

Animals and Habitats

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Name _____

Form _____

Classification: Sorting animals and plants into groups according to their features

The ANIMAL KINGDOM

VERTEBRATES Animals that have a backbone		
Group	Main features	Examples I have found
Mammals	Have hair or fur on their body Babies are born alive and are fed with milk by their mother. Breathe with lungs Warm Blooded	
Birds	Have feathers Lay eggs with hard shells Breathe with lungs Warm Blooded	
Reptiles	Skin covered in scales. Lay soft-shelled eggs on land Breathe with lungs Cold blooded	
Amphibians	Have a smooth skin. The young are born with gills and live underwater but the adults have lungs and often live on land. They lay jelly-covered eggs under water. Cold blooded	
Fish	Have fins and scales Lay eggs in water Breathe with gills Cold blooded	

Warm blooded animals have a steady body temperature (Human body temp = 37°C)
Cold blooded animals have a body temperature that changes with their surroundings

Only Mammals and birds are warm-blooded. Everything else is cold blooded

INVERTEBRATES Animals that have no backbone		
Animal group	Main features	Examples I have found
Insects	3 pairs of legs, 3 parts to their body, hard outside skin	
Arachnids	4 pairs of legs and 2 parts to their body	
Crustaceans	More than 8 legs but less than 20. Often have a very hard, jointed skin	
Molluscs	Have a soft body and a muscular foot. Sometimes they have a hard shell.	
Annelids	Have a long, thin body which is divided into little segments.	

Field study looking for animals and plants

Name of animal or plant	Name of group	Where the animal or plant was found

Animal Kingdom

Mammal Bird Reptile Amphibian Fish

Insect Arachnid Crustacean Myriapod Mollusc Annelid

Plant Kingdom

Flowering plants

Grasses, Trees, All plants that have petals

Non-flowering plants

Mosses, Ferns, Fungi (not strictly a plant)













Fungus Kingdom

Mushrooms, moulds, toad-stools

Animals Quick test

Join the dots to link each group with its description

Group		Description (main features)
Amphibian	•	• Has six legs and three body parts
Insect	•	• Has no legs and a soft body
Reptile	•	• Lives on land and in water
Bird	•	• Has feathers
Mollusc	•	• Has fur. The young are born alive
Arachnid	•	• Has scales but lives on land
Mammal	•	• Has scales and breathes under water
Fish	•	• Has eight legs and two body parts

 Frog	 Butterfly	 Ant
 Fish	 Crocodile	 Wolf spider
 Peregrine Falcon	 Snake	 Bat
 Snail	 Squirrel	 Orca (killer whale)

3. Pick from the animals above
- i an amphibian:
 - ii a reptile.....
 - iii A mammal
 - iv an insect:
 - v An animal with an internal skeleton

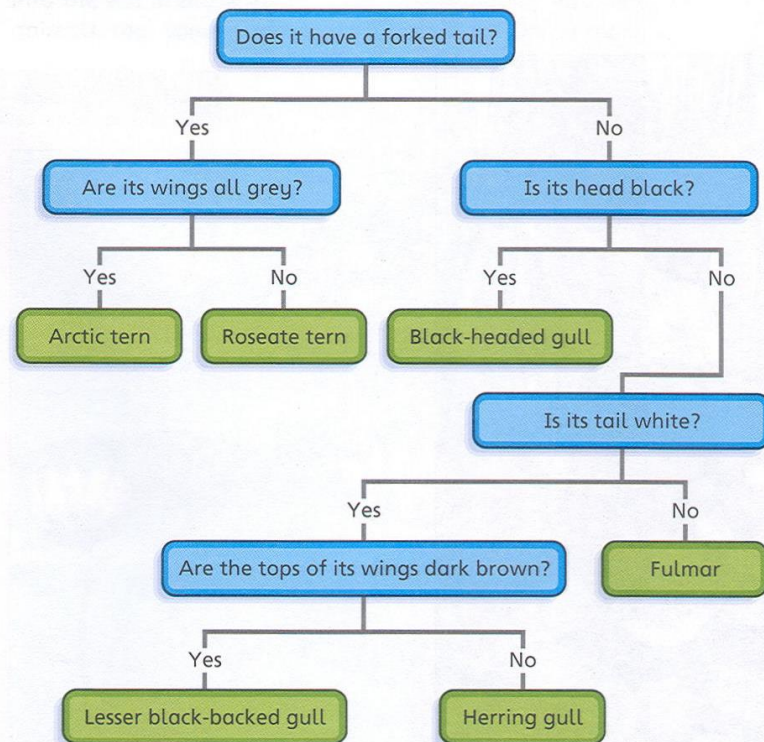
Using a KEY. We use a key to help identify things

There are two main kinds of key.

