style-type: none"> To be able to identify lines of symmetry on a 2D shape To be able to construct a triangle using a ruler and protractor To be able to use the angle sum within a triangle to find missing angles To be able to identify and name different types of quadrilaterals To be identify the properties of quadrilaterals and draw them based on this information To be able to calculate missing angles within quadrilaterals with justifications using properties of quadrilaterals To be able to tessellate shapes
What pupils should already know (prior learning components)	Multiply and divide by power of 10s Place value Concepts of what is a length, mass and capacity and the units we would use to describe this	Addition and subtraction Types of angles Understand the term parallel Basic understanding of finding an unknown	2D shape names Types of angles Addition and subtraction Measurements
Transferrable knowledge (skills)	This unit supports students' ability to multiply and divide by powers of 10. It develops their understanding of place value which is further developed in Unit 6 in Y8 where students are exposed to calculations that need converting to a set measurement.	This unit develops the fine motor skills of our students' to draw and measure draw an angle, which is further developed throughout KS3 and KS4, particularly when drawing pie charts and scale drawings.	This unit continues to develop the fine motor skills of our students' to accurately construct triangles and quadrilaterals, which is further developed throughout KS3 and KS4 with constructions, loci and bearings.
Key vocabulary pupil will know and learn	Length, mass, capacity, volume, weight, metric, imperial, area, volume, squared, dimensions	Acute, obtuse, right-angled, reflex, degree, protractor, adjacent, vertically opposite,	isosceles, scalene, symmetry, quadrilaterals, interior, exterior, parallel, perpendicular, tessellate
Assessment activities	Homework 6 Year 7 Half term Test 3	Homework 7 Year 7 Half term Test 3	Homework 8 Year 7 Half term Test 3
Resources available	Maths watch clips: 112, 115, 119, 142, 143	Maths watch clips: 13, 45, 46, 47, 120, 121, 122, 123	Maths watch clips: 9, 11, 12a, 47, 48, 49, 121, 122

Notes	The entry to this unit begins with students being able to identify length, mass and capacity and distinguish between the three. We also ensure students have an understanding of metric and imperial measures and how this is used in different countries to develop our students' cultural capital. In the first half term of Y7 place value and powers of 10 were introduced, which is recapped and further developed in this unit. This skill is developed further within KS3 with area and volume calculations, and KS4 with Density, Mass and volume calculations and Similarity.	The entry to this unit begins ensure students use correct mathematical terminology to describe and classify angles. Students then move to discover angles rules with straight lines, and using these with their addition and subtraction skills to calculate missing angles. The unit finishes combining angle rules in a variety of contexts, where more than one rule may be applied to calculate the missing angle.	The entry to this unit begins with recalling 2D shape names and properties from KS2, and earlier from HT1. Skills from Unit 7 are then used to draw accurate triangles and quadrilaterals. Student will then be able to use angle sum rules to calculate missing angles with triangles and quadrilaterals. The unit finishes with students investigating which shapes tessellate and understand why some shapes do not tessellate.
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