

# Circumference – measuring round things and meeting $\pi$

MODULE 6 · 2D AND 3D SHAPE, ANGLES, SYMMETRY SHAPE &amp; SPACE

## HOW TO ANSWER TODAY

- **Parts of a circle.** Centre = middle point. Radius = centre to edge. Diameter = edge through centre to edge. Circumference = the distance round.

Line from centre to edge → radius · All the way round → circumference

- **Circumference.** Circumference =  $\pi \times \text{diameter}$  (or  $2 \times \pi \times \text{radius}$ ). Use  $\pi \approx 3.14$ . Round to 1 decimal place.

Diameter 10 cm →  $3.14 \times 10 = 31.4$  cm

- **$C \div d$ .** Divide circumference by diameter. The answer is always close to  $\pi$  (about 3.14).

Diameter 20 cm, circumference 63 cm →  $63 \div 20 = 3.15$

## ★ STRETCH PROBLEMS

- 1 On the school tour to Glendalough, Cian draws a circular logo for the bus window that has a diameter of **10 cm**. What do we call the line from the centre to the edge of the circle, and how long is it?

- 2 5th class are drawing names from a circular tin for the secret-Santa swap. The lid of the tin has a diameter of **7 cm**. Using  $\pi \approx 3.14$ , what is the circumference of the lid, rounded to **1** decimal place?

A circle has a diameter of 7 cm. What is its circumference? (Use  $\pi \approx 3.14$ , round to 1 dp.)

- 3 Mr Murphy's 5th class made a circular pie chart showing how pupils get to school each day. He explains that two radii drawn in a straight line through the centre form one \_\_\_\_\_. What word fills the blank?

- 4 Cian is mapping the school orchard and draws a circle around each tree to show its canopy on the plan. One young apple tree's canopy circle has a diameter of **9 cm** on his map. Using  $\pi \approx 3.14$ , what is the circumference of the circle, rounded to **1** decimal place?

A circle has a diameter of 9 cm. What is its circumference? (Use  $\pi \approx 3.14$ , round to 1 dp.)

- 5 At the Saturday farmers' market in Galway, Oisín measures a round wheel of cheese on the stall. The cheese has a diameter of **7 cm** and a circumference of **22 cm**. What is the circumference divided by the diameter, to **2** decimal places?