## Year 6 Maths: Geometry: Shape



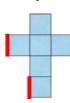
## What should I already know?

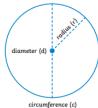
- Identify 3D shapes, including cubes and other cuboids, from 2D representations.
- Draw given angles, and measure them in degrees (°).
- Use the properties of rectangles to deduce related facts and find missing lengths and angles.
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
- Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°) and other multiples of 90°).
- Vocabulary I must know: side, edge, vertex, vertices, face, apex.

## Key Knowledge

Recognise, describe and build simple 3D shapes, including making nets.

Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.





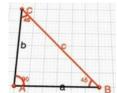
Draw 2D shapes using given dimensions and angles.

Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

 $A = 90^{\circ}$ 

B = 45

 $C = 45^{\circ}$ 





Angles on a straight line always total 180°.

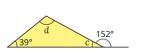


Angles around a point always total 360°.



Opposite angles which share a vertex are equal.

Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.





a + b + c + d = 360°

Key Vocabulary and definitions

key vocabulary and definitions	
net of a 3D	What the shape looks like if it is
shape	opened out flat.
protractor	A tool used to measure <b>angles</b> in
	degrees (°).
regular polygon	Any <b>2D shape</b> formed with straight
	sides. All the sides and angles are
	equal.
irregular	The sides and angles are not equal.
polygon	
radius	The distance from the centre of a
	circle to the <b>circumference</b> .
diameter	The distance across a circle passing
	through the centre.
circumference	The perimeter of a circle.
angles	When two straight lines meet at a
	point ( <b>right angle, acute angle,</b>
	obtuse angle, reflex angle).
intersect	Cross e.g., when two or more lines
	cross or lie across each other.
parallel lines	Lines that never <b>intersect</b> e.g., run
	along next to each other like tracks
	of a train.
perpendicular	Lines that <b>intersect</b> one and other at
lines	90° (right angle).
vertex/vertices	The corner point where straight
	edges meet.