

Max's Magnificent Symmetry Studio

Master the Mirror: Max's Guide to Perfect Symmetry!

- A line of symmetry is an imaginary axis where a shape can be folded so that both halves match perfectly. If a shape has more than one line of symmetry, it is called a regular polygon.
- When a shape is reflected across a line of symmetry, the distance from any point on the shape to the line is exactly the same as the distance from its reflected point on the other side.
- A square is a highly symmetrical shape! It possesses four distinct lines of symmetry: two passing through the midpoints of opposite sides and two passing through opposite corners (diagonals).
- Not all shapes have symmetry. A scalene triangle has no lines of symmetry because all its sides are of different lengths and all its angles are different sizes.
- Horizontal and vertical lines of symmetry are the most common, but remember that a diagonal line can also act as a line of symmetry if the shape is tilted or rotated.

Did you know? Did you know that nature is full of hidden maths? If you look at a butterfly's wings, they are almost perfect reflections of one another! This is called bilateral symmetry. Even the human face displays near-perfect symmetry, though if you look closely, you will find tiny, fascinating differences on each side.

Key vocabulary: Line of Symmetry · Reflection · Horizontal · Vertical · Diagonal · Congruent · Axis · Transformation