

3D shapes – nets (a first look)

WHAT THIS LESSON TEACHES

A net is a flat shape made of all the faces of a solid joined edge to edge. When folded, it closes up into that solid.

- Six squares joined in a cross fold up into a cube.
- A cube has 6 square faces, so its net has 6 squares.

MODEL THIS ON THE BOARD

FOLDING A NET

- 1 Count the flat squares in the open shape.
- 2 Fold the edges together to form the solid.
- 3 Check that all faces match the solid.

DISCUSSION STARTER

REFLECT Can you picture how a flat net folds up into a solid before you try it?

ANSWER KEY

a) 6

c) cube

Q1: 6

Q2: No

Q3: 6

Q4: cube

Q5: No

a) **Always** — A cube has exactly 6 faces so its net must have 6 squares.

b) **Sometimes** — Some lines of 6 squares fold into a cube but not all arrangements do.

c) **Never** — Only certain joined arrangements of 6 squares fold into a cube.

d) **Always** — Opening a box flat always gives a net of that box.

EXTENSION SHEET · STRETCH ANSWERS

Investigation: Design a cube net — open-ended; scan pupils' working for valid solution paths rather than a single answer.