

Zara's Symmetry Safari

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

Zara the zebra loves patterns! She has found several shapes and designs in the wild. Some have lines of symmetry, and some do not. Look at the shapes provided in the questions below. For each shape, draw the line of symmetry if it exists. If it has more than one line, draw all of them. If the shape has no line of symmetry, write 'None'.

Word bank: Line of symmetry · Reflect · Mirror image · Vertical · Horizontal · Diagonal · Asymmetrical

1. 1. Zara finds a square-shaped leaf. How many lines of symmetry does a square have? Draw them on the shape. (2 marks)

2. 2. Look at a standard isosceles triangle. Does it have a vertical line of symmetry? Explain how you know. (2 marks)

3. 3. Zara spots a badge in the shape of a parallelogram. Does it have any lines of symmetry? Why or why not? (2 marks)

4. 4. A regular pentagon has 5 sides. How many lines of symmetry do you think it has? Draw them. (2 marks)

5. 5. Max the monkey brings a rectangle. If you fold it horizontally, do the two halves match exactly? What is this fold line called? (2 marks)

Draw: Draw a symmetrical butterfly. Zara wants you to ensure that the pattern on the left wing is a perfect mirror image of the pattern on the right wing. Use a ruler to draw the vertical line of symmetry down the centre of the butterfly's body.



Extension challenge: Find three objects in your classroom or at home that have at least one line of symmetry. Sketch them and draw their lines of symmetry. Can you find an object that is asymmetrical?