

Seahorses

11 The seahorse is a type of small fish. There are about
19 36 different types of seahorse. They swim upright to
29 avoid **predators**. They have fins on their sides and
38 back which help them to swim. The seahorse eats
47 tiny plankton and shrimp. A seahorse needs to eat
57 a lot to survive. Adults can be seen eating between
67 30 and 50 times per day. Male seahorses give birth
77 to their young. They are the only creature that can
87 do this. The seahorse has a long, curled tail. They
95 curl this around seaweed in warm, shallow water
106 so that they are able to cling onto it while hiding.
114 Seahorses have their skeletons on the outside of
116 their bodies.



Answers

1. What do seahorses eat?



Seahorses eat tiny plankton and shrimp.

2. Why do you think that seahorses hide in the seaweed?



Accept any sensible inference, such as: I think that seahorses hide in the seaweed so that predators cannot find and eat them.

3. **They swim upright to avoid predators.**



What do you think that the word **predators** means in this sentence?

Accept any reasonable deduction based on the context of the sentence, such as: I think that the word predators means animals that eat other animals.

4. Write a question about seahorses that you would like to find out the answer to.



Accept any sensible question linked to seahorses, such as: Where do seahorses sleep?

Seahorses

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Quick Questions



1. What do seahorses eat?



2. Why do you think that seahorses hide in the seaweed?



3. **They swim upright to avoid predators.**

What do you think that the word **predators** means in this sentence?



