

Extinction Homework Exercise 3



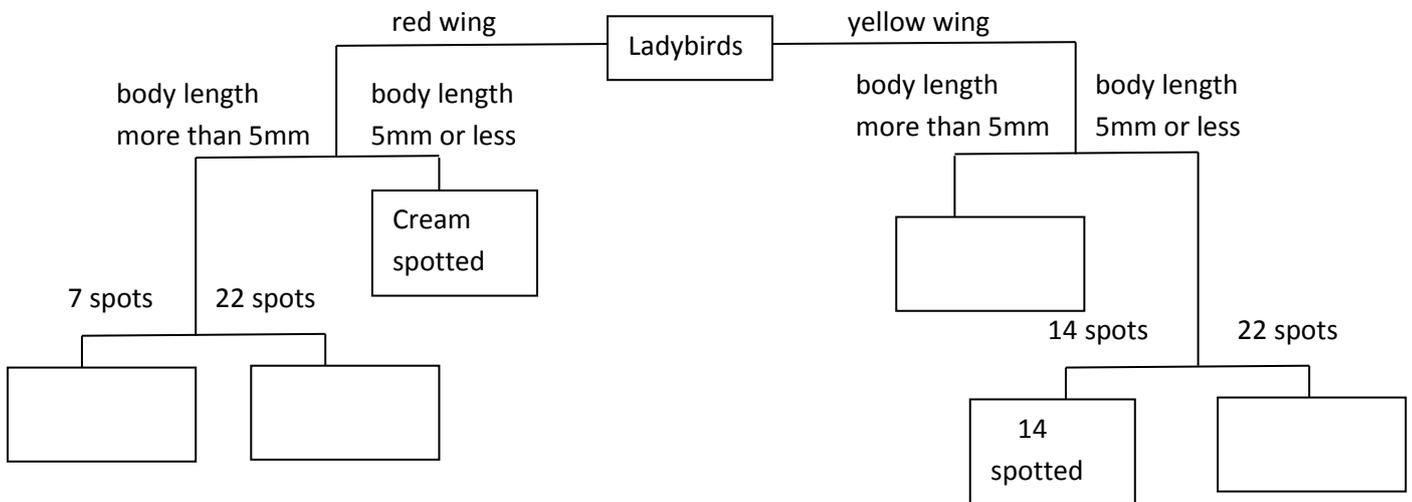
1. Copy and complete:

Within an ecosystem, many different life forms can exist. This range of life forms is known as _____. Life forms in an ecosystem can either be _____ or _____.

2. A branched key can be used to identify living organisms.

Copy out the key below and use the information in the table to complete it.

Ladybird Species	Colour of Wing	Body length (mm)	Number of Spots
Eyed	red	7-8	22
7 spotted	red	6-7	7
Cream streaked	yellow	6-7	7
14 spotted	yellow	4-5	14
Cream spotted	red	4-5	14
22 spotted	yellow	3-4	22



3. Another methods of identifying living organisms is by using a paired statement key. Read over the key below and answer the following questions:

1. Plant is fully submerged in water.....go to 2
 Plant has leaves on or above the surface of water.....go to 3
2. Grows in deep water.....ELODEA
 Grows in shallow water.....STARWORT
3. Plant has roots in soil.....go to 4
 Plant is free floating on water surface.....WATER HYACINTH
4. Long, thin leaves.....WATER HAWTHORN
 Round leaves.....go to 5
5. Resistant to frost.....WATER LILY
 Cannot survive frost.....LOTUS

a) Which plant grows submerged in deep water?

b) Give 3 features that the Water Lily and the Lotus have in common.

c) Identify the plant: This plant has round leaves which float on water. It has roots in the bottom of the pond and does not tolerate frost very well.

Extinction Homework Exercise 4



1. Animals which share common features can be classified into groups.

Copy and complete the table below:

Group	Reproduction Method	Blood Temperature	Body Covering	Breathing Method
<i>Mammals</i>		warm		lungs
<i>Birds</i>	eggs	warm		lungs
<i>Fish</i>	eggs		soft scales	
	eggs		smooth skin	young have gills, adults have lungs
<i>Reptiles</i>		cold	hard scales	

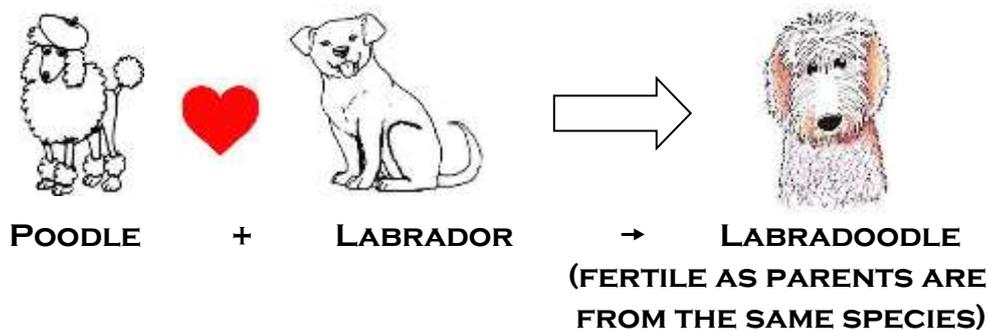
b) The groups of animals above are all **vertebrates**. What does this mean?

