My mathematical journey

What do I need to remember from before?

Measuring and drawing angles (Key Stage 2, GM1)

Basic angle facts (NP2)

*Mathswatch clips in brackets

What will I learn about in this unit at CEC?

Angle facts about lines and polygons
(MW G10b, G10c, G13, G16)

Types of quadrilaterals and other polygons
(MW G11, G14, G19)

Bearings
(MW 124)

Where does this lead?

Congruence and similarity (GM4)

Trigonometry (GM5, GM9)

Solving geometric problems, including circle theorems (GM6, GM7, GM11)

Key words and symbols: what I need to say and write accurately

A vertex (plural, vertices) is made when two lines meet. Sometimes called a corner.

Lines: vertical, horizontal, parallel, perpendicular, oblique

Angles: acute, obtuse, reflex, alternate, corresponding, interior

Triangles: scalene, isosceles, equilateral

Quadrilaterals: square, rectangle, parallelogram, rhombus, (isosceles) trapezium, kite, arrowhead

Polygons: triangle, quadrilateral, pentagon, hexagon, heptagon, octagon, nonagon, decagon

Symmetry can be reflective or rotational

Fingertip facts: what I need to learn by heart

Polygon	Number of sides	Interior angle sum
Triangle	3	180°
Quadrilateral	4	360°
Pentagon	5	540°
Hexagon	6	720°
Heptagon	7	900°
Octagon	8	1080°
Nonagon	9	1260°
Decagon	10	1440°

Notice that the interior angle sum increases by 180° each time.

Angle facts

- Adjacent angles <u>on a straight line</u> sum to 180°.

- Angles <u>around a point</u> sum to 360°.

- <u>Vertically opposite</u> angles are equal.

- Angles in parallel lines on <u>adjacent</u> or <u>corresponding</u> sides of the transversal are equal.

- Three-figure bearings are measured clockwise starting from north.