4. Write a question about seahorses that you would like to find out the answer to.

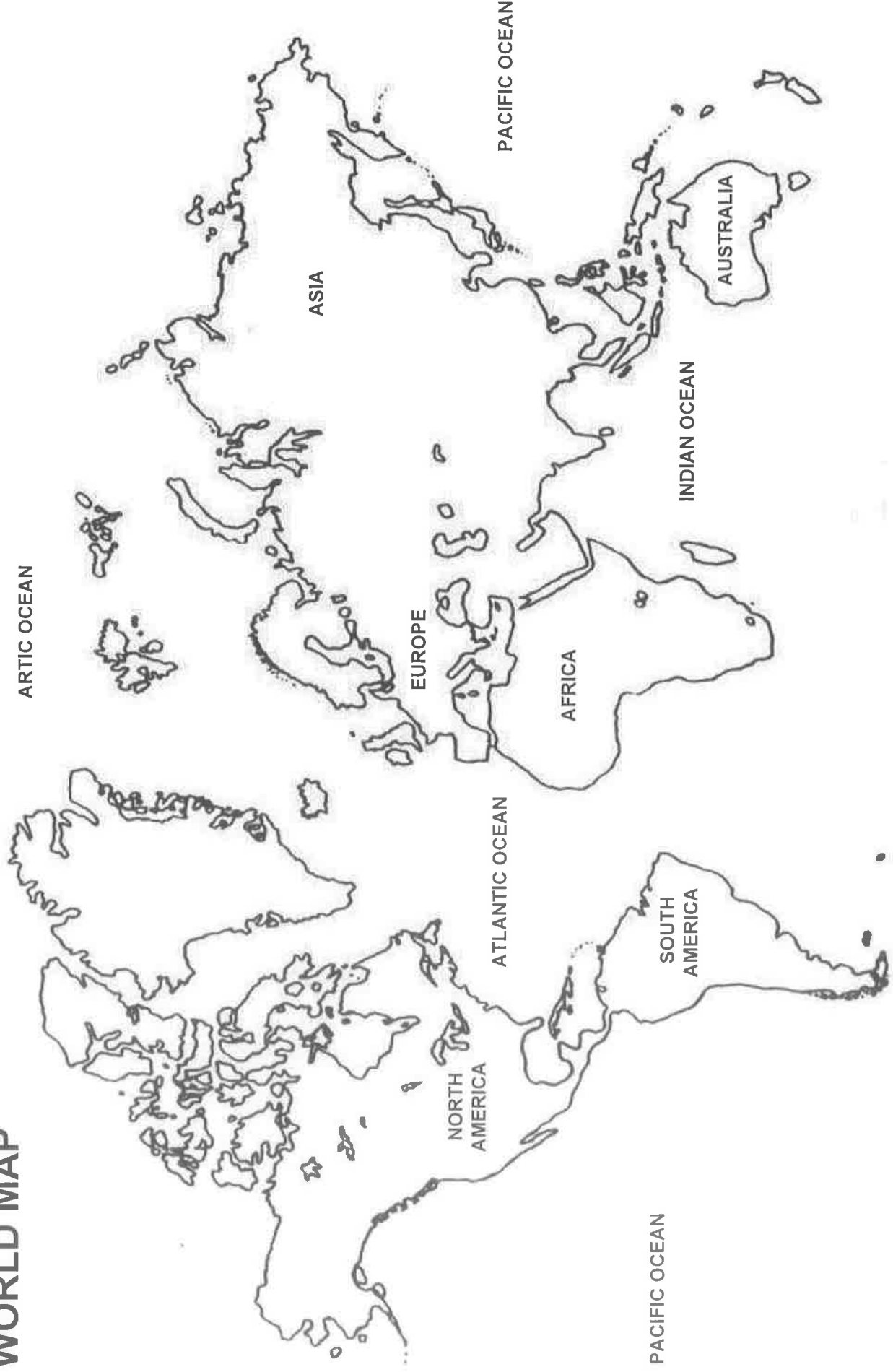


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Name: _____ Date: _____ Score: _____

WORLD MAP



SOUTHERN OCEAN

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Can I research an 'under the sea' creature?

Name of creature	
Habitat (e.g. open water spaces, underneath rocks...)	
Diet (what do they eat?)	
Predators (are there animals that might eat/harm them?)	
Interesting facts	

Lines and angles – vertical, horizontal and diagonal lines

Vertical lines go straight up and down.



Horizontal lines go straight across.



Diagonal lines go on a slant.



- 1 ✓ any vertical necks. ○ any horizontal necks. ✗ any diagonal necks.



- 2 How many lines are on these shapes?

a



vertical

horizontal

diagonal

b

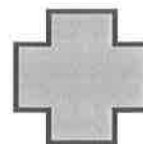


vertical

horizontal

diagonal

c



vertical

horizontal

diagonal

Shapes can be made up of straight lines, curves, or a mixture of both.



- 3 Draw a shape that is made up of:

a straight lines

b a curve

c a mixture of lines

Lines and angles – vertical, horizontal and diagonal lines

4 Solve these problems:

a Look at these letters. Let's explore their shapes and the lines that make them.

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

b These 2 letters belong together in a group. **P D**

Which other letters do you think belong in the same group?

Record them and explain to your partner why.

c These 2 letters belong together in a group. **T Y**

Which other letters belong in the group?

Record them and explain to your partner why.

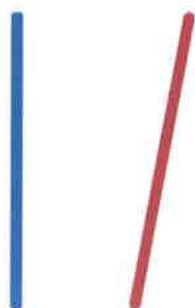
d These letters form a group. **A Q R N M V W X**

Can you see why? Record your thinking here.

Day 2 Extension:

Say which statements you agree or disagree with, remember to explain your answer.

Agree or disagree?



The blue line is vertical

The blue line and the red line are parallel as they never meet

Can I investigate why objects float in the sea?

Egg number	How many teaspoons of salt?	Observations	Did the egg float?
1			
2			
3			
4			
5			

Conclusion:

Can I use different sentence types to describe my sea creature?

Simple sentence

EG. An octopus has 3 brains.

Compound sentence (must include a conjunction)

EG. An octopus has blue blood so it is different from a human being.

Complex sentence (must include a subordinate clause and subordinating conjunction)

EG. Octopuses live under the sea in coral reefs because that is where they are able to survive best.

