

Geometric Shapes: Maths : Year 6 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To illustrate and name parts of circles.	Children will learn how to measure the radius, diameter and circumference of a circle, then practise drawing and measuring diameter and radius lines inside circles.	<ul style="list-style-type: none"> Do children know what the circumference, diameter and radius of a circle are? Do children know that the diameter is twice the radius? Can children use the radius to draw a circle? 	<ul style="list-style-type: none"> Slides Worksheets 1A/1B/1C Pairs of compasses Measuring Circles (FSD? activity only) Tape measures, trundle wheels, chalk, string (FSD? activity only)
Lesson 2	To recognise angles and find missing angles.	Children will build on their prior knowledge of angles to help them find missing angles on a straight line or around a point. They will then think about the interior angles of triangles and quadrilaterals and use this knowledge to calculate missing angles within shapes as well as those which are vertically opposite on intersecting lines.	<ul style="list-style-type: none"> Can children find missing angles where they meet at a point or on a straight line? Are children able to find a missing angle within a triangle or quadrilateral? Are children able to find missing angles within a problem solving context? 	<ul style="list-style-type: none"> Slides Worksheets 2A/2B/2C Bee-Bots/Turtles/Roamers (FSD? activity only)
Lesson 3	To draw 2-D shapes using given dimensions and angles.	Children will practise drawing irregular and regular polygons accurately using rulers, protractors and/or set squares. They will also practise drawing circles accurately using rulers and pairs of compasses.	<ul style="list-style-type: none"> Can children use rulers to accurately draw the sides of 2-D shapes? Can children use protractors to accurately draw the angles of 2-D shapes? Can children use pairs of compasses to accurately draw circles (and segments of circles)? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Challenge Card 3A
Lesson 4	To recognise and describe simple 3-D shapes.	Children will build on their understanding of the properties of 3-D shapes, using mathematical vocabulary to describe them. They will also draw isometric 3-D shapes based on given descriptions.	<ul style="list-style-type: none"> Can children describe some common properties of 3-D shapes? Can children identify specific 3-D shapes according to their properties? Can children match and draw 3-D shapes according to descriptions of their properties? 	<ul style="list-style-type: none"> Slides Worksheets 4A/4B/4C Isometric paper Describing Shapes (FSD? activity only) Wooden/plastic 3-D shapes (FSD? activity only) A bag (must be opaque) (FSD? activity only)
Lesson 5	To recognise, describe and build simple 3-D shapes, including making nets.	Children will study exploded diagrams of polyhedrons and identify their plane surfaces. They may then construct 3-D shapes by making wireframes or nets.	<ul style="list-style-type: none"> Do children recognise that polyhedrons have faces which are 2-D shapes? Can children visualise what 3-D shape a net will make? Can children design and build 3-D wireframes and nets according to descriptions of a shape? 	<ul style="list-style-type: none"> Slides Worksheets 5A/5B/5C 3-D construction toys, e.g. cocktail sticks and marshmallows, K'NEX, Polydron Cereal Box Challenge (FSD? activity only) A variety of cardboard packaging (FSD? activity only) Card, scissors, glue, sticky tape (FSD? activity only)