

# RECALL – PARALLEL AND PERPENDICULAR LINES

Look at these world flags. Which have parallel lines? Which have perpendicular lines?



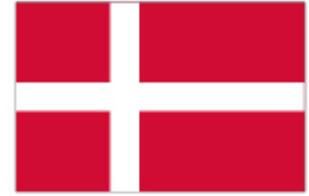
Canada



Costa Rica



Dahomey



Denmark



Dominican Rep.



El Salvador



Finland



France



Gabon



Hungary



Iceland



India

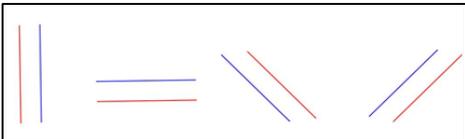


Madagascar

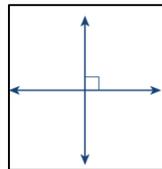


Uganda

Parallel lines



Perpendicular lines



Alex thinks that this flag must have perpendicular lines as they are not horizontal or vertical. What do you think? Why?



Trinidad-Tobago

# LO: I CAN RECOGNISE AND DESCRIBE 2D SHAPES.

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## Success Criteria

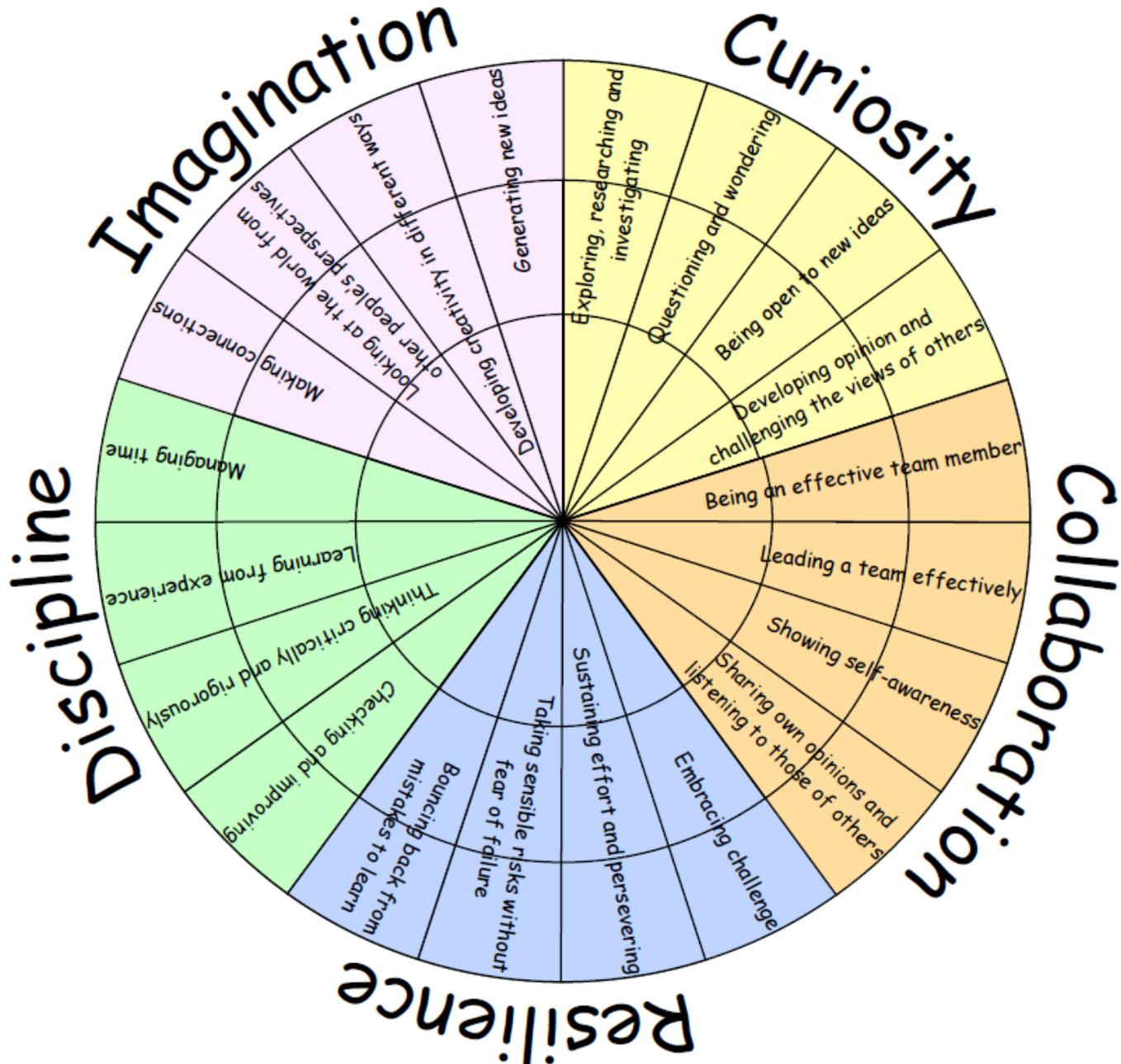
**Some will even** problem solve.