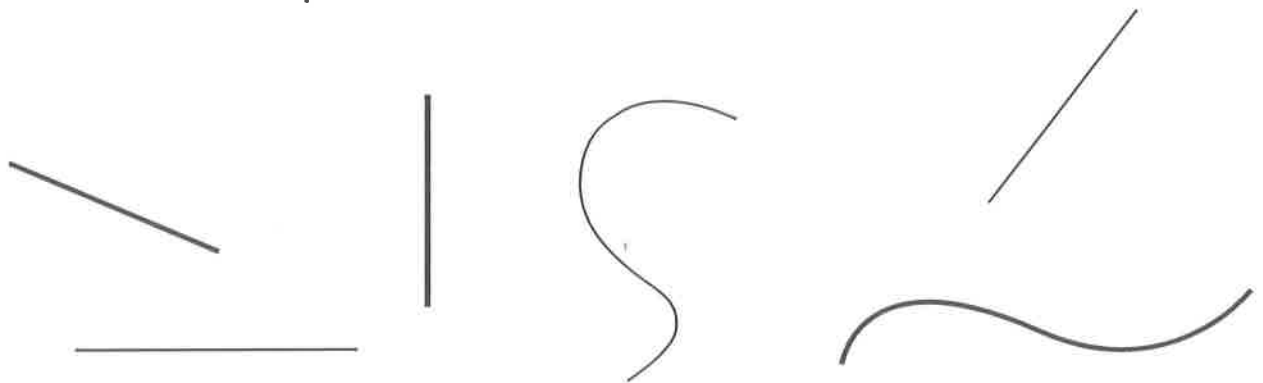
Lines and angles – parallel lines

Parallel lines are always the same distance from each other and can never meet. They can be any length and go in any direction.

Curves can also run parallel to each other.



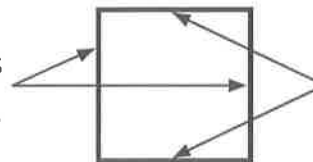
1 Draw lines or curves parallel to each of these.



Shapes can have parallel lines.

Look at this **square**.

These 2 lines are parallel.



These 2 lines are parallel.

A square has 2 sets of parallel lines.

2 Trace any parallel lines in matching colours. Finish the statements.

a



A square has _____ sets of parallel lines.

b



A triangle has _____ sets of parallel lines.

c



A rectangle has _____ sets of parallel lines.

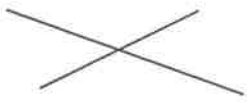





d



A regular hexagon has _____ sets of parallel lines.

Lines and angles – parallel and perpendicular lines






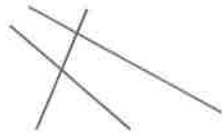
1 Look at each group of lines. Tick the parallel lines.

<p>a</p>  <input type="checkbox"/>	<p>b</p>  <input type="checkbox"/>	<p>c</p>  <input type="checkbox"/>
<p>d</p>  <input type="checkbox"/>	<p>e</p>  <input type="checkbox"/>	<p>f</p>  <input type="checkbox"/>

Perpendicular lines meet at right angles. Sometimes they intersect (cross over), sometimes they do not intersect.



2 Look at each group of lines. Tick the perpendicular lines.

<p>a</p>  <input type="checkbox"/>	<p>b</p>  <input type="checkbox"/>	<p>c</p>  <input type="checkbox"/>
<p>d</p>  <input type="checkbox"/>	<p>e</p>  <input type="checkbox"/>	<p>f</p>  <input type="checkbox"/>

3 List the first 10 letters of the alphabet in capitals. Circle the letters that have either parallel or perpendicular lines.

Habitat

Diet

Predators

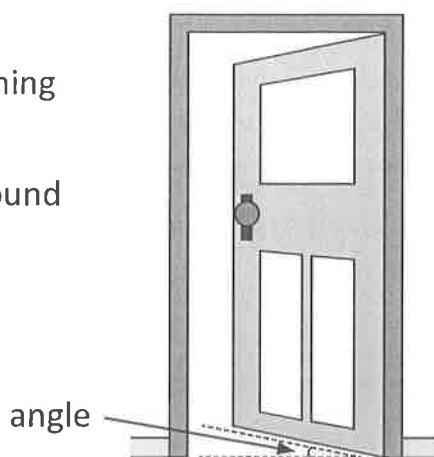
Interesting Facts

Lines and angles – angles

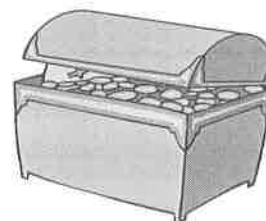
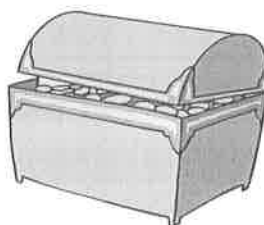
An angle is the amount of turning between two lines that meet.

There are lots of angles all around us. You have probably noticed many already.

Here are two examples of angles in your classroom:

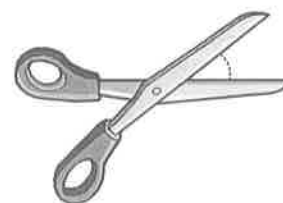


- 1 Look at the angle on each open chest lid. Trace the angle and then order the treasure chests' lids from the smallest to largest angle.



