

"Our curriculum is designed to help students truly master mathematics, so they can apply their skills in unfamiliar situations whenever needed. Topics from the same content areas have been grouped together to form mastery half terms. More time is spent teaching fundamentals to avoid reteaching in later years."

Summer 2: Angle geometry	
Skills	<ul style="list-style-type: none"> • Use and apply basic angle facts (revise from Year 7) • Use the triangle interior angle sum (revise from Year 7) • Use the sum of the interior and exterior angles of a polygon to solve problems • Begin to construct informal proofs • Plot and measure the position of an object on a given bearing and distance from a specified point • Solve problems involving bearings using angle rules from previous units
Knowledge	<ul style="list-style-type: none"> • Recall the representation of an angle as a turn • Know the sum of interior angles of a triangle • Explore different methods for finding the sum of the interior angles of polygons by splitting the shape into triangles • Generalise different methods for finding the sum of interior and define the sum of the exterior angles of a polygon • Know conventions for drawing and measuring bearings • Understand how measurements vary depending on the scale of a drawing being measured
Rationale	<p>This module is an opportunity to revisit the work on angles from Year 7 and apply it to polygons in general, as well as the real life context of bearings. Learners should be challenged to think carefully about proof and develop their spatial reasoning.</p> <p>Learners begin by reviewing angle work in year 7, revisiting angle facts. Learners use their understanding of angles in triangles from year 7 to build up to a proof for the sum of the interior angles in polygons with 4 or more sides by dividing into triangles. The perspective is then shifted to investigate the sum of the exterior angles of a polygon and learners develop an understanding of the relationship with between the exterior and interior angles. Learners solve a variety of problems using the angle relationships built up in this unit and in previous units.</p> <p>Next, in unit 11 the conventions for measuring, drawing and recording bearings are introduced. Once these conventions have been established, learners engage with a series of problems involving the angles rules that have been introduced up to this point. The problems that students encounter in these lessons also provide an opportunity to practice applying the conventions for rounding and applying scales when measuring lengths.</p>