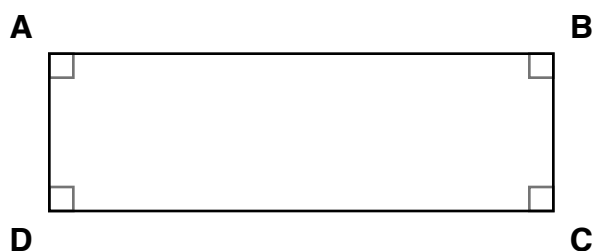## Home Connection

In Chapter 16, your child will deepen their understanding of geometric properties, building on their understanding of geometric shapes. They will learn about parallel and perpendicular lines, symmetrical figures, and how to classify shapes based on their properties.

Lines that meet at a 90 degree, or right, angle are perpendicular to each other.
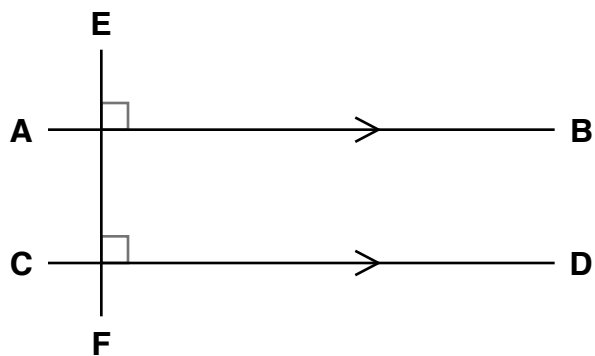
A   B

D   C

This is shown with a small square.
AB is perpendicular to DC.
AB $\perp$ DC

Lines that are perpendicular to the same line are called parallel lines. Even if the lines are extended, they will never cross.
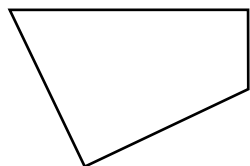
E

A   B

C   D

F

Parallel lines are shown with arrowheads.
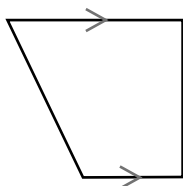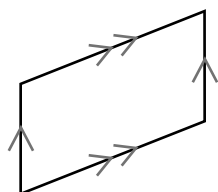AB is parallel to CD.
AB || CD

Your child will look at properties of quadrilaterals. Some of these terms may be new.
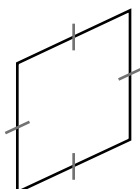This chart may come in handy at home if your child has questions:

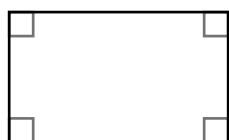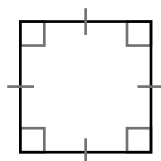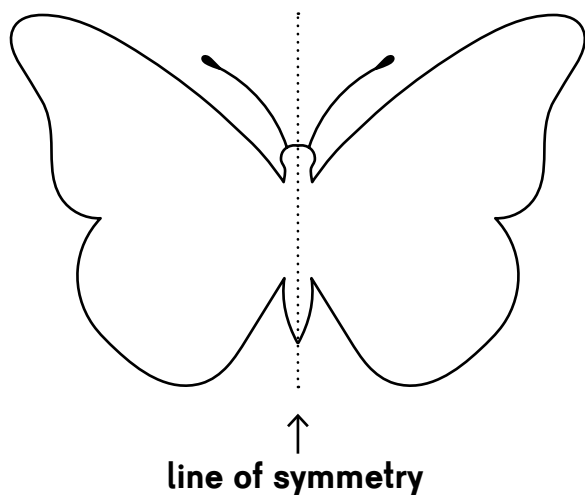|	
	A quadrilateral is a closed shape with four straight sides.
	A **trapezoid** is a quadrilateral with at least one pair of parallel sides.
	A **parallelogram** is a trapezoid with two pairs of parallel sides.
	A **rhombus** is a parallelogram with four equal sides.
	A rectangle is a parallelogram with four right angles.
	A square is a rhombus with four right angles.

Finally, your child will look at lines of symmetry in shapes. A figure where both sides match when it is folded in half is a symmetrical figure.

line of symmetry

What can we do at home?

• Use graph paper and draw half of a figure using a dotted line to show the line of symmetry. Can your child complete the figure? Here are some examples your child completed in class: