



الأكاديمية الإسلامية البريطانية  
BRITISH ISLAMIC  
ACADEMY

# END OF YEAR REVISION BOOKLET

Name:.....

CLASS: Year 4

SUBJECT: SCIENCE

**Q1. Owls**

(a) The owl has caught a mouse to feed its young.



The owl has good hearing for finding prey at night.

Look at the picture.

How else is the owl suited to **catching** its prey?

.....

1 mark

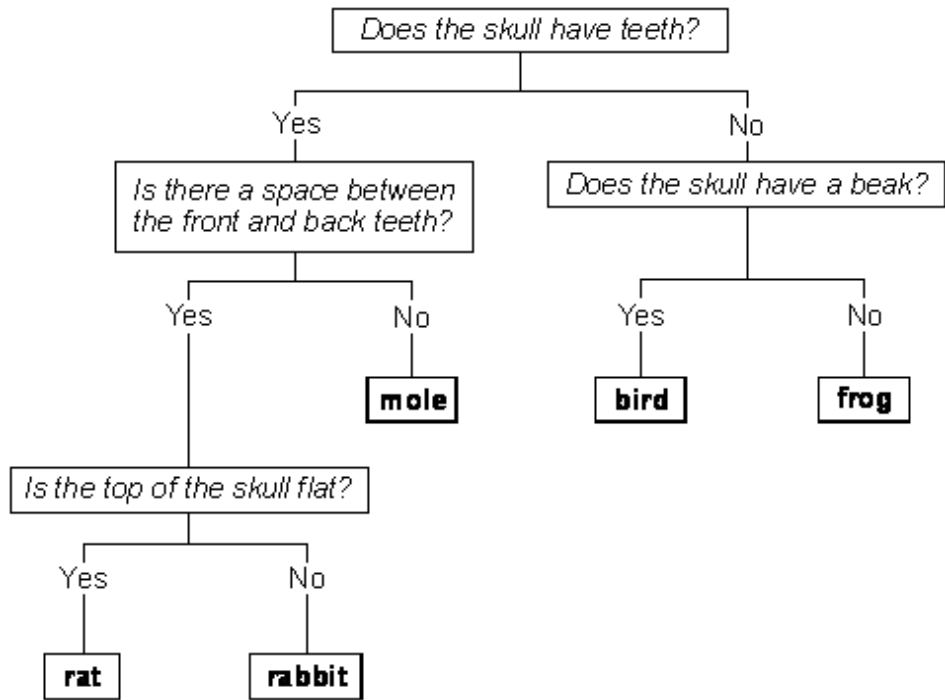
(b) Which three things do **all** animals do?

Tick **THREE** boxes.

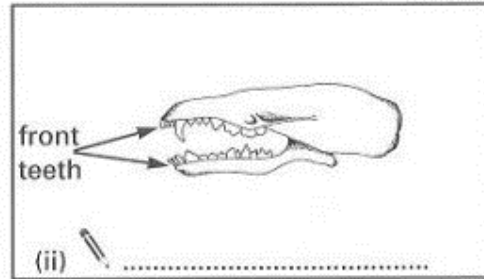
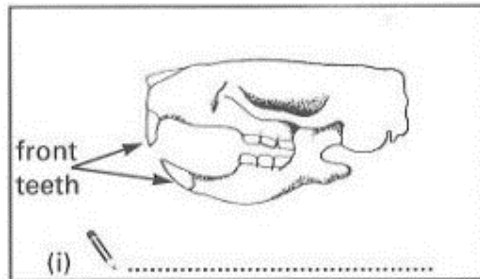
move	<input type="checkbox"/>	grow	<input type="checkbox"/>
play	<input type="checkbox"/>	walk	<input type="checkbox"/>
wash	<input type="checkbox"/>	reproduce	<input type="checkbox"/>

3 marks

(c) This key describes the skulls of some small animals that owls eat.



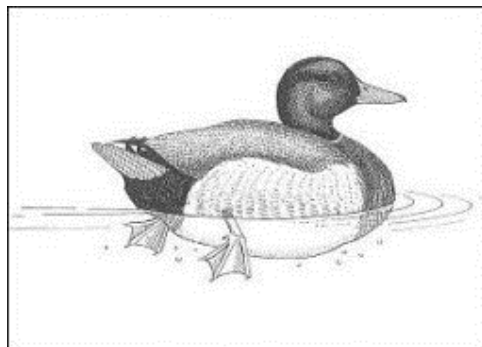
Use the key to identify the skulls shown below.



