

The circle – centre, radius and diameter

WHAT THIS LESSON TEACHES

The centre is the middle point of a circle. Every point on the edge is the same distance from the centre; that distance is the radius, and a diameter is a straight line right across through the centre.

- The dot in the middle of a drawn-around lid is the centre.
- A line of 4 cm from the middle of a wheel to its rim is a radius.

MODEL THIS ON THE BOARD

CENTRE, RADIUS AND DIAMETER OF A LID

- 1 Draw round a circular lid and mark the middle point. This is the **centre**.
- 2 Draw a straight line from the centre out to the edge. This radius measures **3 cm**.
- 3 Draw a straight line right across the lid through the centre. This diameter measures **6 cm**, twice the radius.

DISCUSSION STARTER

REFLECT Which part of a circle do you find easiest to spot — centre, radius or diameter?

ANSWER KEY

Scaffold: visual check on the page

Q1: radius

Q2: 10 cm

a) Always — A diameter is made of two radii joined end to end through the centre.

b) Always — All points on the edge are the same distance from the centre.

c) Never — A radius only reaches from the centre to the edge, touching the centre at one end.

d) Never — The centre is the middle point inside, not on the round edge.

EXTENSION SHEET · STRETCH ANSWERS

S1: radius, 5 cm

S2: 10

S3: diameter

Investigation: Circles in the room — open-ended; scan pupils' working for valid solution paths rather than a single answer.