

# HOME LEARNING

## Year 9 – Maths – Home Learning 11

Focus for this week: Quadrilaterals

Essential learning:	<ul style="list-style-type: none"><li>• Know that quadrilateral means four edges</li><li>• Recognise squares, rectangles, rhombii, parallelograms and trapeziums</li></ul>
Practising:	<ul style="list-style-type: none"><li>• Identify edges, vertices, lines of symmetry, angles and parallel lines for commonly used quadrilaterals</li></ul>
Learning about:	<ul style="list-style-type: none"><li>• Identify squares, rectangles, rhombii, parallelograms and trapeziums from their descriptions</li></ul>
Extension:	<ul style="list-style-type: none"><li>• Solve proportion problems, relating to similar quadrilaterals</li></ul>

### Contents:

- Worksheet 1** Recognising quadrilaterals as shapes with four edges  
**Worksheet 2** Recognise squares, rectangles, rhombii, parallelograms and trapeziums  
**Worksheet 3** Identify the properties of quadrilaterals  
**Worksheet 4** Identify squares, rectangles, rhombii, parallelograms and trapeziums from their descriptions  
**Worksheet 5** Solve proportion problems, relating to similar quadrilaterals

### Tasks:




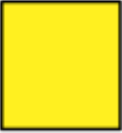


- Look at the learning objectives, reflect on what you are already confident with, what you would like to practise and what you would like to learn this week
- Choose 2-3 worksheets to complete this week and email them to Mrs. Coleman on the email below.
- Login to MyMaths and complete MyMaths tasks
- Spend 10 minutes a day on Times Table Rock Stars; Numbots OR Sumdog
- Please email a photo of any worksheets or poster you complete to the email address below.  
*This will earn you a golden token.*

### Additional activities:

- Design a pairs game relating to quadrilaterals.
- On one card draw a 4 sided shape.
- On another list the properties of that shape.
- When you have completed the cards, place them face down and take turns to turn over 2 cards to see if they match.

If you have queries about this work, please contact me at [coleman@bower-grove.kent.sch.uk](mailto:coleman@bower-grove.kent.sch.uk)

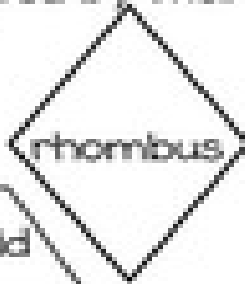
A quadrilateral is any 4 sided shape.

Type of quadrilateral	Properties
<b>Parallelogram</b> 	Opposite sides are equal and parallel. Opposite angles are equal.
<b>Rhombus</b> 	Opposite sides are parallel. All sides are equal.
<b>Rectangle</b> 	Opposite sides are parallel and equal. Each angle is a right angle.
<b>Square</b> 	Opposite sides are parallel. All sides are equal. Each angle is a right angle.
<b>Kite</b> 	Exactly two pairs of consecutive sides are equal.
<b>Trapezoid</b> 	Only one pair of opposite sides are parallel.

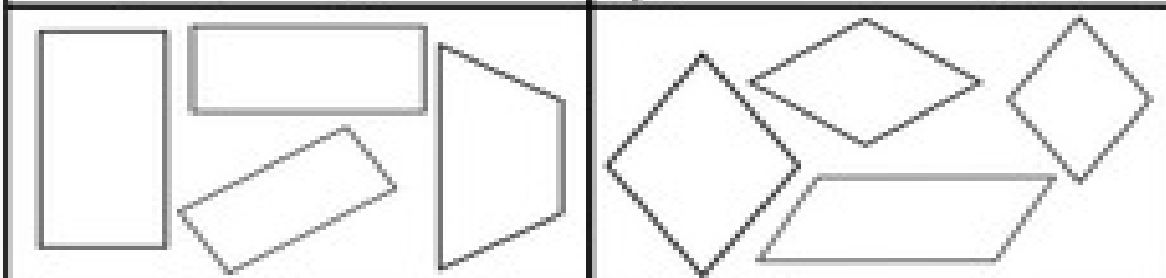
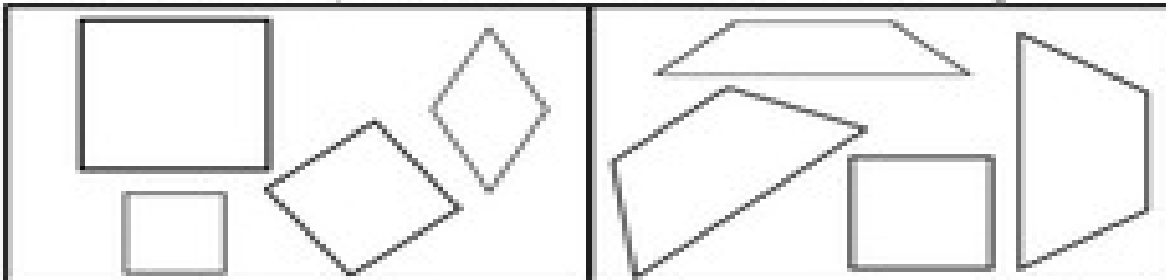
Name: \_\_\_\_\_

Practice Page

Quadrilaterals are four sided figures. They can be classified, or grouped by their attributes.