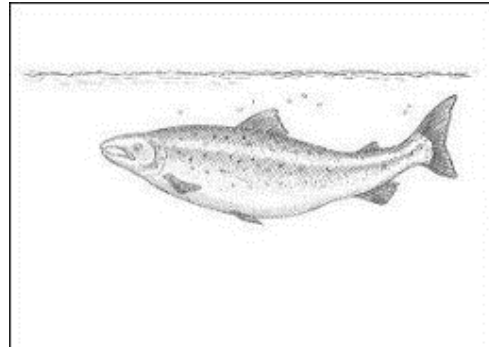
2 marks

**Q2. Freshwater River**

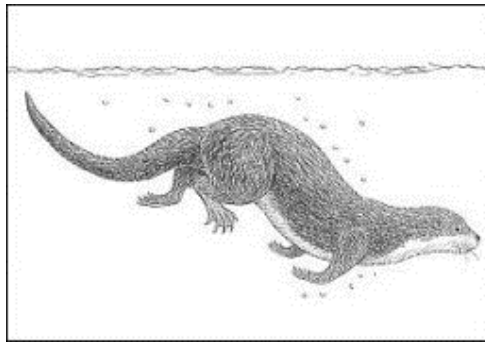
(a) These animals live in a freshwater river.



**duck**




**salmon**




**otter**

The otter has a strong tail which it uses to push itself through water.

What part of their body do these animals use to push themselves through water?

(i) duck  .....

1 mark

(ii) salmon  .....

1 mark

(b) Here is a food chain from the same river.


**algae** (*green plants*) → **water insects** → **salmon** → **otters**

Which is the **producer** in this food chain?

 .....

1 mark

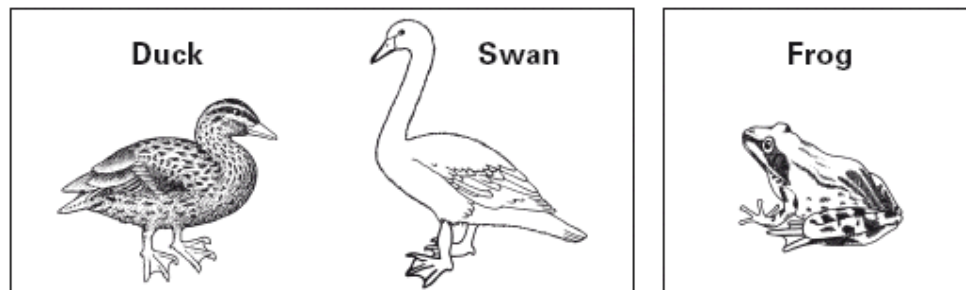
(c) What would be the effect on the number of otters in this river if **ALL** the water insects died?

 .....  
.....

1 mark

**Q3. River wildlife**

(a) Some children visit a river and see a duck, a swan and a frog.  
The children use the features of the animals to sort the duck and swan into one group and the frog into another.



- (i) Name a feature of the duck and the swan that puts them in the same group without the frog.

.....

1 mark

- (ii) Describe a feature the children could use to put the duck and the swan into different groups.

.....

1 mark

- (b) Ducks can be sorted into different groups.



Photographs reproduced by kind permission of J. Moores.

Tick ONE box to show why it is a good idea to sort the ducks into groups.



to help rescue ducks from polluted rivers

to help identify different ducks

to work out what a baby duck will look like when it grows

because there are a lot of plants ducks like to eat

1 mark

- (c) The children use the key below to identify some other birds they see.

Use the key to name TWO birds that have black feathers on their bodies.

Key to river birds:	
① Are the feathers on its body black?	Yes: GO TO ② No: GO TO ③
② Is its beak white?	Yes: <b>coot</b> No: <b>moorhen</b>
③ Is its beak yellow?	Yes: GO TO ⑤ No: GO TO ④
④ Is its beak red?	Yes: <b>shelduck</b> No: <b>mute swan</b>
⑤ Are the feathers on its wings mostly grey?	Yes: <b>heron</b> No: <b>male mallard</b>

..... and .....

2 marks

(d) Use the key to answer the question below.

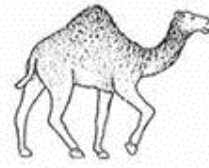
What colour are the wings and beak of a heron?

The wings are .....

The beak is .....

**Q4. Sorting animals**

(a) Some children went to their local zoo. They saw these animals:



ostrich

cow

butterfly

camel

sparrowhawk

Tick TWO boxes to show which two things the cow and camel have in common.

They both have horns.

They both have fur or hair.

They both have a hump.

They both have four legs.

1 mark

(b) Mandy and Halim sort all the animals using the following table.

Write the names of the five animals above into the correct boxes in the table.

One has been done for you.