- 2 Follow the directions about angles.

a Tick the pair of scissors that has the largest angle.



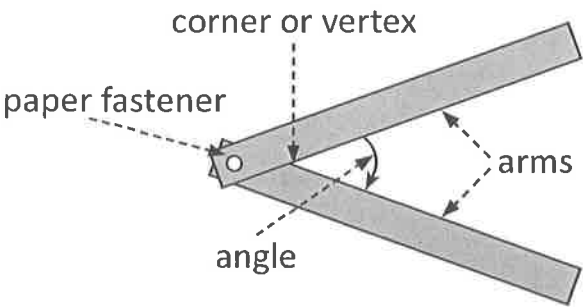
b Place a circle around the pair of scissors that has the smallest angle.

c Find something in your classroom that has an angle larger than anything on this page and draw it below:

Lines and angles – angles

If an angle is smaller than a right angle, it is called an **acute** angle; if it is larger it is known as an **obtuse** angle.

Make an angle tester with two straight pieces of cardboard joined with a paper fastener.



3 Use your angle tester to measure and compare these angles. Order them smallest to largest by writing 1 to 4 in the box. Write whether each is an acute, obtuse or right angle.

a

b

c

d

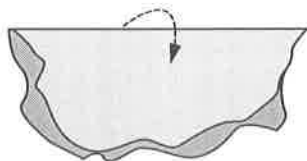
4 For this activity you will need a ruler and a sharp pencil. Follow the directions for each angle.

		Copy the angle	Draw a smaller angle	Draw a larger angle
a				
b				
c				

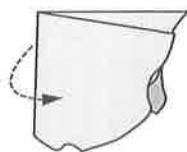
Lines and angles – angles

A right angle is an angle where two lines meet at a square corner.

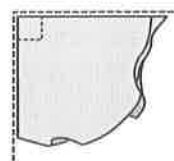
Make a right angle tester by folding a piece of paper like this:



Step 1: Fold a piece of paper in half.

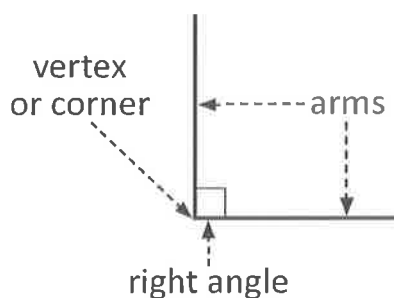


Step 2: Fold the same piece of paper in half again.

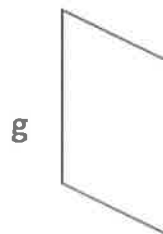
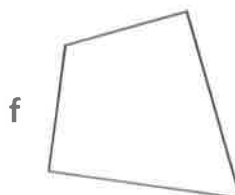
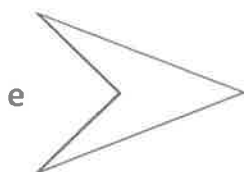
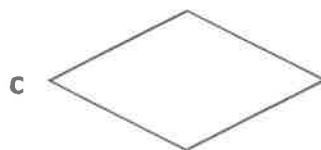


Step 3: Make sure that the creases are pressed down firmly.

You have made the corner of a square which is a right angle. A right angle is 90 degrees (90°).



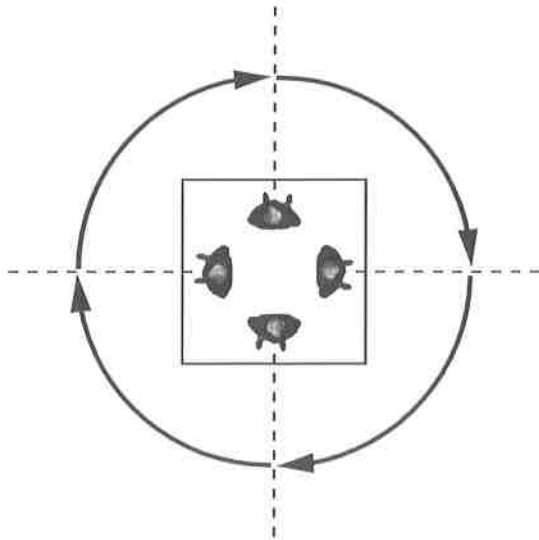
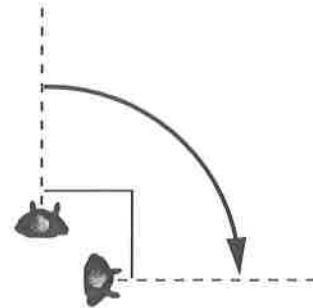
- 5 For each shape, circle the corners that are right angles. Write the number of right angles inside each shape.



