



Year 8 Maths Learning Journey

Summer term 3

Developing geometry: Line symmetry & reflection

Core knowledge	
Recognise line symmetry “Do all regular polygons have lines of symmetry?”	WORKSHEET
Reflect a shape in a horizontal or vertical line 1 (shapes touching the line) “What’s the area of the original shape? What’s the area of the resulting shape?”	WORKSHEET
Reflect a shape in a horizontal or vertical line 2 (shapes not touching the line) “How far is each vertex of the object from the mirror line? What does this tell us about the position of the image?”	WORKSHEET
Reflect a shape in a diagonal line 1 (shapes touching the line) “Why does it help to rotate your exercise book when reflecting in diagonal lines?”	WORKSHEET
Reflect a shape in a diagonal line 2 (shapes not touching the line) “What is the equation of the line that goes through (0,0), (1,1) etc.?”	WORKSHEET

Learning Checkpoints

LC Title	Completed	Dirt
Line symmetry & reflection		

Key Vocabulary:

Congruent: The same shape and size (but we are allowed to flip, slide or turn).

Equilateral: a polygon with all of its sides of the same length.

Horizontal: parallel to the horizon.

Image: The new shape created after an Enlargement

Isosceles: A triangle in which two sides have the same length and consequently two angles are equal.

Line symmetry: an object is said to have symmetry if it can be divided into two identical halves.

Object: A mathematical object is, loosely speaking, anything you can "do mathematics on".

Perpendicular distance: between two objects is the distance from one to the other

Polygon: A closed plane figure bounded by straight lines. The name derives from many angles.

Reflect: An image or shape as it would be seen in a mirror line

Regular: To formulate a chain of reasoning that establishes in conclusion the truth of a proposition.

Rhombus: A parallelogram with all sides equal.

Vertex: The point at which two or more lines intersect. Plural: vertices

Vertical: at right angles to the horizontal plane.