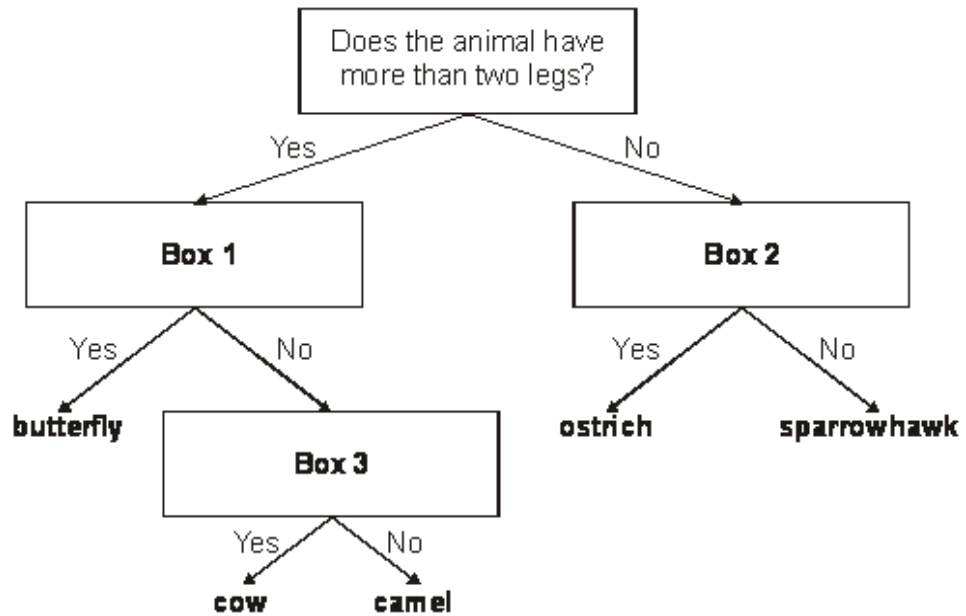
You can write more than one animal in each box.



	Has feathers	Does not have feathers
Can fly		
Cannot fly	ostrich	

2 marks

(c) Mandy and Halim sort the animals using the key below.



Three questions are missing from their key.

Circle 1, 2 or 3 next to each question below to show which box in the key the question goes in.

Question	The question goes in box ...		
Does it have a long neck?	1	2	3
Does it have horns?	1	2	3
Does it have antennae?	1	2	3

1 mark

(d) It is important for scientists to classify animals into groups.

Tick ONE box to show the best reason for classifying animals.



to compare the many types of animal

to find out which animals eat them

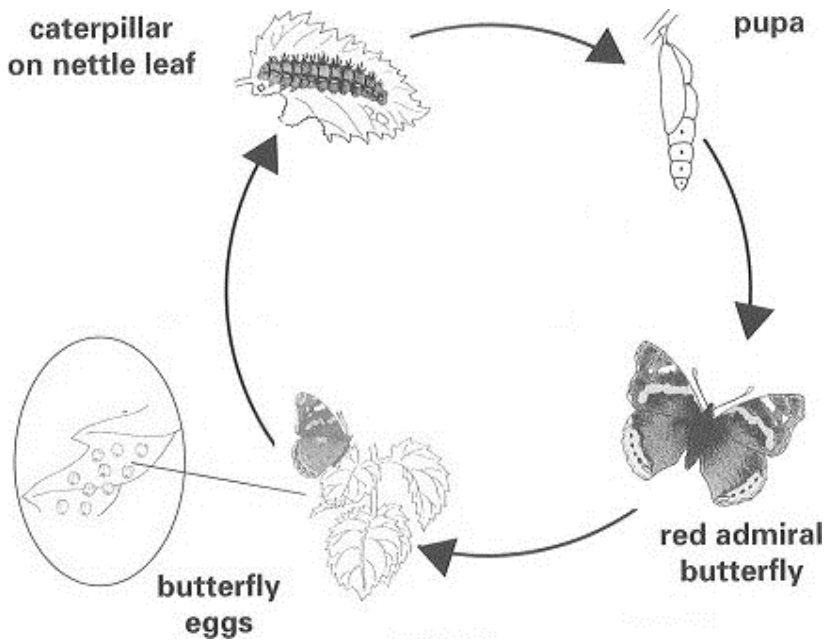
to find out which animals live in trees

to help find animals in the wild

1 mark

**Q5. Butterfly garden**

(a) This diagram shows the life cycle of a red admiral butterfly.



John wants to get rid of all the nettles in the school wildlife area. This will affect the red admiral butterfly.

Give **TWO** different reasons why nettle plants are important in the life cycle of the red admiral butterfly.



(i) .....

1 mark

(ii) .....

1 mark

(b) Some birds eat caterpillars.

Use the diagram to help you complete the **food chain** below.