In the key below you must always start at the top and work down.

Looking at seabirds

This key helps you identify some birds that live near the sea.



The example below shows you how the key can be used.

What is this bird?

You can use the key above to help you to identify this bird.



These are the answers to all the questions for this bird.

Does it have a forked tail? No.

Is its head black? No.

Is its tail white? Yes.

Are the tops of its wings dark brown? No.

Answer: It is a *herring gull*.

Test yourself!

- 1 Why do scientists put living things into groups?
- 2 What is the main difference between animals and plants?
- 3 Use the key on this page to identify these sea birds.



Remember

Scientists put living things into **groups** to make studying them easier.

The two main groups are **animals** and **plants**.

We can use **keys** to help us to **identify** living things.

Bird a) =

Bird c) =

Bird b) =

Bird d) =

In the key below you have a series of questions.
In this kind of key always start at question 1

Identify these creatures using the key below:



spider



butterfly



snail



whelk



worm

Look carefully at the pictures of the animals above, then see if you can identify them using this key:

1) Does it have a shell?

Yes - Go to question 2

No - Go to question 4

2) Does it live in the sea?

Yes - it is a

No - Go to question 3

3) Does it live in your garden?

Yes - it is a

4) Does it have wings?

Yes - it is a

5) Does it have eight legs?




Yes - it is a

No - Go to question 6

6) Does it live underground? Yes - it is a

In the key below you have a series of clues
In this kind of key always start at clue 1

Can you find the name for the first two woodlice?

<p>Woodlouse 1</p>  <p>When threatened this woodlouse rolls up into a tight ball (with no gap). It can be up to 1.5cm (15mm) long.</p>	<p>Woodlouse 2</p>  <p>This woodlouse cannot roll into a ball and is shiny. It is around 1cm (10mm) long but can be slightly bigger</p>	<p>Woodlouse 3</p>  <p>Common striped Woodlouse</p>
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1. Can it roll into a ball?

Yes Go to 2

No Go to 3

2. Rolls up completely leaving no gap Common Pill Woodlouse
When it rolls up there is a gap Armadillium Nasatum

3. Does it have a clear dark stripe down its back?

Yes Common Striped Woodlouse

No Go to 4

4. Is it shiny?

Yes go to 5

No Common Rough woodlouse

5. Is it longer than 5mm?

Yes Common Shiny Woodlouse

No Common Pygmy Woodlouse

Woodlouse 1 =..... Woodlouse 2 =.....





1. Mammal, Bird, Reptile, Amphibian, Fish, Insect, Arachnid

Which animal group is being described in each sentence below

- a. An animal with scales and lives on land
- b. An animal with 8 legs
- c. An animal that has scales and lives under water
- d. An animal with feathers

2. If an animal is called a vertebrate what does it need to have?
- Give one example of a vertebrate:.....

3.

Name of animal		Description
Weevil		About 5mm long. It is a herbivore and is often found in grain or flour. It has a hard outside skin and six legs
Salamander		Has a smooth skin and lives under water
Alligator		Has scales and lays soft eggs on land
Flying Gurnard		Lives in water and has a body covered in colourful scales

Read the description for each animal and then write the name next to its correct animal group.

Mammal: Fish:

Bird: Insect:

Reptile: Amphibian:

4.



Write down a piece of evidence in the photograph that tell you that a dog is a mammal.

.....

5.



A bat has a body covered with fur. It is warm blooded and can fly.
Its babies are born alive.

Is a bat a bird or a mammal ?.....

Describe two features of a bat that helps tell you whether it is a bird or a mammal

.....

.....



An ant has a hard outside skin and 6 legs. Its body is divided into three parts

6. Is an ant an insect or an arachnid?

Describe two features of an ant that helps tell you whether it is an insect or arachnid

i
.....

ii
.....

Habitats

A habitat is the type of place an animal or plant makes its home

Examples of different habitats: Stream, ocean, desert, oak tree

A habitat needs to provide the following:

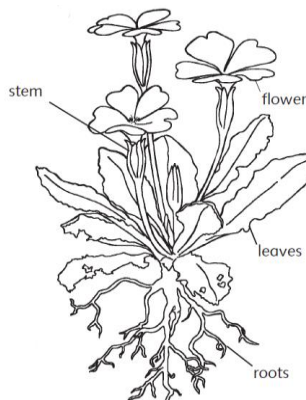
Food, protection from predators, shelter and a place to raise a family

Plants help animals by providing them with food, shelter, building materials, a place to hide and air to breath.

