

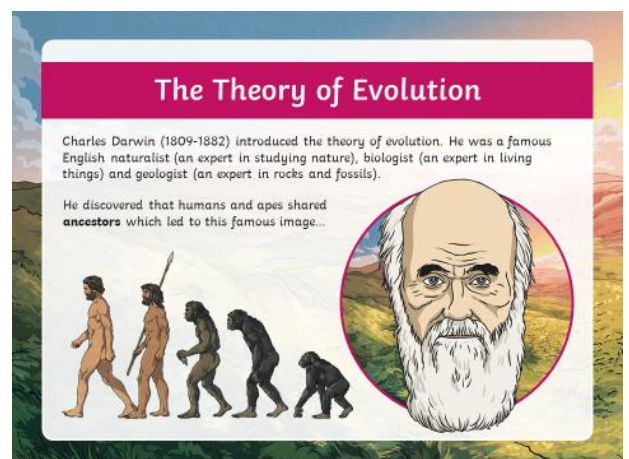
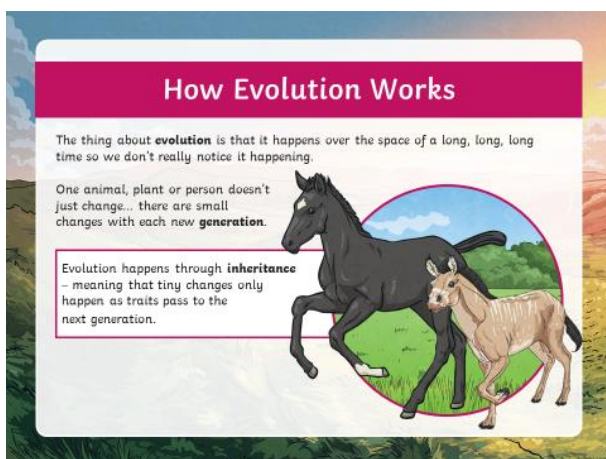
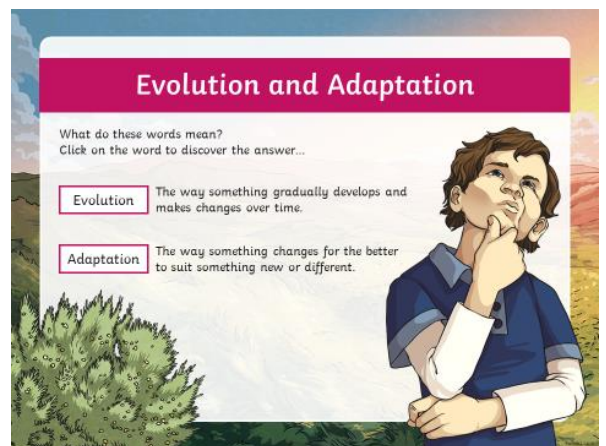
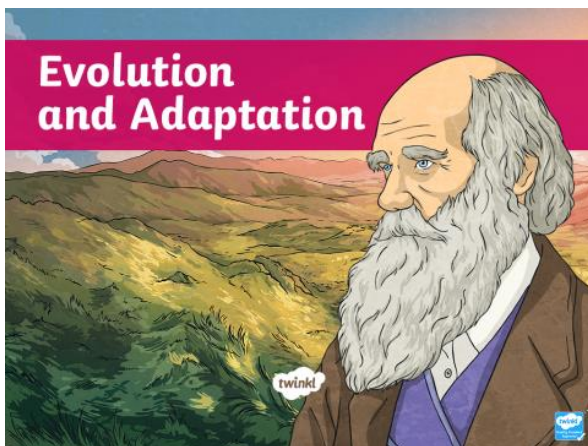
## Topic Support Pack Week 8

### Lesson 1 – Rivers

One of your lessons from last week was to create your own cross section of a river – that was a pretty big project! So I am giving you another chance this week to complete it if you wish. Have a look in last weeks topic pack for more information.

### Lesson 2 – Adaptation

Read through the power point slides below



## What Sort of Changes?

Animals and plants evolve to make adaptations to not only survive but to survive better. Some of these changes are down to habitats.