**Some will** identify parallel and perpendicular lines.

**Most will** identify and name features of a wide range of 2D shapes, including quadrilaterals.

**All will** name some simple 2D shapes and name some features (sides/corners).

# LEARNING HABITS?



# GUIDED PRACTICE (1)

**3 BEFORE ME**  
Use your shape mat.



A **quadrilateral** is a shape with four sides. People usually think of just square and rectangle, but there are so many other **quadrilaterals**. Some have parallel lines and some have perpendicular lines. Some have both.

Name	Shape	Description
Square		A square has 4 equal sides of length. It has perpendicular lines as it has 4 right angles. It has 2 sets of parallel lines. In this square, one pair of parallel lines go horizontally and the second pair go vertically.
Rectangle		A rectangle has 2 long and 2 short sides. It has perpendicular lines as it has 4 right angles. It has 2 sets of parallel lines. In this rectangle, one pair of parallel lines go horizontally and the second pair go vertically.
Rhombus		A rhombus looks a little like a square that has been knocked over. It doesn't have any right angles so it doesn't have any perpendicular lines. It has 4 equal sides of length 2 sets of parallel lines. In this rhombus, one pair of parallel lines go horizontally and the other pair go diagonally.
Parallelogram		A parallelogram looks a little like a rectangle that has been knocked over. It doesn't have any right angles so it doesn't have any perpendicular lines. It has 4 sides. In the parallelogram, one set of parallel lines go horizontally and the other go diagonally.
Trapezoid		A trapezoid looks a little like a rectangle with parts missing. It doesn't have any right angles so it doesn't have perpendicular lines. It has 4 sides. Two of the sides are parallel to each other (top and bottom line). The two side lines are diagonal.

Create your own quadrilateral with 4 sides.

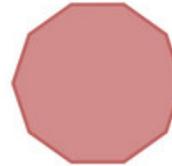
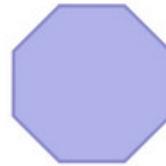
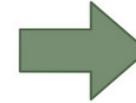
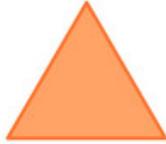


# INTELLIGENT PRACTICE

3 BEFORE ME



Label these shapes using the vocabulary in the red box.



Name these quadrilaterals.



Triangle  
Rectangle  
Circle  
Square

Cross  
Oval  
Arrow  
Star  
Heart  
Crescent

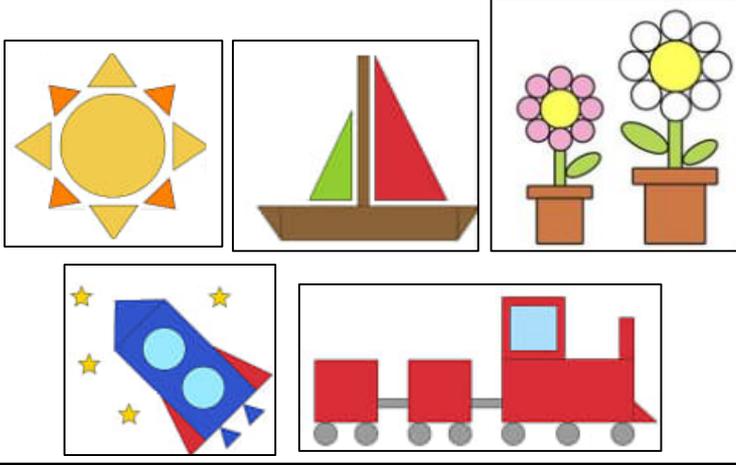
Pentagon - 5  
Hexagon - 6  
Heptagon - 7  
Octagon - 8  
Nonagon - 9  
Decagon - 10

Rhombus  
Parallelogram  
Trapezoid  
Square  
Rectangle

# DIVE DEEPER 1

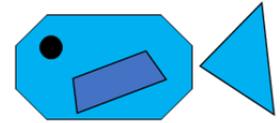
1

Here are some pictures made from 2D shapes. What shapes can you see in them? Write a description in your maths book.

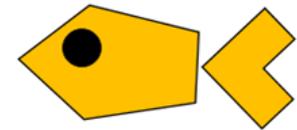


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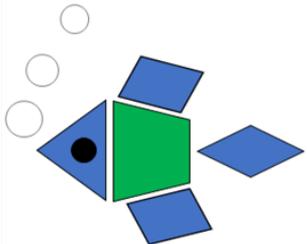
Match the description to each fish.