Animals help plants by pollinating them, distributing their seeds and fertilizing the soil

Food Chains

The green parts of plant use the Sun's energy to make food



Shade in the green parts of this plant

Which parts of the plant are green?

Flower ☐

Stem ☐

Leaves ☐

Roots ☐

All animals eat things to get energy

What food is the sloth eating to get its energy?



A plant ☐

Soil ☐

An animal ☐

Animals that eat only plants are called herbivores.

What food is the tiger eating to get its energy?



A plant ☐

Soil ☐

An animal ☐

Animals that eat only meat are called carnivores.

A food chain is a list of organisms to show what is eating what in a habitat

eg **CABBAGE LEAF** → **SLUG** → **THRUSH** → **FOX**

This means that the cabbage is eaten by the slug
which is eaten by the thrush.
.. which is eaten by the fox

The CABBAGE is a (plant, herbivore or carnivore?)
The SLUG is a (plant, herbivore or carnivore?)
The THRUSH is a (plant, herbivore or carnivore?)
The FOX is a (plant, herbivore or carnivore?)

- The first organism in a food chain is called a PRODUCER and is **always** a PLANT
- All other organisms in the food chain are CONSUMERS

PLANTS ARE PRODUCERS **ANIMALS ARE CONSUMERS**

PRODUCER → PRIMARY CONSUMER → SECONDARY CONSUMER

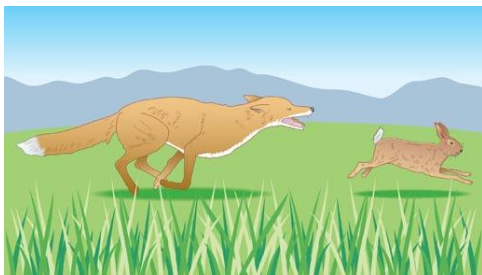
Predators and Prey

The animal at the top of the food chain is often a PREDATOR and is called a top carnivore

Animals that hunt for their food are PREDATORS
Animals that are being hunted are the PREY

example:

When a fox eats a rabbit, the **fox is a predator** and the **rabbit is the prey**



Sometimes an animal can be predator and prey at the same time

SLUG → **THRUSH** → **FOX**

The thrush is the predator of the slug AND prey to the fox

Assessment test: Habitats

1. The place an animal makes its home is called its

(habitat, environment, Community)

2. An animal which eats mostly **meat** is called a

(Herbivore, Carnivore, Producer)

2. An animal which eats mostly **plants** is called a

(Herbivore, Carnivore, Producer)

3. The first organism in a food chain is always a

(Plant, Animal, Worm)

4. Look at the food chain below and then answer the questions which follow

CABBAGE → SLUG → THRUSH → FOX

a) From the food chain above pick out a **herbivore**

b) From the food chain pick above out a **carnivore**

c) From the food chain above pick out a **producer**

d) Where does the thrush get its energy from?

e) where does the Cabbage get its energy from?

f) What is the prey of the thrush?

5. Look at the animals below and link each animal to its correct habitat with a line

Shark

Desert

Lion

Cold salt water (marine)

