

# Stage 9

## Calculating Space



- Cylinder
- Compound
- Circumference
- Radius
- Diameter
- Sector
- Tangent
- Arc
- Segment
- Prism
- Cross-section
- Pythagoras
- Hypotenuse

### WHAT DO WE ALREADY *know?*

- Understand how to use  $\pi$ .
- Be able to calculate the area and circumference of a circle.
- Be able to find the area of a triangle, trapezium, and parallelogram.
- Work out the area of a compound shape.



- Understand how to solve a problem involving arcs or sectors.
- Find the volume and surface area of any prism.
- Use Pythagoras theorem to solve problems involving right-angled triangles.

### Calculating Space - Targets

	Before Topic	After Topic	Teacher Mark
Know circle definitions and properties including tangent, arc, sector and segment.			
Calculate arc length of a sector.			
Calculate the area of a sector.			
Calculate the angle of a sector when arc length and radius are known.			
Calculate the surface area of a right-prism.			
Calculate the surface area of a cylinder.			
Use Pythagoras Theorem to find a missing side of a right-angled triangle.			
Solve worded problems involving right-angled triangles and Pythagoras Theorem.			