Cross out the quadrilateral that does not belong.



Name the subcategory these quadrilaterals belong to.



**Identifying Quadrilateral**

Write the name below each quadrilateral.

1)



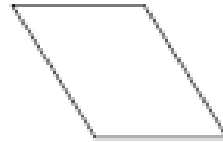
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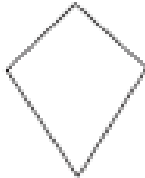
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3)



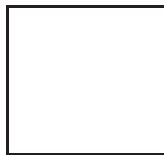
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4)



\_\_\_\_\_

5)



\_\_\_\_\_

6)



\_\_\_\_\_

7)



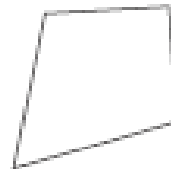
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8)



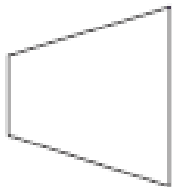
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9)



\_\_\_\_\_

10)



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11)



\_\_\_\_\_


12)




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**Quadrilaterals**


**Learning Objective:** Describe a quadrilateral using its special properties.



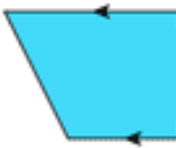
Parallelogram



Kite


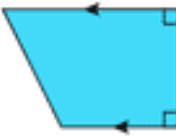




Rectangle



Trapezium

Use the words in the blue box to describe the following shapes.

Two pairs of equal angles

Two pairs of sides the same length

One pair of opposite angles are equal

Diagonals cross at 90°

Diagonals are the same length

Opposite angles are equal

Four perpendicular angles.

Two pairs of parallel lines

Draw each of these shapes and list their properties.

# Quadrilaterals

Cut out and paste in appropriate shape.

<p style="text-align: center;"><b>Trapeziums</b> No parallel sides</p>	<p style="text-align: center;"><b>Rhombus</b> Parallelogram with congruent sides</p>
<p style="text-align: center;"><b>Rectangle</b> Parallelogram with right angles</p>	<p style="text-align: center;"><b>Trapezoids</b> 1 pair of parallel sides</p>
<p style="text-align: center;"><b>Square</b> Parallelogram with right angles and congruent sides</p>	<p style="text-align: center;"><b>Parallelograms</b> 2 pairs of parallel sides</p>
	<p style="text-align: center;"><b>Rectangle</b> Parallelogram with right angles</p>

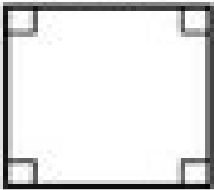
L. Exner 2012 [www.fabulousinfifth.blogspot.com](http://www.fabulousinfifth.blogspot.com)

## Quadrilaterals

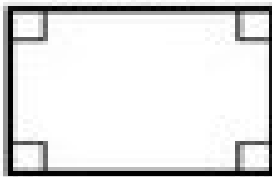


Words are hidden → ↓ and ↘

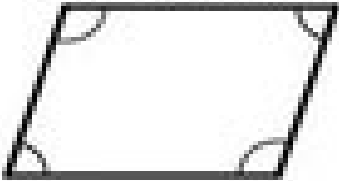
**Square**



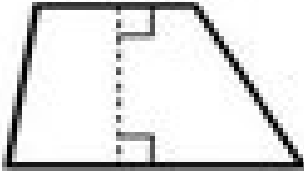
**Rectangle**



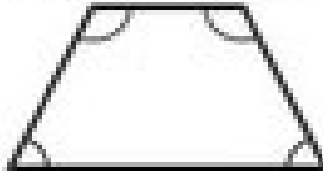
**Parallelogram**



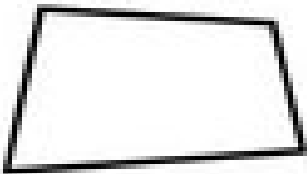
**Trapezoid**



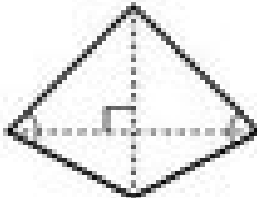
**Isosceles Trapezoid**



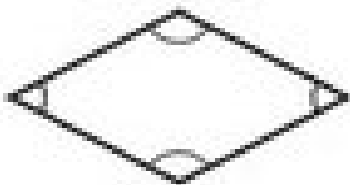
**Trapezium**



**Kite**



**Rhombus**



Extension- name the angles found in each shape and their properties.