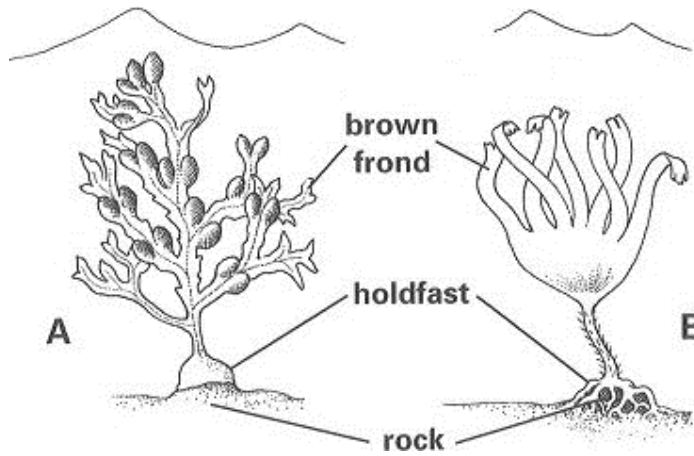


1 mark



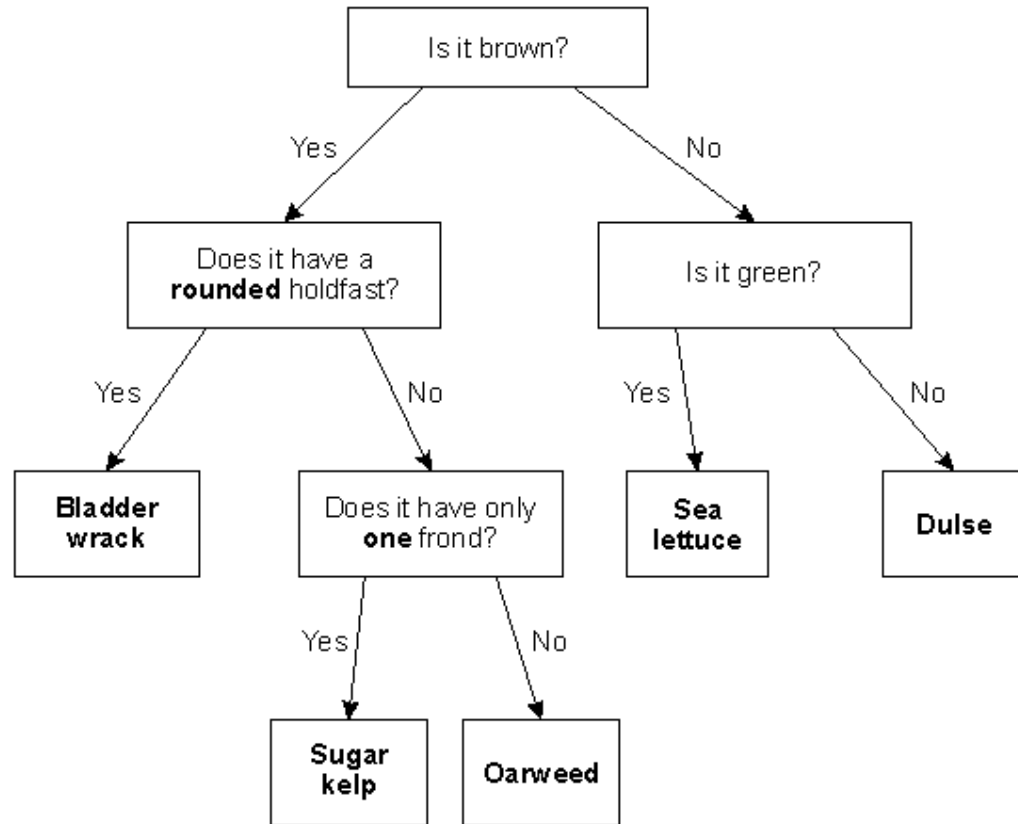
**Q6. Seaweeds**

(a) Seaweeds are plants. They live in the sea and on the seashore. Some children are using a key to identify two **brown** seaweeds.



Use the key below to help you name seaweeds **A** and **B**.

**A** ..... **B** .....



2 marks

(b) One of the seaweeds on the key is red.

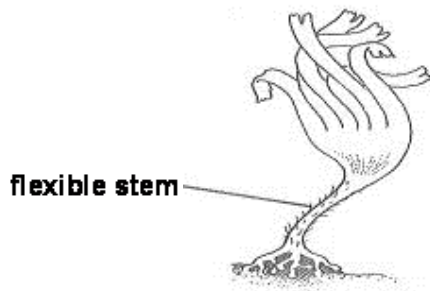
Name the red seaweed.



.....

1 mark

(c) This seaweed has a flexible stem.



Waves pull the seaweed in different directions.

Explain how a **flexible** (bendy) stem helps this seaweed to survive in the sea's waves.



.....  
.....

1 mark

(d) Seaweed has a holdfast which keeps it in place.

Plants that live on land do not have a holdfast.

What part of a **land**-plant keeps the plant in place?



.....

1 mark

(e) The seaweed's fronds use light to make food material so that the seaweed grows.

What part of a **land**-plant uses light to make food material?



.....

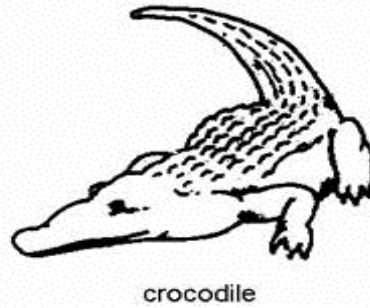
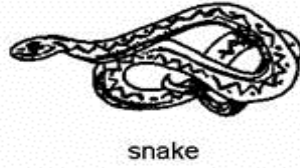
1 mark

**Q7. Living things**

Use the information on below to put the animals in groups.

Write the name of each animal in the correct box on the next page.

Two have been done for you.  
Some boxes have more than one animal.