Scorpion

Meadow

Duck

Grasslands

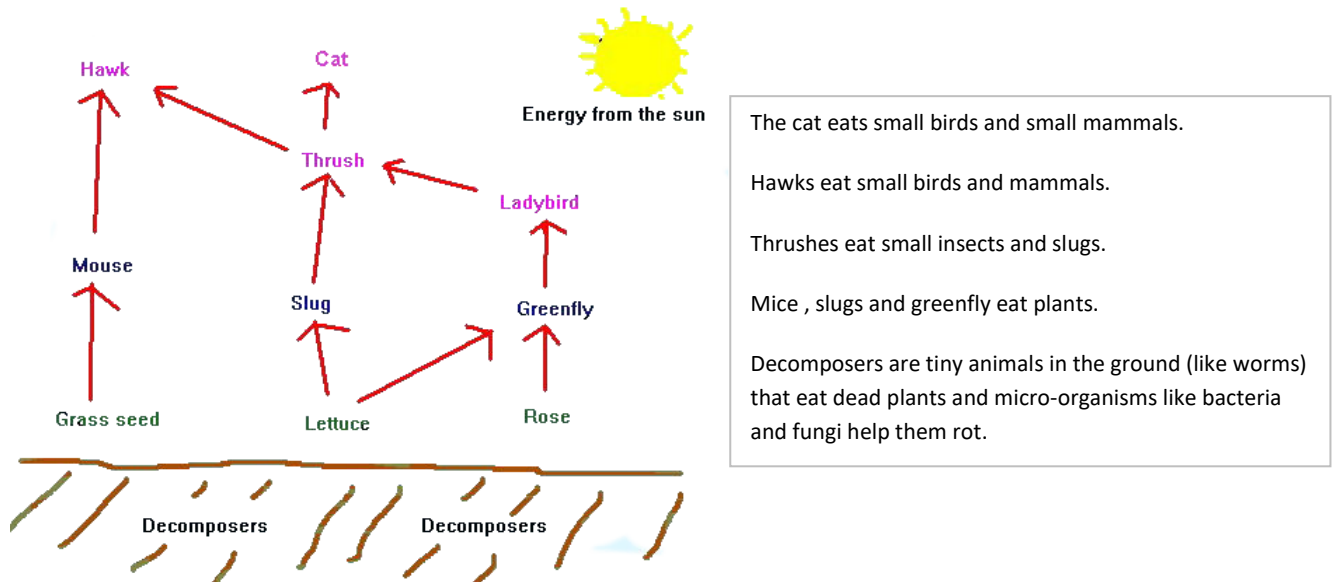
Fox

Fresh-water pond

Extension questions

6. A gardener wrote down some of the living things he found in his garden

He put them into a diagram which shows several food chains linked together.
(A diagram like this is called a **food web**).



a) Discover and write down one **food chain** from the food web

.....

b) Pick out a herbivore from the food web :.....

c) Name TWO predators of the thrush i. ii

d) What might be the effect on the number of thrushes if a second cat moved in ?

.....

e) The gardener sprayed his roses with a chemical to kill the greenfly

How do you think this might affect the number of ladybirds in his garden?

.....

After spraying his roses the gardener noticed that he had fewer slugs in his garden.
Why do you think this might have happened?

.....

Why do you think the sun is very important to all the animals living in his garden?

.....

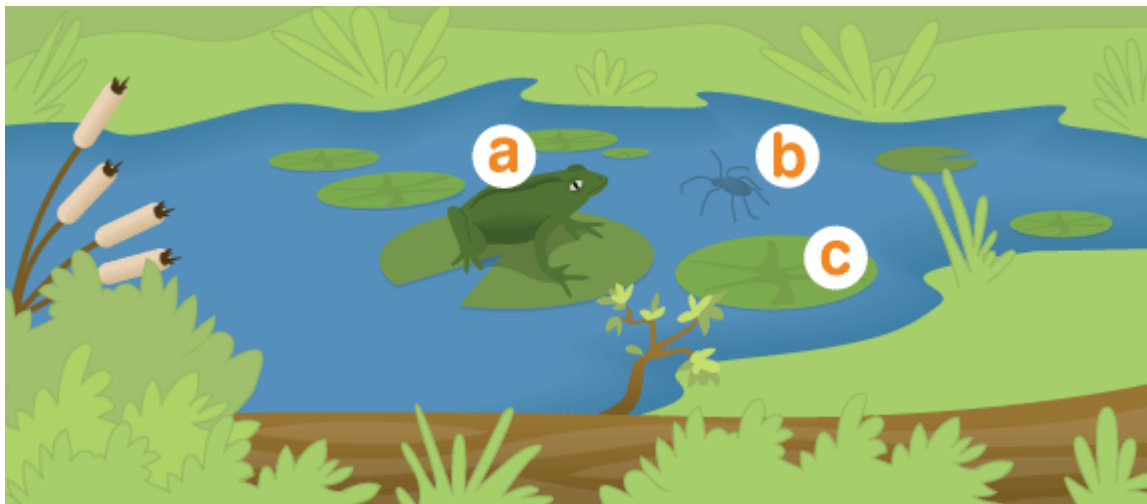
How plants and animals adapt

Animals and plants are **adapted** to their habitats. This means that they have special features that help them to survive.

An African **elephant**, for example, lives in a hot habitat and has very large ears that it flaps to keep cool. A **polar bear**, on the other hand, lives in a cold habitat and has thick fur to keep warm.

Pond habitat

Here are some plants and animals that have adapted to living in a pond habitat.



