Zara’s Pattern Explorer: Investigating Visual Rhythms

Learning objective: I can identify, analyse, and create complex patterns using geometric and organic shapes.

About 15 minutes. Grown-up tip: Encourage your child to look for patterns in everyday objects like radiator covers, floor tiles, or garden leaves.

Explore your surroundings for patterns. Zara the zebra loves to spot how shapes repeat in nature and in our towns. Choose a pattern you have found and analyse its structure.

Example: If you chose a honeycomb, you would describe the hexagon shape (the 'unit') and explain how it tessellates without gaps.

Word bank: Tessellation · Symmetry · Repeat · Geometric · Organic · Motif · Contrast · Radial

1. Pattern Observation: Describe a pattern you have spotted at home or in the playground. What is the repeating 'motif' or shape? (2 marks)

2. Structure Analysis: Is your chosen pattern geometric (made of straight lines/shapes) or organic (natural/curved)? Explain why. (2 marks)

3. Symmetry Check: Does your pattern feature reflective or rotational symmetry? Explain how you know. (3 marks)

4. Colour Theory: Which two colours have been used in the pattern to create contrast? Why do these colours work well together? (2 marks)

5. Design Application: If you were to extend this pattern across a large surface, what mathematical rule would you need to follow to keep it consistent? (3 marks)

Draw: In the space below, draw a detailed section of the pattern you analysed. Use a pencil to focus on the precision of the lines and the repeating structure.

Extension challenge: Try to create your own 'impossible' pattern by combining two different shapes that do not normally fit together, then colour them using a complementary palette.

I did it! **Name:** _____ **Date:** _____

Too easy? Try Greater Depth. Too tricky? Try Supported. More at bookflik.com/resources