Darwin studied different finches living in different parts of the Galapagos Islands and realised, even though they were different, they all had the same ancestors! Some had evolved to have larger beaks in certain areas, some with smaller beaks in other areas due to different food being available.

## Small Changes Add up to Big Changes

Over time, the result of a few generations start to make noticeable differences.

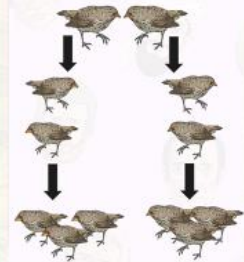
### Looking at the Galapagos finches

The ones with large beaks reproduced and had offspring.

More of these offspring inherited large beaks and survived.

In other parts of the Galapagos, smaller beaks ensured better survival than larger ones.

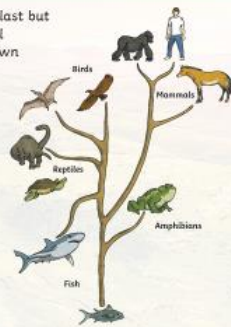
The adaptations meant that over a long period of time, the Galapagos finches evolved adaptive traits that caused differences between them.



## Small Changes Add up to Even Bigger Changes

Each generation is slightly different from the last but different families make their own generational changes and this can lead to species going down different evolutionary paths.

This is part of the tree of life that shows how birds, reptiles and even humans developed from fish... but remember... over millions of years!



After reading the ppt, can you complete the worksheet below about how 2 animals have adapted to their habitats. Try and think of as many features as you can.

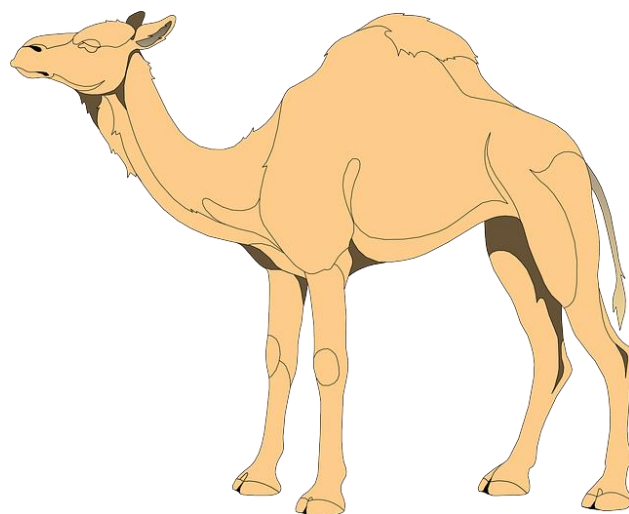
LO - to know how animals and plants have adapted to survive in different environments.



Polar bears have big, flat paws to help them walk on the snow.

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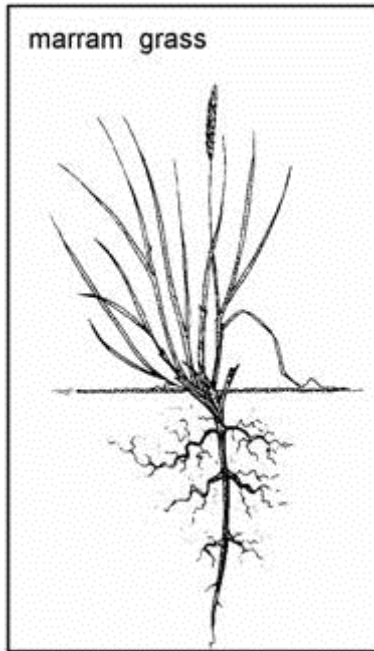
Camels have long eye lashes which help to keep the sand and flies out of their eyes.




### Lesson 3 - Adaptation and Evolution

Can you complete the science SATs questions all about adaptation and evolution.

Marram grass grows in very sandy places.



Explain how the long roots of the marram grass help it to survive in very sandy places.

 .....

.....

