

Hello Grade 5 😊

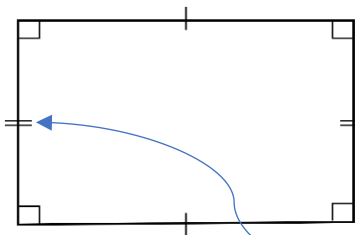
This week we will move our lessons to:

- a. Identifying and sorting quadrilaterals according to their attributes.
- b. Describing and looking at examples of edges and faces of 3D objects and sides of 2D shapes.

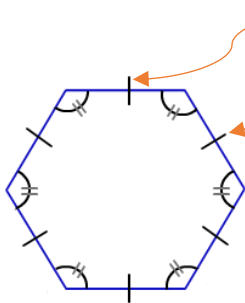
When we describe shapes we often talk about them by referring to their attributes. (their qualities or characteristics)

Some attributes of shapes include:

length of sides -

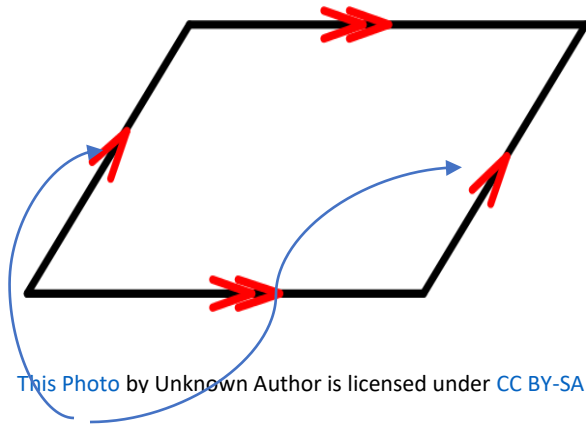


*small lines called hatch marks are used to show lines of equal length

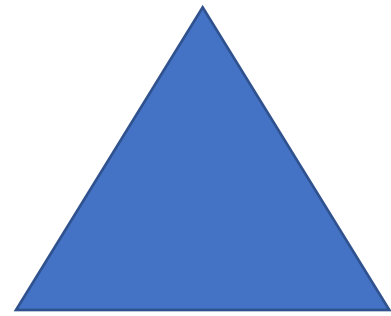


[This Photo](#) by Unknown

direction of the sides -



parallel lines - two lines that travel in the same direction and are the same distance apart but will never meet (arrows are used to show parallel sides)



this shape has no parallel sides

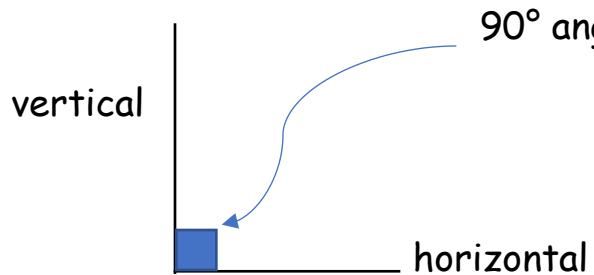
horizontal - a line that travels parallel to the floor



vertical - a line that travels perpendicular to the floor

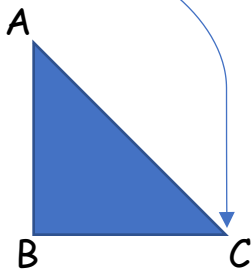


When a horizontal and a vertical edge meet to form a 90° angle, we say the edges are **perpendicular** and forms a **right angle**.



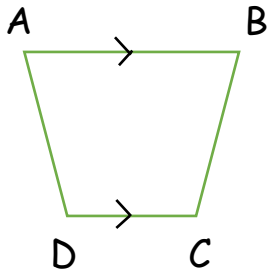
90° angle (note: the little square is a symbol that represents a 90° angle)

names of shapes - (adjacent sides of a shape meet or intersect at a vertex)



*Label each vertex with a capital letter and name the shape by recording the letters in order.