If it	<p>.. has hairy skin, .. feeds milk to young and .. is warm-blooded</p>	 then it is a	<p><b>mammal.</b> <i>human</i></p>
If it	<p>.. has feathers, .. lays eggs and .. is warm-blooded</p>	 then it is a	<p><b>bird.</b> <i>penguin</i></p>
If it	<p>.. has dry scaly skin, .. crawls on land, .. lays eggs and .. is cold-blooded</p>	 then it is a	<p><b>reptile.</b></p>
If it	<p>.. lives on land and in water and .. lays eggs in water</p>	 then it is an	<p><b>amphibian.</b></p>
If it	<p>.. lives in water and .. has gills and fins</p>	 then it is a	<p><b>fish.</b></p>

5 marks

**Q8. Animals in their environment**


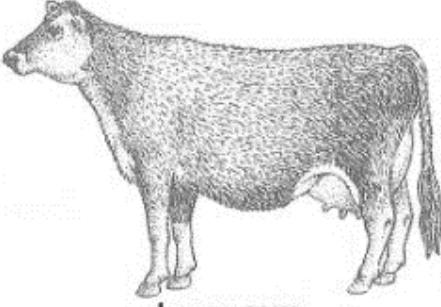
(a) Draw **THREE** lines to match each of these animals to the environment in which it lives.



 <b>Tadpole</b>	 <b>Woodpecker</b>	 <b>Worm</b>
 <b>Pond</b>	 <b>Soil</b>	 <b>Tree</b>

1 mark

(b) Highland cows look different from other types of cow.

 <b>Highland cow</b>	 <b>Jersey cow</b>
--	---

Look at the pictures of the cows.

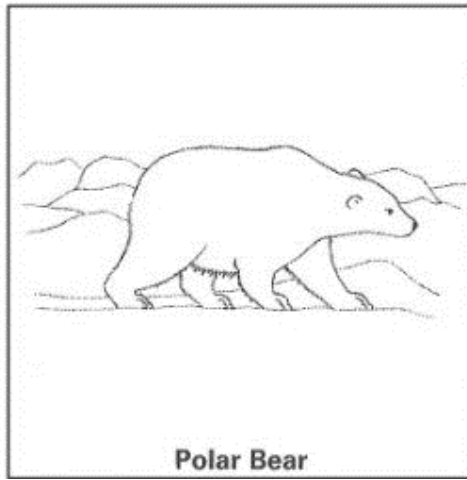
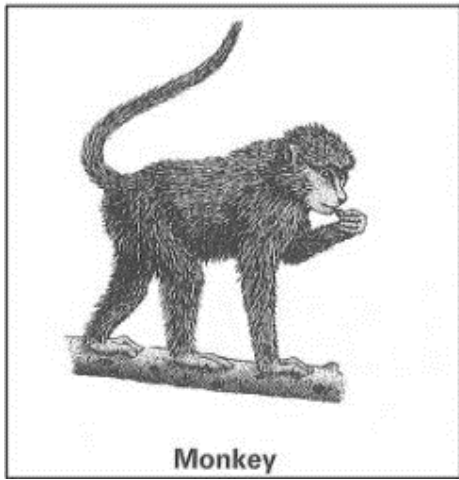
How are Highland cows better protected against cold weather than Jersey cows?




.....

1 mark

(c) These animals live in different environments.



Complete the table below to describe **ONE** feature of a Polar Bear. Say how the feature helps the Polar Bear to live in its environment.

<b>Animal</b>	<b>Lives in...</b>	<b>One feature that helps the animal to live in its environment</b>	<b>How the feature helps</b>
<b>Monkey</b>	rainforest	<i>it has a tail</i>	<i>to help it balance</i>
<b>Polar Bear</b>	the Arctic	 <i>it has .....</i> .....	..... .....



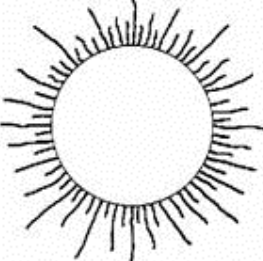





1 mark

**Q9. Vegetable Patch**

(a) Kami sees all of the things below while he is working in his vegetable patch.

Tick **FIVE** boxes to show which of these things are living.




 <b>water</b> <input type="checkbox"/>	 <b>tree</b> <input type="checkbox"/>	
 <b>sun</b> <input type="checkbox"/>	 <b>starling</b> <input type="checkbox"/>	 <b>fly</b> <input type="checkbox"/>
 <b>rabbit</b> <input type="checkbox"/>	 <b>bonfire</b> <input type="checkbox"/>	 <b>daisy</b> <input type="checkbox"/>

2 marks

- (b) Kami grows cabbages in his vegetable patch. Some of the **cabbages** are eaten by **snails**. Some of the snails are eaten by birds called **thrushes**.

Write a food chain to show this information.


Use arrows in your food chain.

 .....

2 marks

- (c) A cabbage has many leaves.

Tick **ONE** box to show why leaves are important to a cabbage plant.

 The leaves...


- |                  |                          |                                  |                          |
|------------------|--------------------------|----------------------------------|--------------------------|
| attract insects. | <input type="checkbox"/> | anchor the plant in the ground.  | <input type="checkbox"/> |
| collect pollen.  | <input type="checkbox"/> | produce new material for growth. | <input type="checkbox"/> |

1 mark

- (d) Kami cuts a cabbage in half. The leaves on the outside of the cabbage are dark. The leaves on the inside are a pale yellow colour.