- 6 Find some right angles in your classroom and list them here:

Lines and angles – right angles in turns

People and objects can make turns. This person has just made a quarter turn. A quarter turn is a right angle.

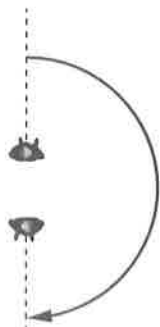


If you make two quarter turns, you will have turned through two right angles and made a half turn. You will be facing in the opposite direction to how you started.

Turn another right angle and you'll have made a three-quarter turn and you'll have made a whole turn and be back where you started.

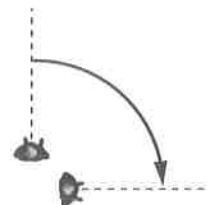
- 1** How many right angles has each person turned? How much of a turn have they made?

a



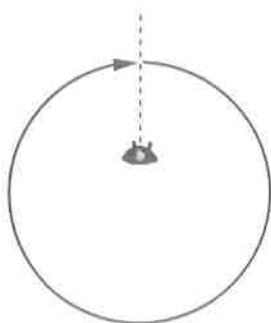
right angles = turn

b



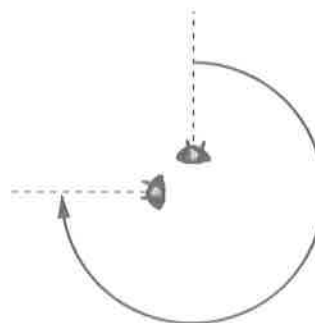
right angle = turn

c



right angles = turn

d



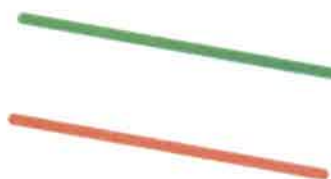
right angles = turn

Day 3

MATHS

Agree or disagree?

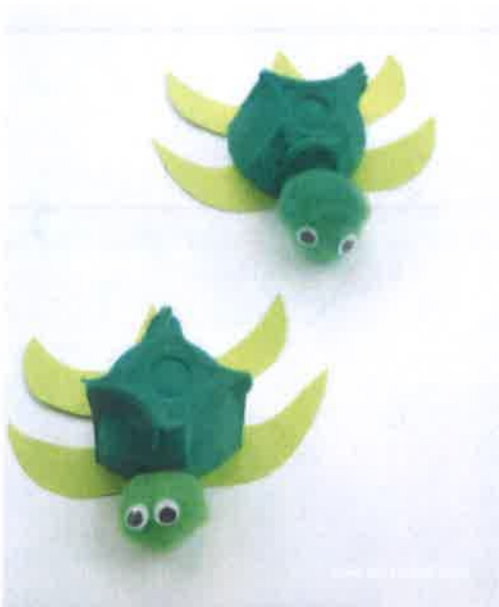
The green line
is horizontal



The lines are
parallel

Extension:





Say which statements you agree or disagree with, remember to explain your answer.



Investigating 2D shapes – properties of shapes

In this topic, we are looking at the properties of 2D shapes.

1 Draw a line to match each shape to its name.



square

triangle

rectangle


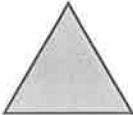

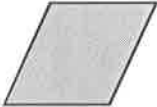
pentagon

hexagon

circle

octagon

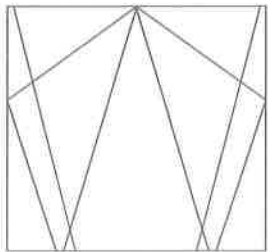
rhombus



2 Complete this table for five of the shapes shown above.

	Name	Number of sides	Number of vertices
a	rhombus		
b	pentagon		
c	triangle		
d	octagon		
e	hexagon		

3 Which shapes can you see in this diagram?



Investigating 2D shapes – properties of shapes

Let's look more closely at hexagons, pentagons and octagons.

A pentagon is a shape with 5 sides.