This shape is $\triangle ABC$.



This shape is quadrilateral ABCD.

Sides AB and DC are parallel.

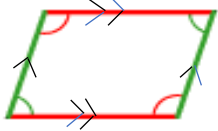
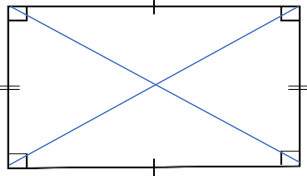
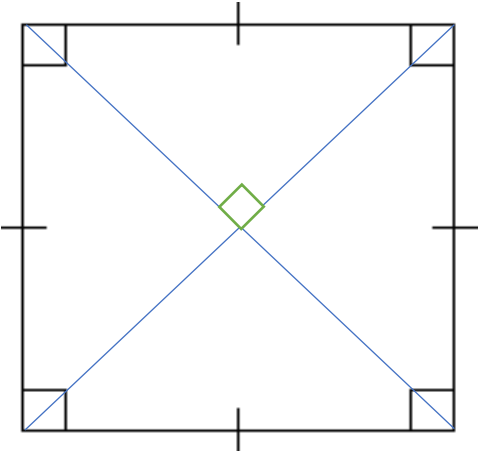
Now that we have discussed some of the basic attributes of shapes, let's take a closer look at **QUADRILATERALS**.

A quadrilateral is a polygon with 4 straight sides and 4 angles.

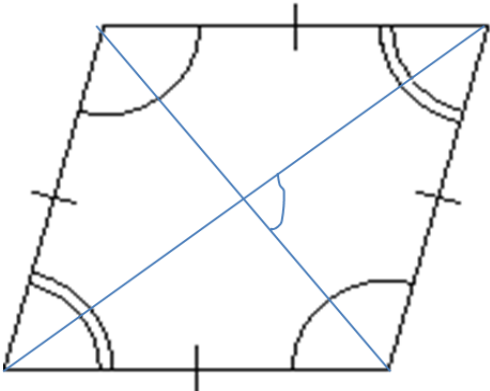
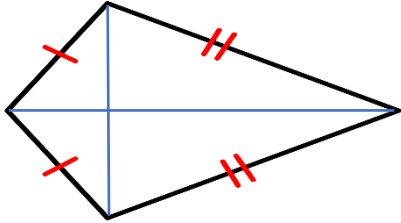
The following table outlines some quadrilaterals and their attributes:

Quadrilateral	Attributes	Examples
Trapezoid	<p>One pair of parallel sides.</p> <p>*Isosceles trapezoid has a pair of opposite sides that are equal.</p>	<p>This Photo by Unknown Author is licensed under CC BY-SA</p>

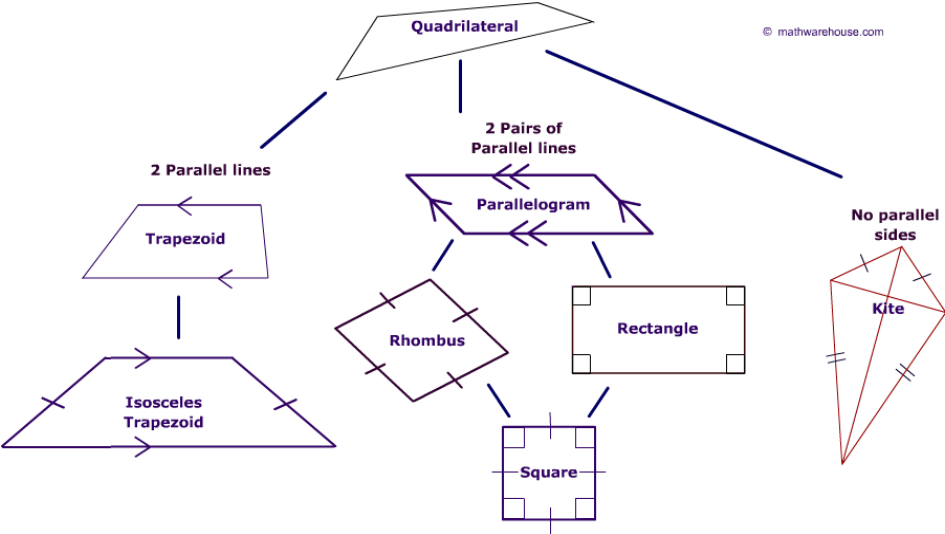
(see next page)

