

Symmetry: The Art of Balance with Zara the Zebra

Step into Zara's Studio: Where every pattern finds its perfect reflection!

- A line of symmetry acts like a mirror; everything on one side must be exactly the same size and shape as the other side.
- When you translate a shape, you slide it to a new position without rotating it or changing its size.
- A regular polygon, like a regular hexagon, has as many lines of symmetry as it has sides.
- Reflecting a shape across a vertical or horizontal axis creates a 'flip' where the distance from each point to the mirror line remains constant.
- If a shape is not congruent after a flip or a slide, it means the transformation has not been completed accurately.

Did you know? Did you know? Symmetry isn't just in maths! It is found all over nature, from the delicate patterns on a butterfly's wings to the perfect arrangement of petals on a flower. When you fold a symmetrical shape along its line of symmetry, both halves match perfectly—they are mirror images!

Key vocabulary: Line of symmetry · Reflection · Translation · Mirror line · Congruent · Axis