Which statement best explains why the leaves on the inside are paler?

Tick **ONE** box.

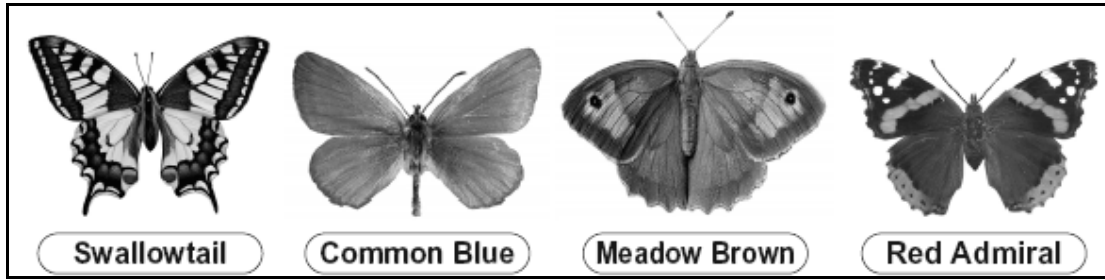
 The leaves on the inside of the cabbage get...

- |                |                          |             |                          |
|----------------|--------------------------|-------------|--------------------------|
| less light.    | <input type="checkbox"/> | less water. | <input type="checkbox"/> |
| more minerals. | <input type="checkbox"/> | more air.   | <input type="checkbox"/> |

**Q10. Butterflies**

(a) Some children visit a butterfly park.

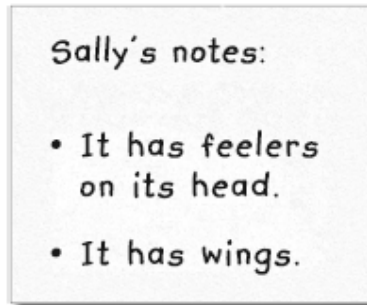
They use the pictures below to identify the butterflies they see.




Swallowtail image © Fingerprint design 2010

Sally makes some notes about one butterfly she sees. Oliver tries to use Sally's notes to identify the butterfly.

Explain why Oliver **cannot** use Sally's notes to identify the butterfly.

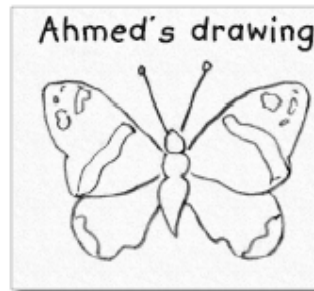


 .....

1 mark

(b) Ahmed drew a butterfly. It is **not** a Common Blue.

Tick **ONE** feature of **Ahmed's** butterfly and describe how it is different from a Common Blue.



 Feature:      body       wings

This feature of **Ahmed's** butterfly is different because .....


.....

1 mark



(c) The children write conclusions about the butterflies.


Look at the butterflies and decide whether each conclusion is **true**, **false** or you **cannot tell**. Tick **ONE** box for each conclusion.

 All of these butterflies...	True	False	Cannot tell
have spots on their wings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
are eaten by the same predators.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
are the same age.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
have antennae which are longer than their bodies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 marks

(d) The number of butterflies in Britain is gradually getting smaller.

Tick **TWO** boxes to show what is likely to cause the number of butterflies to get smaller.

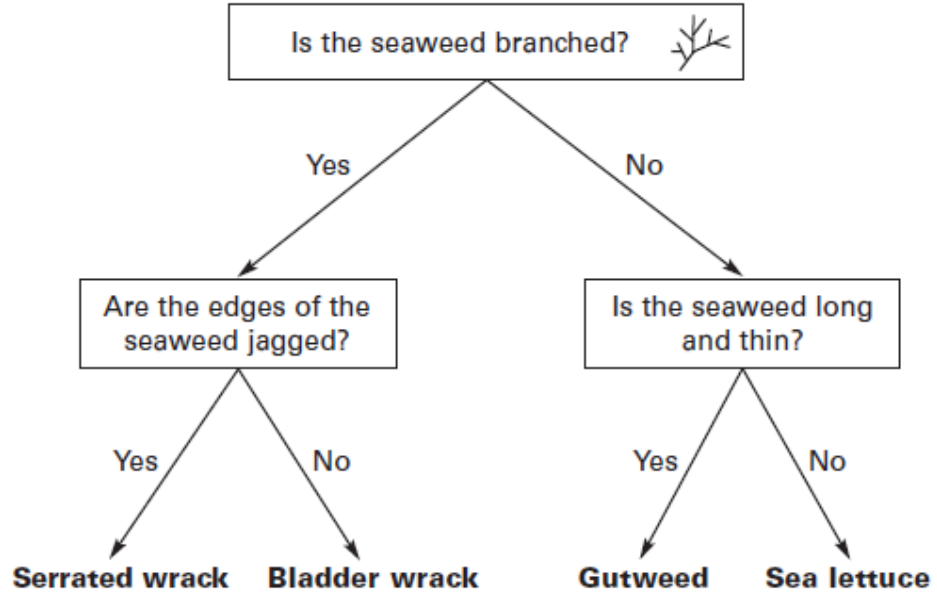
 There are fewer butterflies because there are...	
more houses being built on woodland or grassland.	<input type="checkbox"/>
more schools with wildlife areas.	<input type="checkbox"/>
fewer predators eating caterpillars and butterflies.	<input type="checkbox"/>
fewer plants which butterflies feed on being grown in gardens.	<input type="checkbox"/>
fewer diseases among the butterflies.	<input type="checkbox"/>

2 marks

**Q11. Seaweed and trees**

(a) Maria found different types of seaweed on the beach.