1 mark

**Q2. 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

☐

grow

☐

play

☐

walk

☐

wash

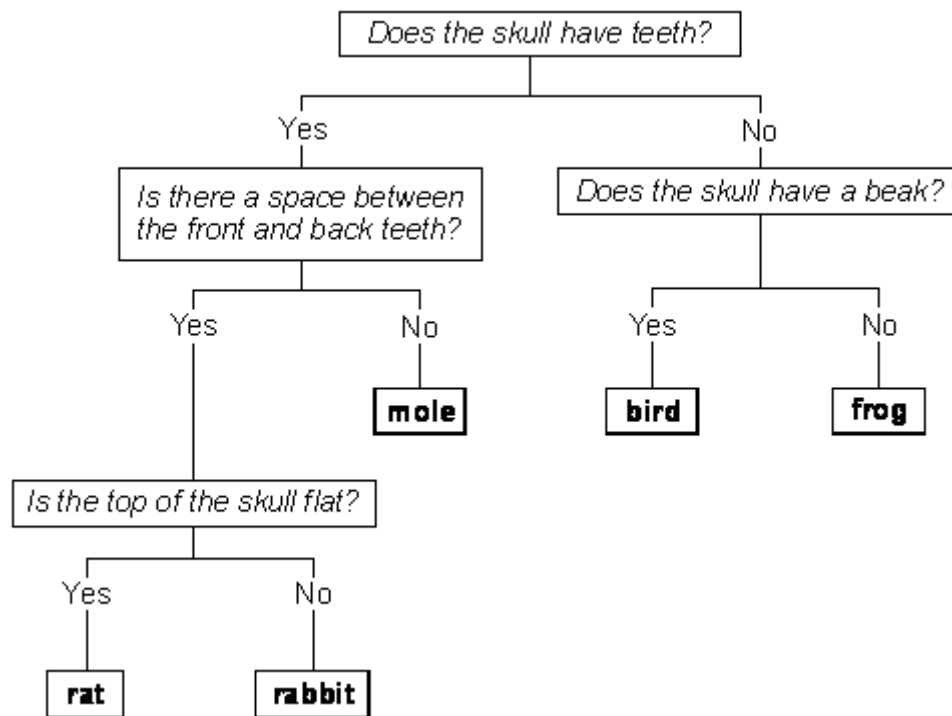
☐

reproduce

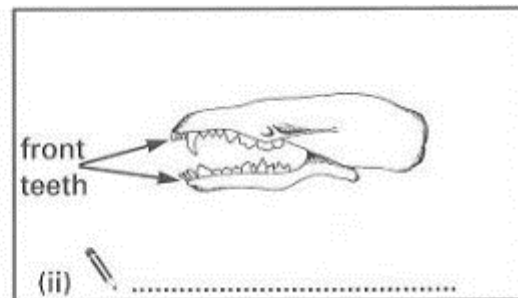
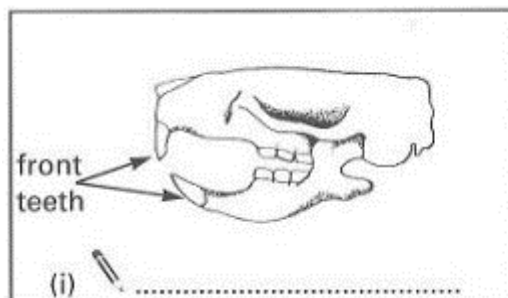
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3 marks

