Patterns in the World Around Us

1. B) The scales on a pinecone (1 mark)

Working: Pinecones have a natural, repeating spiral pattern.

Selects B.

2. True (1 mark)

Working: A motif is the basic unit of a pattern.

Selects True.

3. Radial (1 mark)

Working: Radial patterns radiate from a central point.

Accepts 'Radial'.

4. A) Tessellation (1 mark)

Working: Tessellation is the mathematical term for shapes fitting without gaps.

Selects A.

5. False (1 mark)

Working: Patterns can use any colour palette, including natural or monochrome tones.

Selects False.

6. Symmetry (or Line Symmetry) (1 mark)

Working: A line of symmetry creates a mirror image.

Accepts 'Symmetry' or 'Line Symmetry'.

7. A) A pattern of triangles and squares (1 mark)

Working: Triangles and squares are geometric shapes.

Selects A.

8. B) To create a sense of movement or flow (1 mark)

Working: Rhythm in art guides the eye through the design.

Selects B.

9. Rotational symmetry (1 mark)

Working: Rotational symmetry involves turning a shape around a fixed point.

Accepts 'Rotational symmetry'.

10. A) Printing with a carved potato stamp (1 mark)

Working: Using a stamp allows for the repetition of a motif.

Selects A.

What a secure answer looks like

A secure answer demonstrates an understanding of how mathematical concepts like symmetry and tessellation apply to artistic design. Students should be able to distinguish between natural patterns and man-made geometric ones.

If your child is stuck

Ask the child to look at the floor tiles or a piece of fabric and count how many times a single shape repeats. Remind them that 'geometric' refers to shapes like squares, circles, and triangles.

Common mistakes to watch for

Children often confuse 'radial symmetry' with 'rotational symmetry' or assume that all patterns must be perfectly symmetrical, forgetting that asymmetrical patterns can still have rhythm.