This fish has a pentagon body.



This fish has a trapezoid body and a triangle head.



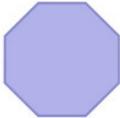
This fish has an octagon body and a triangle tail.

3

Write a description for each shape.

## Vocabulary

Sides    corners    straight    curved  
equal    different    length

Shape	Description
	This shape is called a _____. It has ____ curved side(s) and ____ corners.
	This shapes is called a _____. It has ____ straight sides that are equal. It has ____ corners.
	
	
	
	
	

# DIVE DEEPER 2

1 What is the same and what is different about these shapes?



2 Megan describes a shape.



My shape has 2 pairs of parallel lines. The sides are not equal in length.

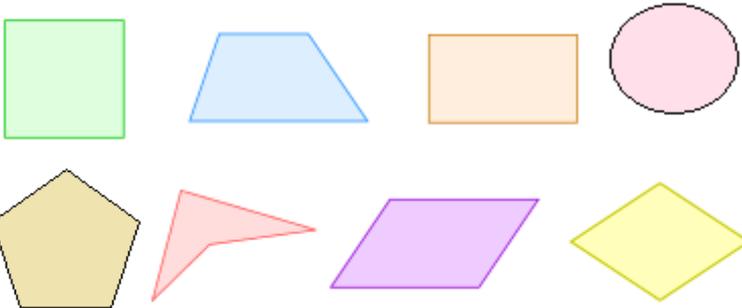
Draw her shape.

Could a square be Megan's shape? Explain why.

3 Complete the sentence.

A quadrilateral is a shape that has \_\_\_\_\_ sides.

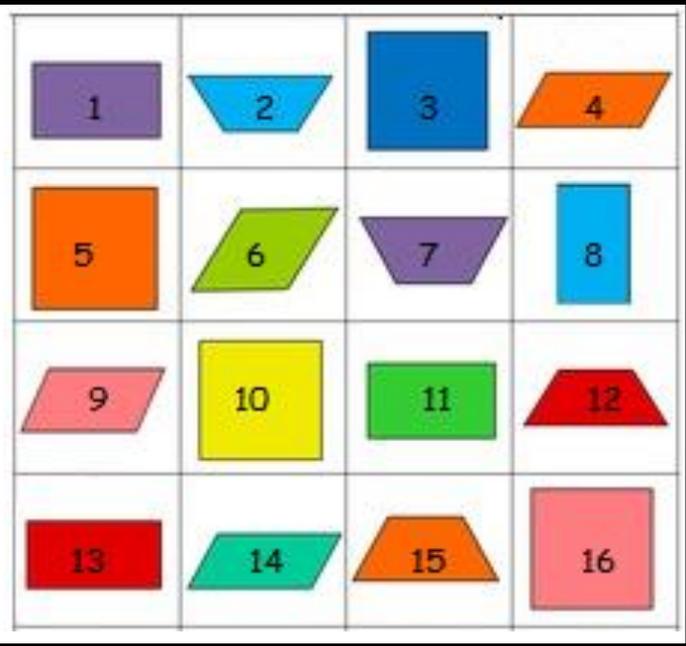
4 Tick the shapes that are quadrilaterals.



There are two shapes here that are not a quadrilateral: a \_\_\_\_\_ and a \_\_\_\_\_. Explain why they are not a quadrilateral.

5 Name each quadrilateral.

Number them in your maths book and write the name.



6 Draw each quadrilateral shape.



square



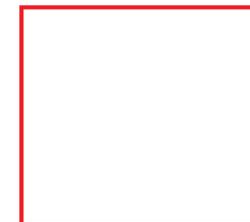
rectangle



rectangle



rhombus



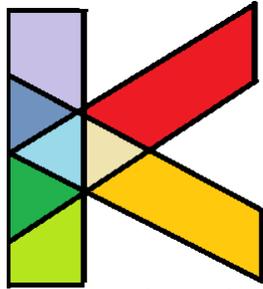
parallelogram



trapezoid

# DIVE DEEPER 3

1 How many quadrilaterals can you see inside the letter 'k'?



What colour are they?

2 Describe this quadrilateral.

It has \_\_\_\_\_ angles.  
 It has \_\_\_\_\_ right angles.  
 It has \_\_\_\_\_ obtuse angle.  
 It has \_\_\_\_\_ acute angle.  
 It has \_\_\_\_\_ lines of symmetry.



Choose one of these 2D shapes and write a description for a friend. Can they identify your shape? Include:

- number of sides, corners.
- Types of line: vertical, horizontal, diagonal or curved.
- Types of lines: parallel or perpendicular
- Type of angles: right angle, acute or obtuse angle.
- Lines of symmetry.

4 Draw at least one shape in each section of the diagram.



	At least 1 right angle	No right-angles
4 sided		
Not 4 sided		