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



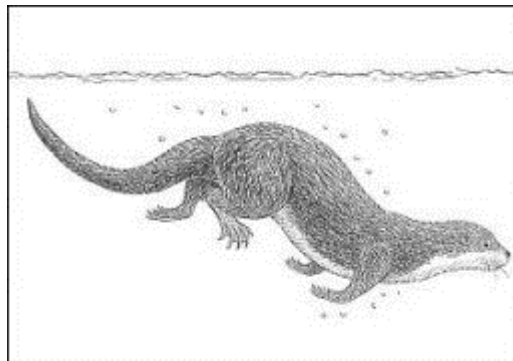
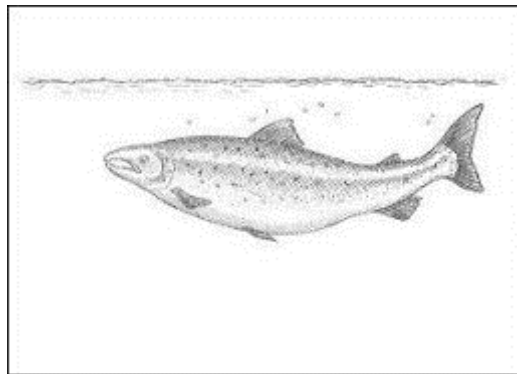
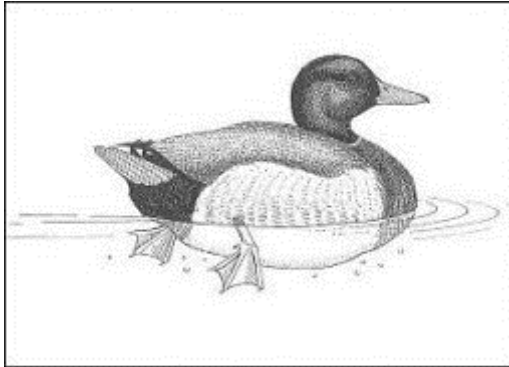
Use the key to identify the skulls shown below.



2 marks

**Q3. Freshwater River**

(a) These animals live in a freshwater river.



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?

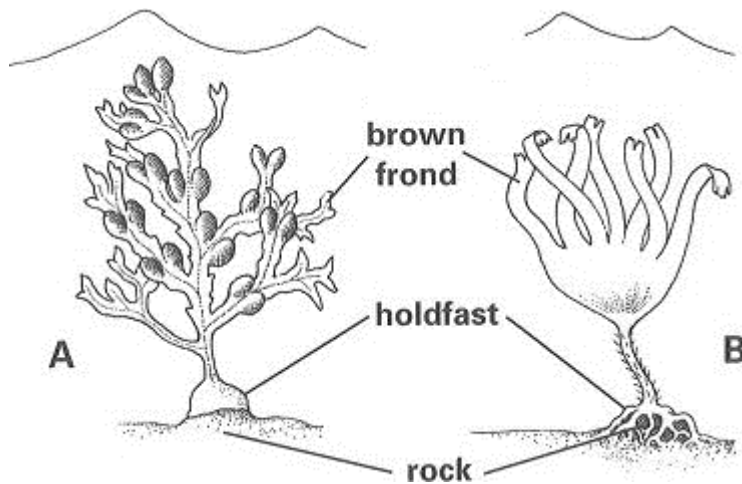


.....

1 mark

### 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**.

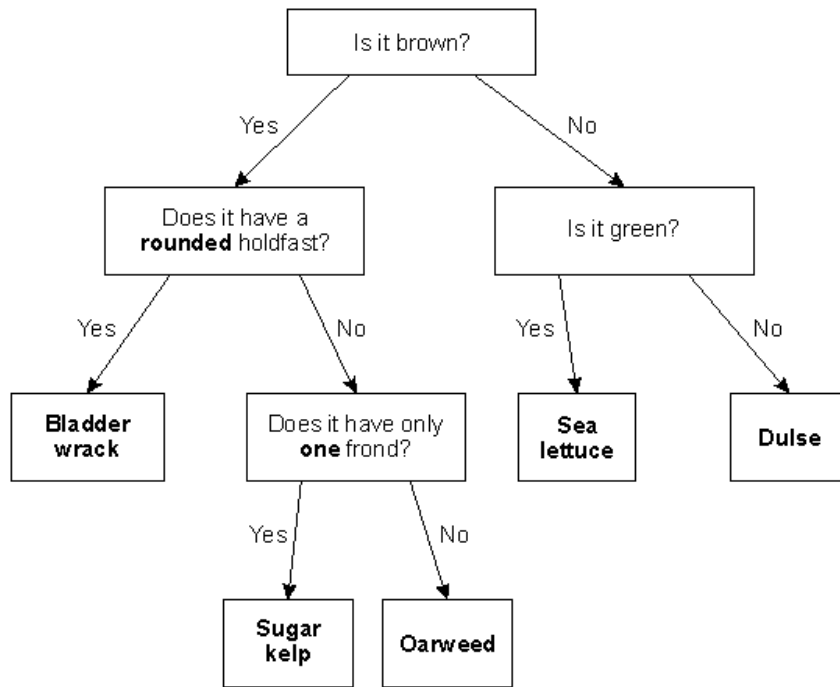


**A** .....

**B**

.....