Her teacher has a key to identify the seaweeds.



Use the key to identify the different seaweeds below.

Seaweed A has been done for you.



**Seaweed A is**



**Seaweed D is**



**Seaweed C is**



**Seaweed B is**

Bladder wrack

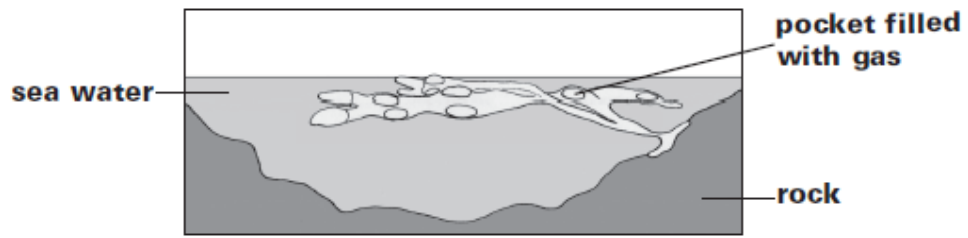
.....

1 mark

(b) Bladder wrack seaweed has pockets filled with gas. The pockets help it float near the surface of the water to get more sunlight.

Draw **ONE** arrow on the diagram to show the force from the water that makes the seaweed float near the surface of the water.





1 mark

(c) Trees also have features that help their leaves to get as much sunlight as possible.

Tick **ONE** feature of a tree and explain how this feature helps the leaves to get as much sunlight as possible.



trunk

branches

How the feature helps the leaves to get sunlight: .....

.....

1 mark

(d) Seaweeds do not have roots. Trees do have roots.

Tick **THREE** boxes to show the functions of tree roots.

to make seeds

to absorb water

to anchor the plant in the ground

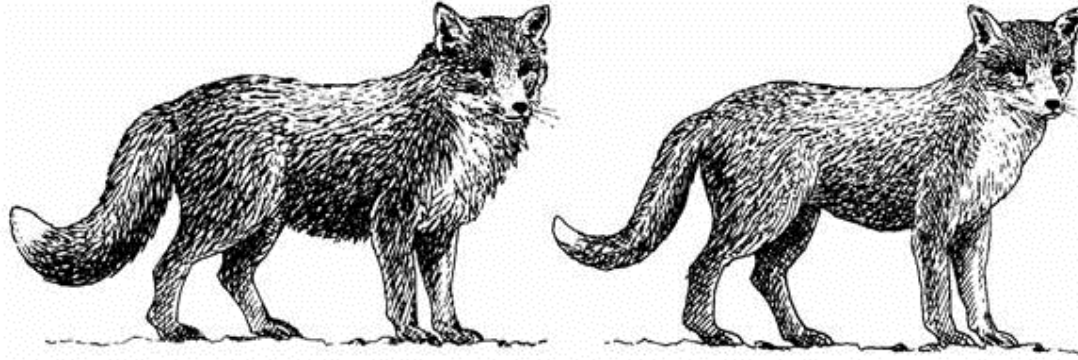
to take up materials

to carry new material for growth to the leaves

to protect the plant from predators

1 mark

Q12. (a) Here are pictures of two fully grown foxes from different parts of the world.



A

B

Fox A is adapted to a cold part of the world.

It has a thick layer of fur.

Write **ONE** other way some mammals are adapted to cold climates.



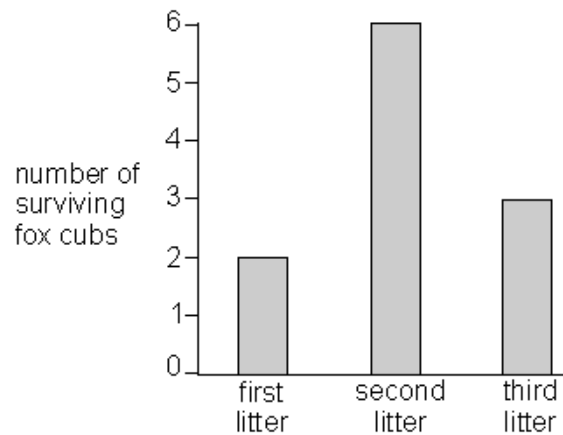
.....

1 mark

(b) A female fox gave birth to a litter of cubs in three successive years.

Each litter had six live cubs born into it.

