

Zara's Pattern Hunt: Exploring Symmetry

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

Read about Zara the Zebra's art studio and answer the questions below. Use a ruler to help you find lines of symmetry.

Zara the Zebra is an artist who loves finding patterns in nature. Today, she is painting in her studio. She explains to her friends that a shape has symmetry if you can fold it in half so that both sides match perfectly. The line where you fold the shape is called the line of symmetry. Zara looks at a square, a rectangle, and a triangle. She notices that some shapes have more than one line of symmetry! She uses her paintbrush to draw dashed lines through the centre of her artwork to show where the shapes would mirror each other perfectly.

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

1. What do we call the line that divides a shape into two identical mirror images? (1 mark)

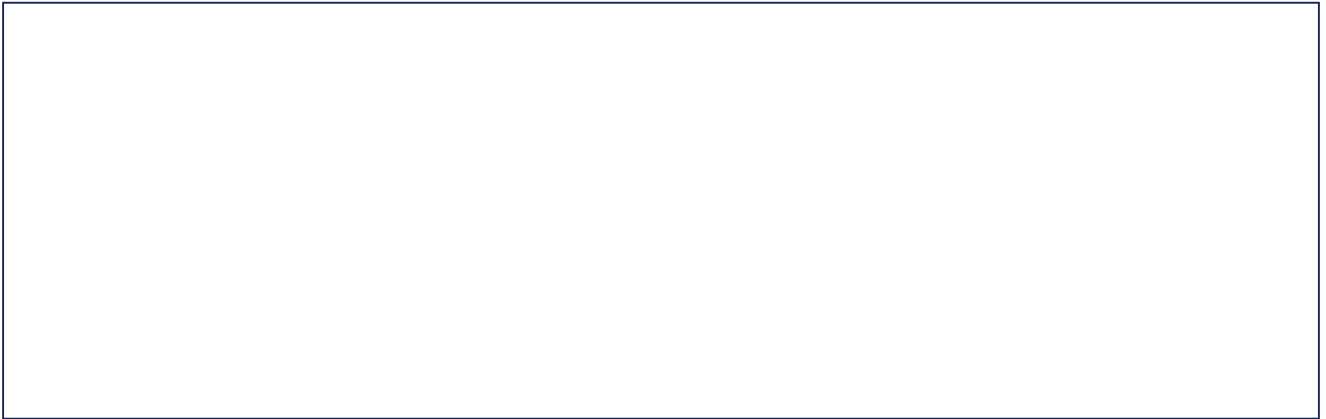
2. Zara draws a rectangle. Can you draw all the lines of symmetry you can find on a rectangle? Explain how many there are. (2 marks)

3. If you have a square, does it have more lines of symmetry than an isosceles triangle? Explain your reasoning. (2 marks)

4. Max the monkey tries to draw a heart. If he draws a vertical line straight down the middle, are the two sides identical? What is this called? (2 marks)

5. Look at the letter 'A'. Does it have a line of symmetry? If so, is it horizontal or vertical? (2 marks)

Draw: Draw a simple butterfly on a piece of paper. Use a ruler to draw a vertical line of symmetry down the centre of the butterfly's body to show how the wings match.



Extension challenge: Find three objects around your classroom or home that have at least one line of symmetry. Write down what they are and draw a sketch of each object showing its line of symmetry.