2 marks

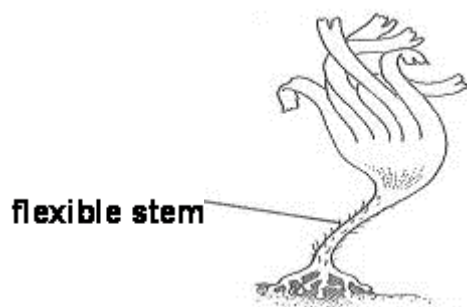
(b) One of the seaweeds on the key is red.

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.

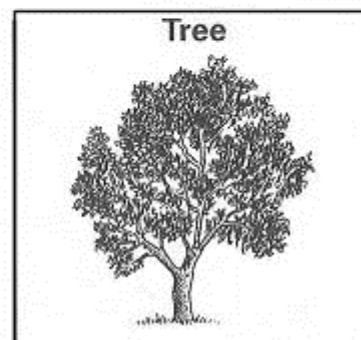
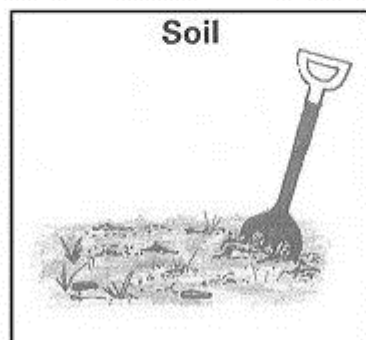
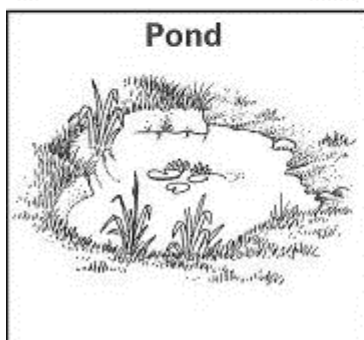
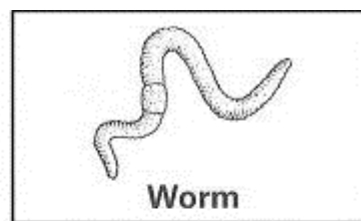
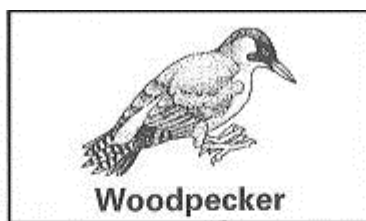
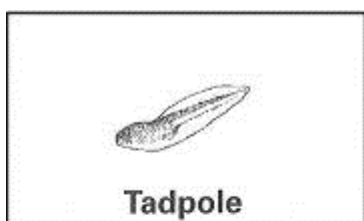
What part of a **land**-plant uses light to make food material?

.....  
 .....