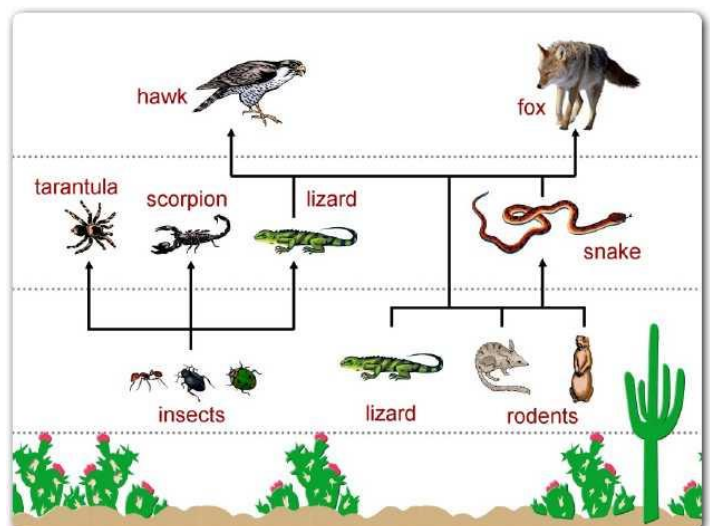
- **a.** Frog - The frog has webbed feet to help it swim quickly.
- **b.** Water spider - Hair-like bristles cover the abdomen, which trap air and allows the spider to breathe underwater.
- **c.** Lily pad - The lily pad has a jelly-like substance on the bottom of its leaves to make it hard for insects to grab on to it

Tasks

A desert habitat

1. Make a list of animals and plants that might live in the desert
2. Write down one food chain from these animals
3. Draw a picture of one of these and explain how it has adapted for life in the desert.

The diagram on the right might help but you don't have to use it.



Micro-organisms

A micro-organism (or microbe) is an organism that is so small a microscope is needed to see it.

They are usually made from a single cell.

There are three main types of microbe: **Bacteria**, **fungi** and **viruses** although some microscopic single celled animals like the '**amoeba**' are sometimes referred to as microbes.

Helpful microbes

1. Bacteria which help make vinegar, cheese and yoghurt
2. Bacteria and fungi rot help dead organisms and so put nutrients back into the soil for plants to grow. There are many helpful bacteria in the soil.
3. Yeast is a kind of fungus. It is used to make bread and beer.
The yeast turns the sugar into alcohol and carbon dioxide

Harmful microbes

1. Bacteria and viruses can cause disease and illness like flu, cholera, tetanus and chicken pox
2. Bacteria cause tooth decay

Diseases can be spread several ways:

- Coughs and sneezes
- Touching infected people
- Insect and other animal bites
- Eating infected food

Fighting disease

In the kitchen

- Keep food covered
- Store food in a refrigerator
- Heat food properly when cooking it
- Store raw meat away from cooked meat
- Wash your hands after touching raw meat

At home

- Wash your hands after going to the toilet
- Don't cough or sneeze over people

At the doctors

- Vaccinations and antibiotics (like penicillin) are both medicines that help fight microbes

Micro-organisms test

Name.....

1. Name three groups of micro-organism

i.....

ii.....

iii.....

Chose from these words: Fungi, sand, bacteria, antibiotics, kitchen cleaner, viruses, mud, saliva

2. Describe one way that bacteria can be helpful in preparing types of food:

.....

3. Describe one way that bacteria are helpful in the garden

.....

4. What sort of organism is yeast: bacteria, fungus or a virus?

5. Describe how one way that yeast is used in cooking or preparing food

.....

6. Name two illnesses that are caused by micro-organisms:

i.....

ii.....

7. It is very easy to catch diseases from other people.
Describe two things you can do to stop a disease or illness being spread at home or school.

i.....

ii.....

8. Why is it important to cook chicken until it is not pink in the middle?

.....

9. Describe two important rules when storing raw chicken to eat later in the week.

i.....

ii.....

10. Mention two sensible rules to follow when preparing raw chicken in the kitchen to try and stop food poisoning

i.....

ii.....

11. Medicines are now used to help stop the spread of disease.
Name two groups of medicine used by doctors:

i..... help you stop catching an illness (for example when you go abroad)

ii..... are medicines that are given to you when you are already ill to try and fight the bacteria in your body.

Chose from these words: Vaccinations Antibiotics

Bread Recipe

Ingredients

- 650g Strong White Bread flour
- 10g (2 tsp) Salt
- 5g (1 tsp) Sugar
- 15g Soft butter
- 7g (1 sachet) Dried Yeast
- 400ml Warm Water

Ingredients

1. Mix dry ingredients
2. Rub in butter
3. Add warm water and mix to form a soft dough
4. Knead on a floured surface for about 10 minutes until dough is soft and elastic
5. Shape as desired and place on warm greased baking tray or into loaf tin
6. Pre-heat oven to 230°C / gas mark 8
7. Cover dough with cling film or damp tea-towel and leave in a warm place for about 45 minutes or until dough has doubled in size
8. Place in centre of pre-heated oven and bake for about 30 minutes (15 minutes for rolls). When ready bread should sound hollow when tapped on the bottom
9. Remove from oven and cool on a wire tray
10. Eat with butter and jam!