<p>Parallelogram</p>	<p>Two pairs of parallel sides. Opposite sides are equal. Opposite angles are equal.</p>	 <p>This Photo by Unknown Author is licensed under CC BY-SA</p>
<p>Rectangle</p>	<p>A parallelogram with 4 right angles (90°) Two pairs of parallel sides. Opposite sides are equal. Diagonals are equal</p>	
<p>Square</p>	<p>A parallelogram with 4 right angles and all sides congruent (equal). Two pairs of parallel sides. Diagonals are equal and perpendicular to each other.</p>	 <p>This Photo by Unknown Author is licensed under CC BY-SA</p>

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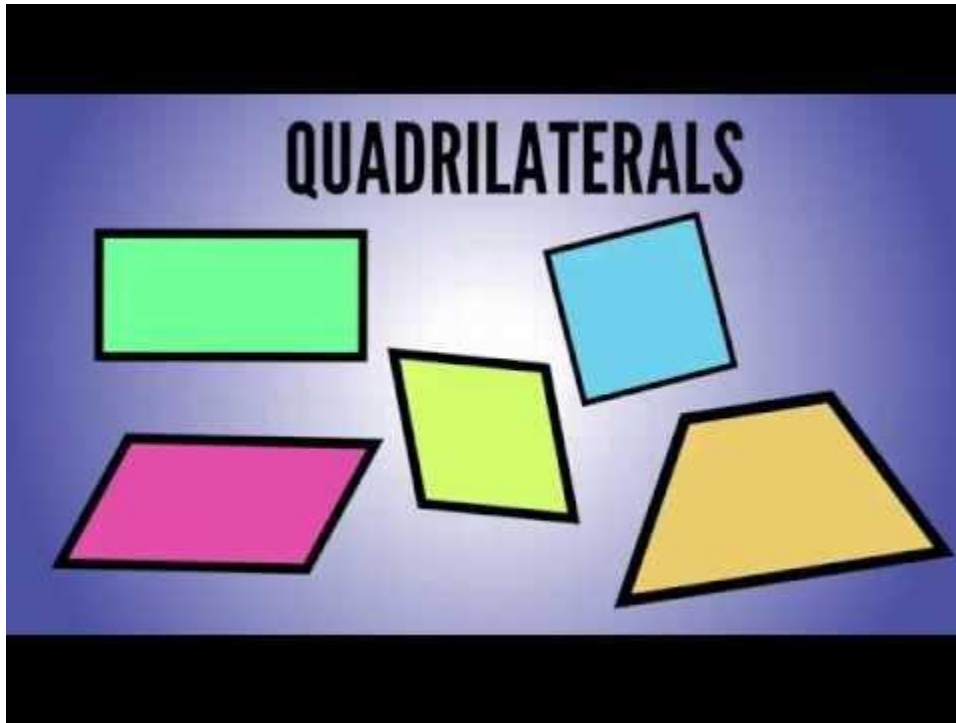
<p>Rhombus</p>	<p>A parallelogram with 4 congruent sides. Opposite angles equal. Two pairs of parallel sides. Diagonals are perpendicular to each other.</p>	 <p>This Photo by Unknown Author is licensed under CC BY-SA</p>
<p>Kite</p>	<p>2 pairs of adjacent (side by side) sides that are equal. Diagonals are perpendicular.</p>	

The following diagram gives a visual of the relationship between quadrilaterals.



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Let's listen to the following video about quadrilaterals:



Hopefully the video helps you to understand more clearly what you have read about quadrilaterals.