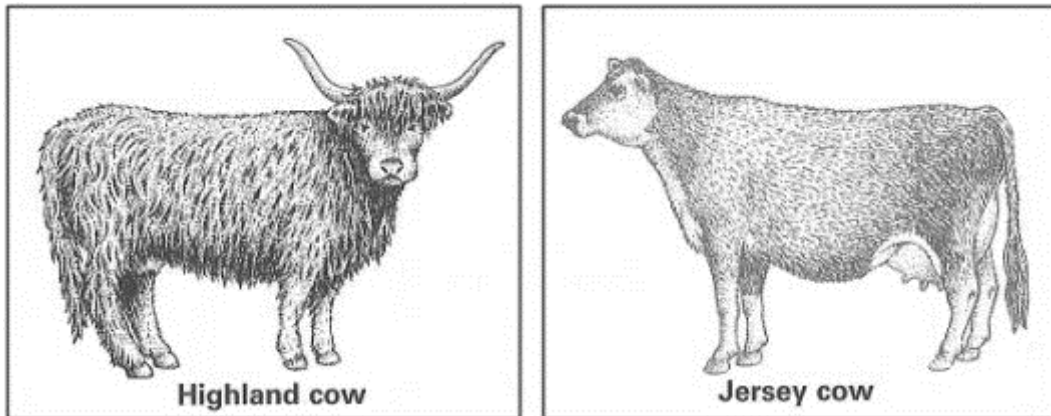
1 mark

## Q7. Animals in their environment

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



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



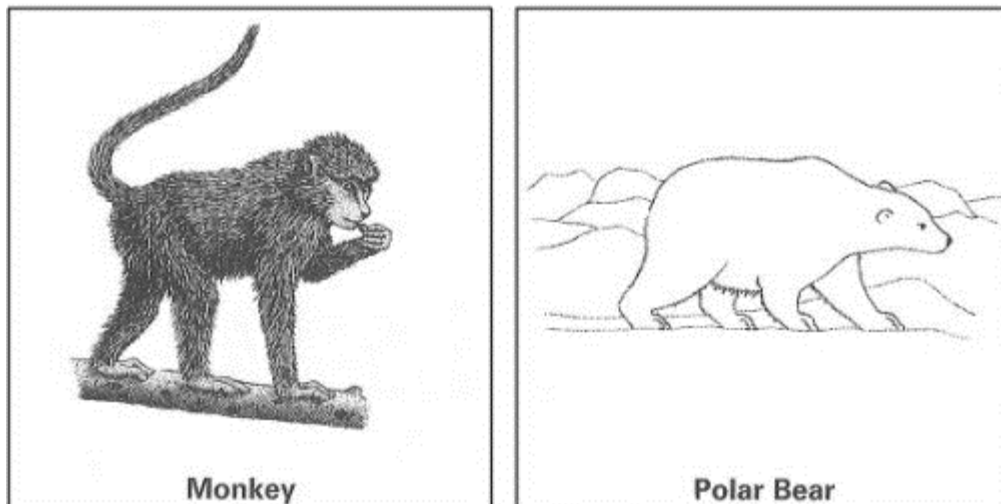
Look at the pictures of the cows.

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


.....  
.....

1 mark

- (c) These animals live in different environments.



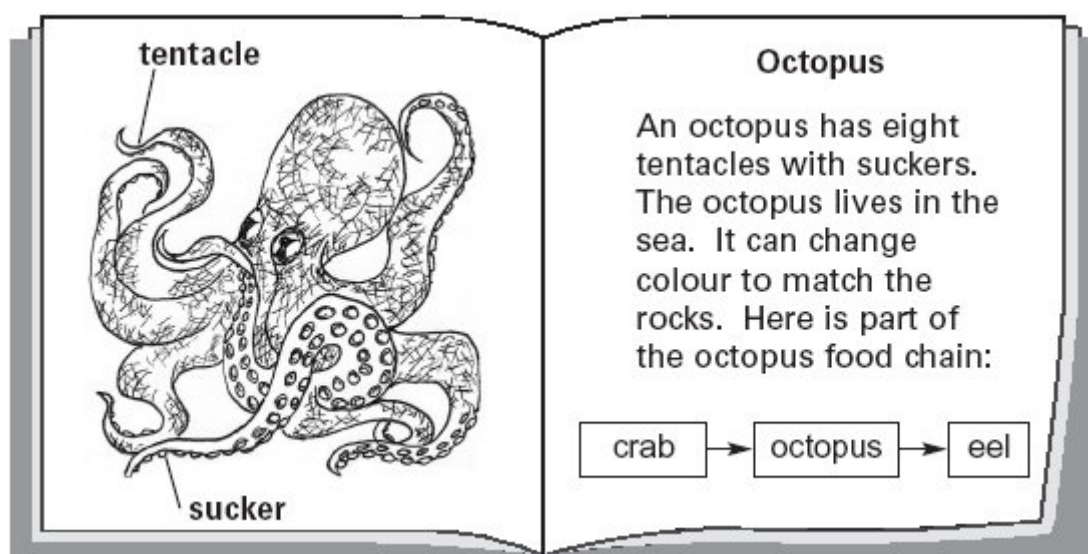
Complete the table below to describe **ONE** feature of a Polar Bear. Say how the feature helps the Polar Bear to live in its environment.