2. Each of these groups can be further divided into **species**.

a) Copy and complete the following paragraph:

A group of organisms which can _____ and produce _____ offspring is called a species. When _____ species mating takes place, the offspring are _____ and cannot reproduce.

b) Dogs, despite being different breeds, are from the same species:



Can you think of any cross-species (different species) breeding which takes place in the animal kingdom?

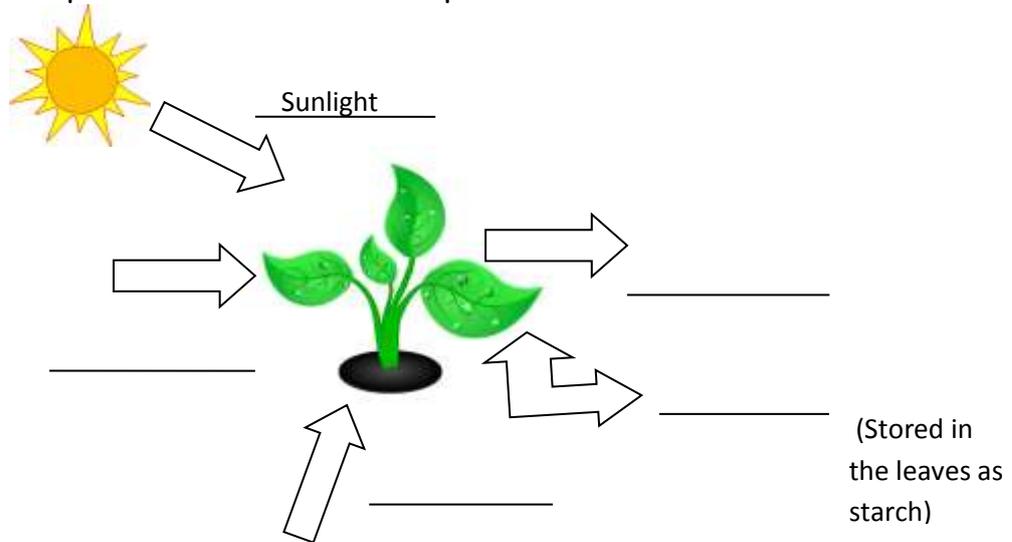
Using the same method of presentation as the example above, draw and name the parents and offspring of an occurrence of cross-species mating.

Extinction Homework Exercise 5



1. a) Photosynthesis is the process by which green plants make **food**.

Copy and complete the diagram below, entering the names of the raw materials and products in the correct spaces:



b) Why does photosynthesis only take place in **green** plants. In your answer, remember to name the substance present and its function.

c) During photosynthesis, plants exchange gases with the air.

Name the **openings** which allow gases to pass in and out of the leaves.

2. We can test a green leaf for starch in the lab. Copy and complete the stages:

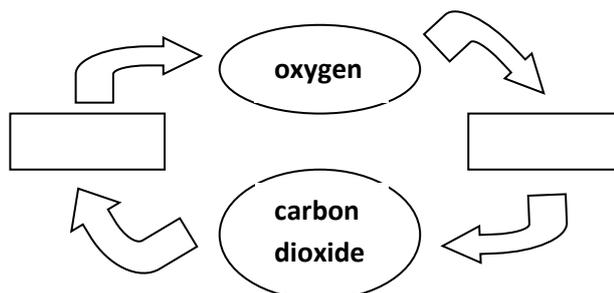
First the leaf needs to be boiled in _____ to burst the cells. We use a _____ to do this. Next, the leaf has to be boiled in _____ to remove all of the _____ (green pigment). In order to do this safely, we must ensure that the flame has been _____! Once the leaf looks white, it can be laid flat and _____ added. If starch is present, it will turn _____/_____ in colour.

3. Photosynthesis allows green **plants** to make food. So why is this important to animals? Remember to give details in your answer.



4. Plants are also important in maintaining gas balance in the atmosphere.

Copy and complete the diagram using the words "*animals*" and "*plants*".



Extinction Homework Exercise 6



1. a) Copy and complete the paragraph below:

There are two different types of factors which can affect where living things are found. _____ factors are other living things such as _____ and _____ factors, which are physical, non-living things such as _____.

b) Name one biotic factor and one abiotic factor of a tropical rainforest.

2. Beetles and woodlice living in the same area are in competition with each other. Competition only occurs when resources are limited.

a) Which resource might they be in competition for?

b) What sampling technique could be used to estimate the number of woodlice and beetles in an area?

c) Plants can also be in competition with each other. Give an example of what they might be in competition for.



3. Earth provides a range of different habitats such as desert, polar regions and woodland. Plants and animals must become **adapted** to living in these habitats.

For each of the plants shown below, match them to the correct physical condition they live in and the correct adaption which helps them to survive.

Plant	Conditions	Adaption
 <div style="border: 1px solid black; padding: 5px; display: inline-block;">Cactus</div>	Lives in low light intensity due to overcrowding.	Catches insects which contain minerals that are missing from the soil.
 <div style="border: 1px solid black; padding: 5px; display: inline-block;">Scots Pine</div>	Serious lack of minerals in the soil.	Grows very tall with branches right at the top to reach the sunlight.
 <div style="border: 1px solid black; padding: 5px; display: inline-block;">Rainforest Tree</div>	High winds and lack of water at times.	Spiney leaves reduce water loss and the swollen stems store water for future use.
 <div style="border: 1px solid black; padding: 5px; display: inline-block;">Venus Fly Trap</div>	Very low moisture levels and very high temperature.	Leaves are rolled to stop water from evaporating. Seeds stored in cones which are scattered in the wind.