At this point, you can try some activities on Dreambox at

<https://play.dreambox.com/> *remember to look for the blue calendar icon.

There are also some Netmath activities at www.netmath.ca

1. Describing quadrilaterals
2. Classifying quadrilaterals 1

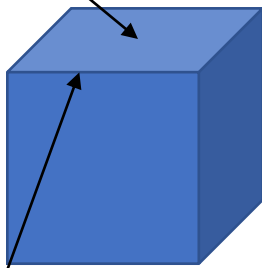
In the second part of this week's lesson we will take a look at faces and edges of 3D objects. The following video will help us understand about the attributes of 3D shapes. (see next page)



Some key points to remember from the video include:

Face - the flat surface of a 3D object, often a shape we already know.

(the faces of a cube are squares)



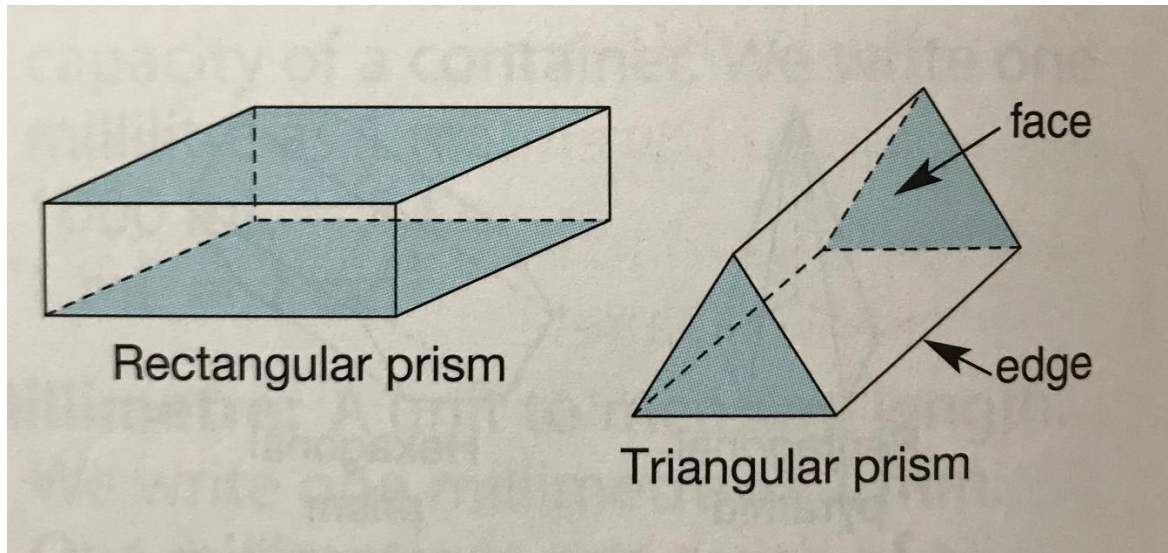
Vertex - the point where two or more edges of an object meet (also called corners).

Edge - two faces of a 3D shape meet at an edge.

The 3D shapes we see with flat faces are called prisms and pyramids. Each of these is named according to the base.

A **prism** is a 3D object with two congruent bases.

