Year 5 · Geometry: Shapes That Fold, Flip and Slide

Name: _____ Date: _____

Hi there! This sheet helps you match 3D shapes to their nets and describe how shapes move, flips, slides and turns. Take your time and picture each shape in your head!

Warm-up

1. What do we call a flat drawing of a 3D shape that has been unfolded so you can see all its faces?

2. Name the transformation where a shape is flipped over a line to make a mirror image.

3. How many faces does a cube have?

4. When you slide a shape from one place to another without turning or flipping it, what is this called?

Practice

5. Kauri drew a net with 6 equal squares joined in a cross shape. Which 3D shape will this net fold up to make?

6. A net has 1 square in the middle with 4 triangles attached to its sides. What 3D shape does this net make?

7. A shape at position A is moved to position B. It stays exactly the same way up and the same way round, it has only moved 5 cm to the right. Which transformation is this?

8. Aroha holds a letter 'b' up to a mirror on its right-hand side. Describe the transformation and what the letter now looks like.

9. Mere is packing a rectangular box (a cuboid). She unfolds it flat. How many faces does the net have, and what shape are they?

10. Tama turns a triangle a quarter turn (90°) clockwise around one of its corners. Name the transformation and say how far the shape turned.

Challenge

11. A cube has faces numbered 1 to 6. On the net, the '1' is in the centre. Around it are '2', '3', '4' and '5', and '6' is joined to the '2'. When folded, which number will be on the opposite face to the '1'?

12. A shape is first reflected over a vertical line, and then the mirror image is translated 3 cm down. Describe, in order, the two transformations and whether the final shape is the same size as the original.