The graph shows how many fox cubs survived to become adults from each litter.



Write **ONE** possible reason for the change in the number of fox cubs that survived from the third litter compared with the second litter.



.....

1 mark

(c) The number of adult foxes in the area changed over three years.

Year	1994	1995	1993
Number of adult foxes	11	16	14

Write **ONE** possible reason for the change in numbers of adult foxes from 1994 to 1995.

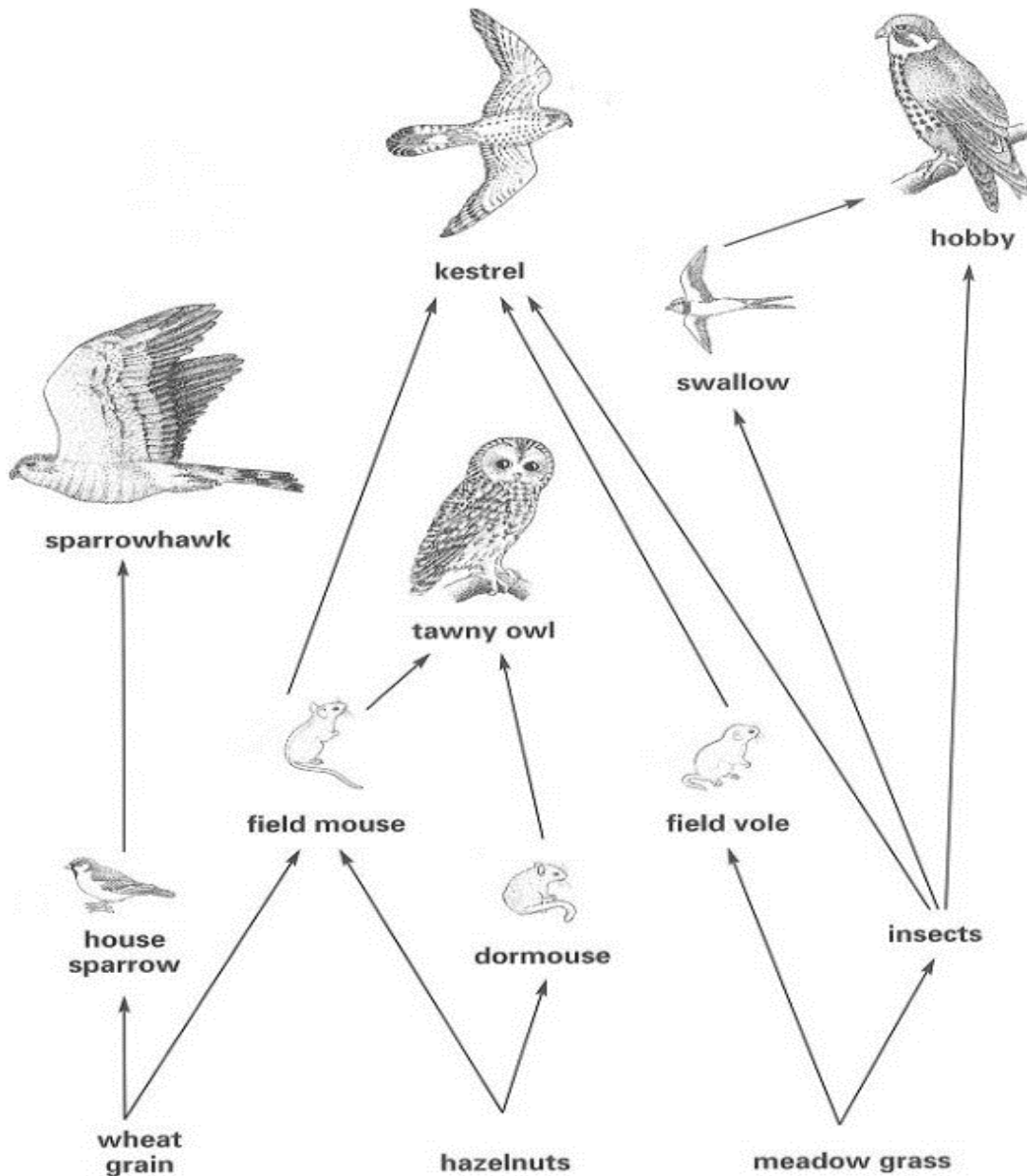
.....

.....

1 mark

**Q13. Some children were learning about food webs.**


They made this web about British animals.



(a) Use the food web to help you answer the following questions.

The tawny owl is a predator in **more than one** food chain.

Write down **each** food chain in which the tawny owl is a predator.

 .....

.....

.....

1 mark

(b) In autumn, swallows migrate (fly to warmer countries).

Kestrels do not migrate.

Use the food web to compare the **prey** of each of these two birds.

Suggest why swallows migrate, but kestrels do not.

 .....

.....

1 mark

(c) Hobbies migrate in autumn.

If **fewer** hobbies returned to Britain in spring, some animals in the food web might **increase** in number during the year.

On the web, draw a circle around **all** the animals which might **increase** in number if **fewer** hobbies returned.

2 marks