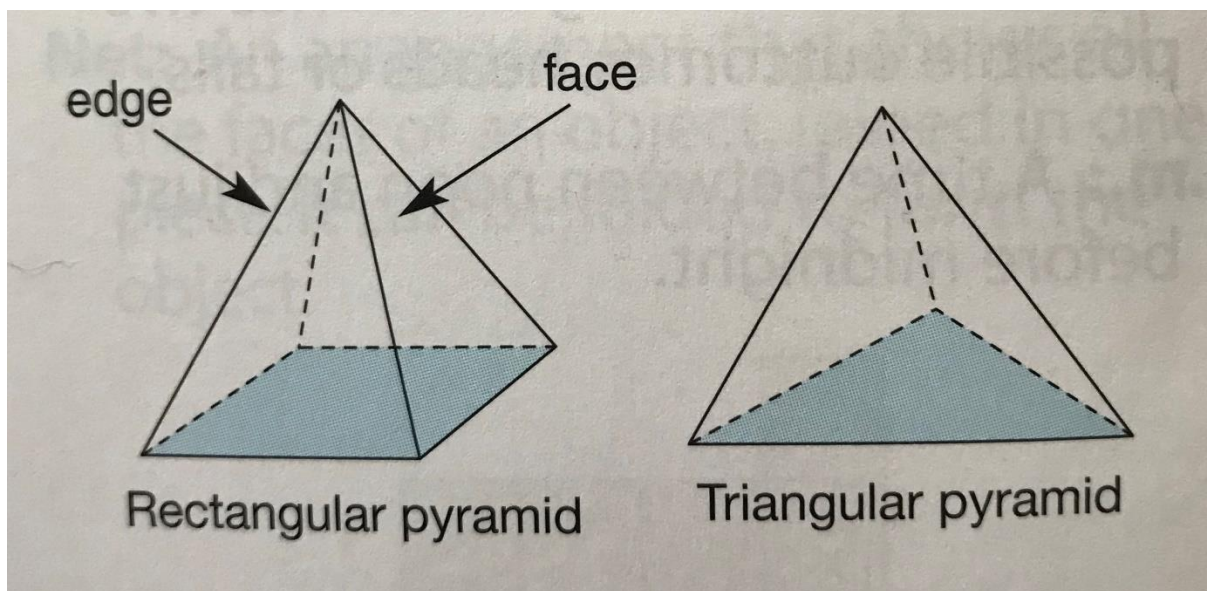
For example:



*Notice each prism is named by the base.

A **pyramid** is a 3D object with one base and all other faces meet at a common vertex.

For example:

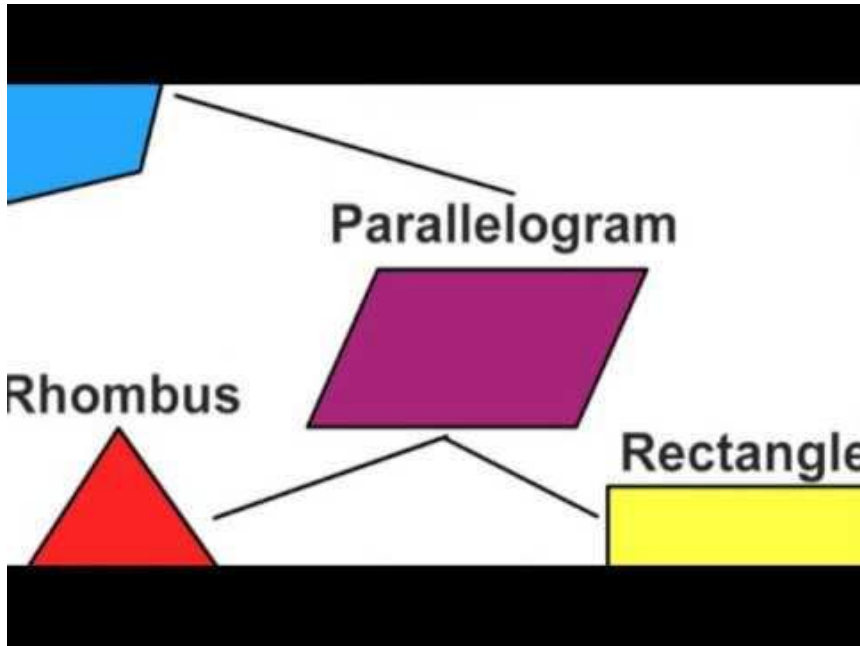


*Notice again, each pyramid is named by the base.

To follow up on what you have learned about 3D objects, there is a Netmath activity at www.netmath.ca :

Determining the number of faces, vertices and edges on a prism.

To finish, let's listen to the following videos 😊



This one has the words so you can sing along!

