Zara’s Pattern Playground

Learning objective: To identify, describe, and create geometric and organic patterns inspired by the natural world.

Zara the zebra loves finding patterns in nature! Look at the different types of patterns below. For each question, identify the pattern type and explain how it is created. Use your sketchbook to complete the drawing prompts.

Word bank: Symmetry · Tessellation · Geometric · Organic · Repetition · Motif

1. Zara notices a honeycomb made by Bea the bee. It is a repeating shape that fits together perfectly with no gaps. What is the mathematical name for this type of pattern? (2 marks)

2. Look at the stripes on a zebra. Are these considered 'geometric' (made of precise shapes) or 'organic' (natural, flowing lines)? Explain your choice. (2 marks)

3. If you draw a line down the middle of a butterfly’s wing and both sides are identical, what is this type of balance called? (2 marks)

4. A 'motif' is a single design element that is repeated to make a pattern. If you were designing a wallpaper, why is it important for your motif to be consistent in size? (2 marks)

5. Find an example of a pattern in your classroom (like floor tiles or a shirt). Describe how the pattern is arranged. Is it a grid, a radial pattern (spiralling out), or a random scatter? (2 marks)

Draw: In your sketchbook, create a 'tessellation' pattern using only triangles and squares. Once finished, color the pattern using a contrasting color scheme to make the shapes pop!

Extension challenge: Research the work of M.C. Escher. How did he use tessellation to turn simple shapes into recognisable animals like birds or fish? Try to draw your own 'morphing' motif.