

BALL OR TIN ON THE RAMP

- 1 Look at the **football**: it is round every way, with **no flat faces** and **no edges**, so it is a sphere.
- 2 A sphere rolls **anywhere**, so the football may roll off sideways down the slope.
- 3 Look at the **tin of beans**: it has **two flat circle ends** and a curved middle, so it is a cylinder.
- 4 A cylinder rolls in a **straight line** on its curved side, so the tin rolls straight down the ramp.

PRACTICE

- 1 In the PE store the coach holds up a tennis ball. Decide which rolling shape it is. _____
- 2 A player brings a glue stick for the team poster. Decide which rolling shape the glue stick is. _____
- 3 A rolling pin is laid on its side on a gentle slope. Does it roll straight or roll anywhere? _____
- 4 Three items sit by the GAA pitch: a football, a kitchen-roll tube used as a marker, and an orange for half-time. Sort each as sphere or cylinder.
- 5 Before the match, sort a sliotar, a birthday candle from the cake tin, and the match ball. Say sphere, cylinder or neither for each.
- 6 The coach asks the team to explain the difference using the tin of beans and the football on the little slope.

Why does a cylinder roll straight but a sphere roll anywhere?

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

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|---|---|
| a. A sphere has flat circle faces. ☐ | c. A sphere has no edges. ☐ |
| b. A cylinder rolls in a straight line on its curved side. ☐ | d. A sphere rolls only in a straight line. ☐ |

