

Zara's Symmetry Safari

Learning objective: To identify, describe, and draw lines of symmetry in 2D shapes.

Zara the zebra loves finding patterns in nature! She has found some shapes in the forest. Look at the shapes below and decide if they have a line of symmetry. If they do, use a ruler to draw the line of symmetry on the shape. If the shape is NOT symmetrical, put a cross (X) through it. Remember, a shape is symmetrical if it can be folded in half so that both sides match perfectly.

Word bank: Symmetry · Line of symmetry · Symmetrical · Reflect · Mirror line · Vertical · Horizontal

1. Zara has a square-shaped tile. How many lines of symmetry can you find on a square? (1 mark)

2. Look at an equilateral triangle. If you draw a line of symmetry from the top point to the bottom base, does the left side reflect the right side? Explain why. (2 marks)

3. Draw a line of symmetry on a rectangle. Is it possible to have a diagonal line of symmetry on a rectangle? Why or why not? (2 marks)

4. A circle has many lines of symmetry. If you draw a line through the centre of the circle, will it always be a line of symmetry? Why? (2 marks)

5. Zara finds a shape that looks like a cloud. It has no straight edges and no equal sides. Does this shape have a line of symmetry? Explain your answer. (2 marks)

Draw: Draw a simple butterfly on a piece of paper. Use a ruler to draw a vertical line of symmetry down the middle of its body. Make sure the wings on both sides are identical mirror images of each other.



Extension challenge: Find three objects in your classroom or at home that have at least one line of symmetry. Write down the names of the objects and describe where the line of symmetry is (e.g., 'The ruler has a line of symmetry along its length').