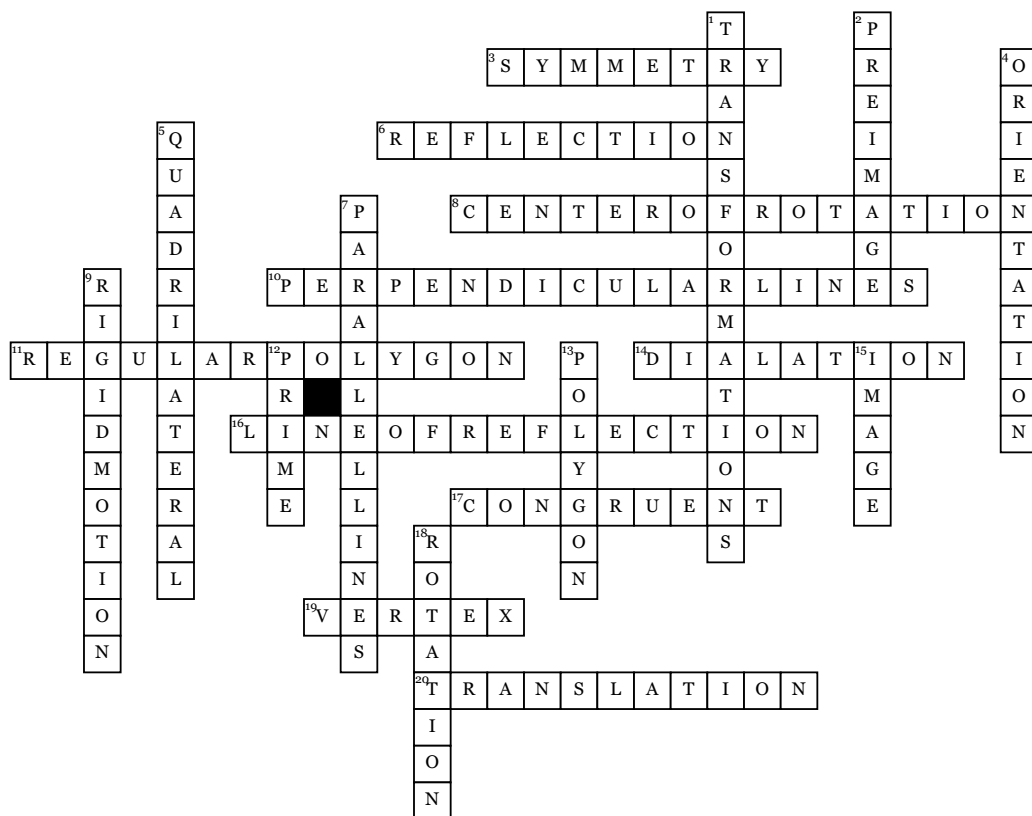


# Unit 6: Transformations & Symmetry



## Across

**3.** one shape becomes exactly like another when you move it in some way: turn, flip or slide.

**6.** a transformation that "flips" a figure over a mirror or reflection line.

**8.** a fixed point around which shapes move in a circular motion to a new position.

**10.** two lines that intersect to form a right angle.

**11.** when all angles are equal and all sides are equal (otherwise it is "irregular").

**14.** a transformation that stretches or shrinks a figure to create a similar figure.

**16.** a line that a figure is flipped across to create a mirror image of the original figure.

**17.** having exactly the same size and shape.

**19.** a point where two or more straight lines meet.

**20.** a transformation that "slides" each point of a figure the same distance in the same direction.

## Down

**1.** the act of changing the position of a shape on a coordinate plane.

**2.** the original image before transformation.

**4.** the way an object is 'pointing' or angled.

**5.** plane figure having four sides and four angles.

**7.** lines in the same plane that do not intersect.

**9.** a transformation in the plane that preserves distance and angle measure.

**12.** a symbol used to distinguish one quantity  $x'$  ("x prime") from another  $x$ . Prime marks are most commonly used to denote transformed coordinates.

**13.** a plane figure with at least three straight sides and angles, and typically five or more.

**15.** a figure resulting from a transformation.

**18.** a transformation where you "turn" a figure about a given point.

## Word Bank

translation

rotation

center of rotation

vertex

parallel lines

polygon

quadrilateral

regular polygon

orientation

image

reflection

line of reflection

prime

pre-image

perpendicular lines

rigid motion

dilation

congruent

symmetry

transformations