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

1 mark

# **Q10. Animals**

- (a) Some children are reading a book about an octopus.



Some animals have sharp claws to catch hold of their prey.

Which feature of the octopus helps it to catch hold of its prey?  
Use the book to help you.

.....

1 mark

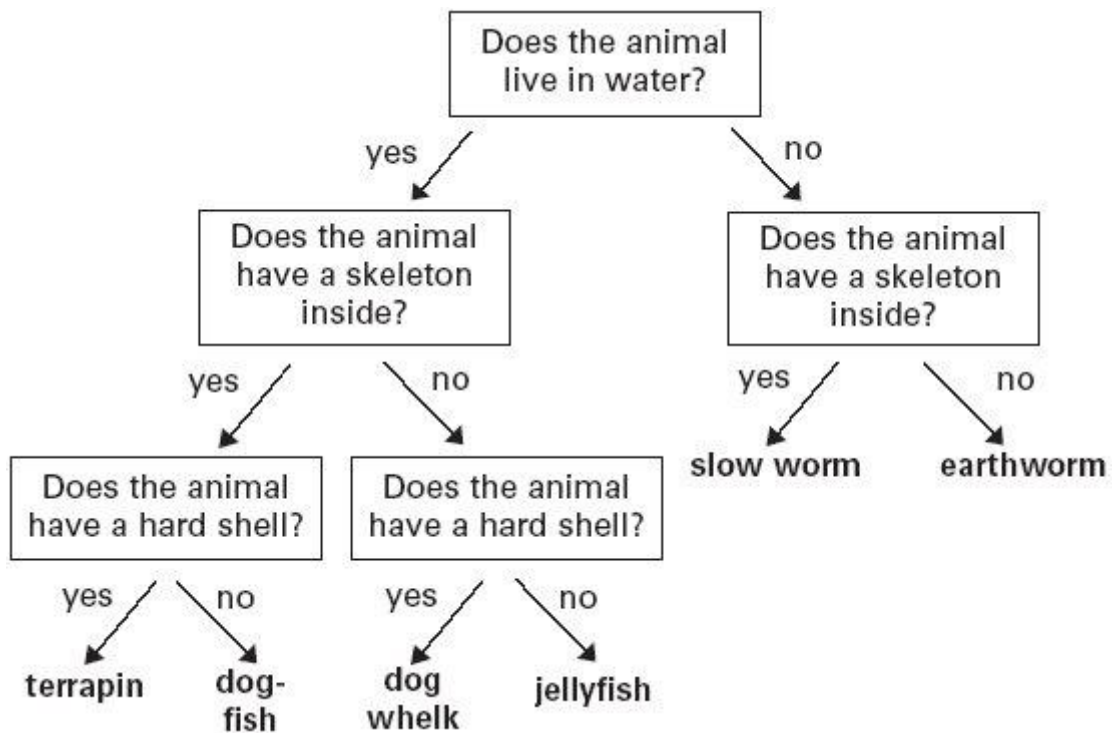
- (b) How does changing colour to match the rocks help the octopus to **protect** itself?

.....

.....

1 mark

- c) The key below can be used to identify some animals.



Use the information in the key to help you circle the animals in the box below that **do not** have a skeleton inside their bodies.

Circle all the correct answers.

terrapiin	dogfish	dog whelk
jellyfish	slow worm	earthworm

2 marks

(d) Use the key to write **three** facts about a terrapin.

1. ....
2. ....
3. ....

2 marks

**Flamingoes** eat brine shrimps. They filter the shrimps from the water.  
Look at the picture of the flamingo.



Describe one feature of the flamingo's neck that helps the flamingo to feed.

.....

1 mark

### EXTENSION:

Design your own creature to live in a certain habitat. What characteristics would your animal have to help it survive in your chosen habitat?