'Penta' means 5.

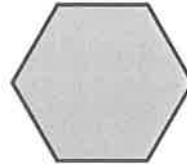
A regular pentagon has 5 equal sides and 5 equal angles.



A hexagon is a shape with 6 sides.

'Hexa' means 6.

A regular hexagon has 6 equal sides and 6 equal angles.



An octagon is a shape with 8 sides.

'Octa' means 8.

A regular octagon has 8 equal sides and 8 equal angles.



4 Join the dots using a ruler and name each shape:

1 •

2 •

1 •

8 •

• 3

a

b

5 •

• 2

7 •

• 4

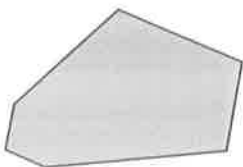
• 6

• 5

4 •

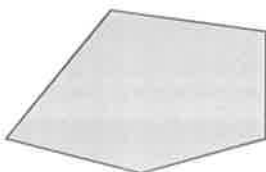
• 3

5

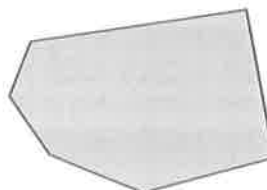


On the left is an irregular hexagon. It has 6 sides and 6 angles but its sides are all different lengths. Name each of the irregular shapes below:

a



b



irregular _____

irregular _____

You can do this by counting the sides.



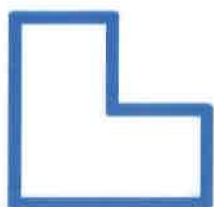
Day 5 Extension:

Say which shape is the odd one out and explain why it is.
Remember to use shape vocabulary in your explanation.

Odd one out



Odd one out



Series D – Geometry

Pages 1–2



2	a	b	c
vertical	0	2	6
horizontal	2	3	6
diagonal	8	2	0

3a–c Teacher check.

4a Observe student.

b B G J Q R

These letters are made up of curves and straight lines.

c Sample answer:

E, F, H, I, K, L, M, N, V, W, Z

These letters are made up of only straight lines.

d They all have diagonal lines.

Page 3



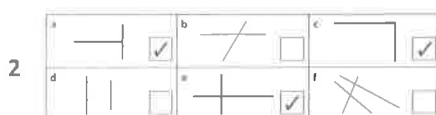
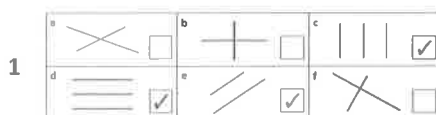
2a 2

b 0

c 2

d 3

Page 4



3 Answers will vary.

Pages 5–7

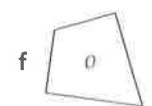
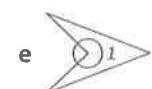
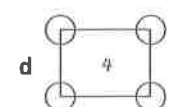
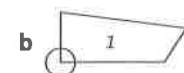
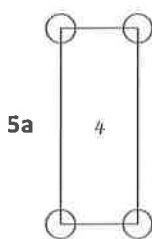
1 4; 1; 3; 2



c Answers will vary.

3 1; acute;
4; obtuse;
2; acute
3; right

4 Answers will vary.



6 Answers will vary.

Page 8

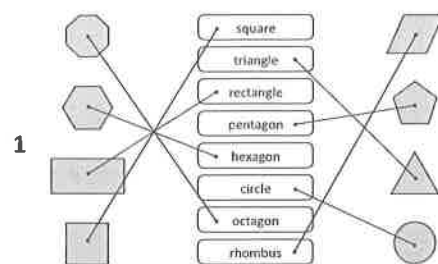
1a 2; half

b 1; quarter

c 4; whole

d 3; three-quarter

Pages 9–10



2a 4; 4

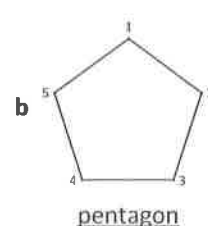
b 5; 5

c 3; 3

d 8; 8

e 6; 6

3 square, triangle, pentagon, trapezium



5a pentagon

b hexagon

Pages 11–12

1a 2; Yes; No; Answers will vary.

b 2; No; No; Answers will vary.

c 1; No; No; Answers will vary.

2 Teacher check.

3 Teacher check.

Page 13

1a square or rectangle

b rhombus

c trapezium

d parallelogram

