Name & Surname: _____ Class: _____ Date: _____

Living Things Sorted!

How scientists group plants, animals and micro-organisms



About 35 minutes Level ★★★☆☆

Why do we classify?

Scientists **classify** living things to make sense of millions of species. They sort by **observable characteristics** and similarities and differences.

- Animals, plants, fungi and **micro-organisms** are the main broad groups.
- Animals with a **backbone** are vertebrates: fish, amphibians, reptiles, birds and mammals.
- Animals without a backbone are **invertebrates**, like insects, spiders, worms and snails.
- Plants split into **flowering** plants and non-flowering plants like ferns and mosses.
- Micro-organisms are very **tiny** and need a microscope to see, like bacteria and yeast.
- Carl Linnaeus made a naming and grouping system called **taxonomy** that we still use.



Task A

Pick a card. Describe the word to your partner without saying any banned words. Your partner guesses the group.

Cut out the cards.



mammal

Don't say:

milk
fur
lungs
warm-blooded



vertebrate

Don't say:

backbone
spine
skeleton
inside



fungus

Don't say:

mushroom
toadstool
mould
chlorophyll



micro-organism

Don't say:

microscope
tiny
bacteria
yeast

Created with LessonDino.com · AI lesson planner with checkable sources

Meet The Groups

Remember the five vertebrate groups and more.

Key words

classification: sorting living things into groups

invertebrate: an animal without a backbone

micro-organism: very tiny living thing seen with a microscope

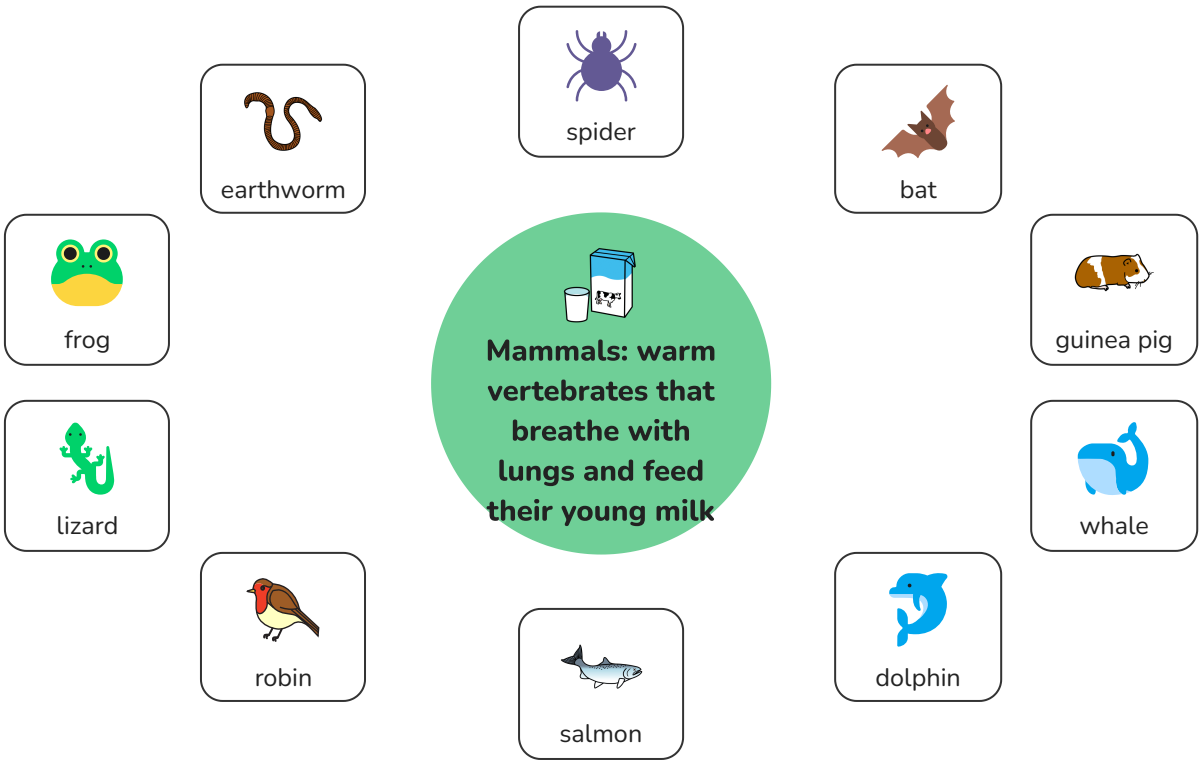
vertebrate: an animal with a backbone

fungus: living thing that absorbs food, like a mushroom

characteristic: a feature we can observe

Task B /4

Look at the pictures round the centre circle. Draw a line to the ones that belong in this group.



Created with LessonDino.com · AI lesson planner with checkable sources

Fix The Mistakes

Spot what is wrong and correct it.

Task C

/3

Student A, Student B and Student C each say something wrong. Spot the mistake and write the correct fact.



Student A

A whale is a **fish** because it lives in the sea and has fins.

What mistake did Student A make? Write the correct fact.



Student B

A toadstool is a **plant** because it grows in soil and does not move.

What mistake did Student B make? Write the correct fact.



Student C

Bacteria are not living things because they are too **small** to see.

What mistake did Student C make? Write the correct fact.

Created with LessonDino.com · AI lesson planner with checkable sources

How Should We Sort?

Think about sorting only by habitat.

Task D

A class wants to sort animals only by **habitat**: land, sea or air. Think about this **idea** from four points.

N **Need to know: what else do I need to find out?**

W **Worried: what worries me?**

Only classify animals by where they live: land, sea or air.

E **Excited: what is good about it?**

S **Stance or suggestion: what do I think now?**

Try A Key

Use a key to sort animals like a scientist.

Task E

/2

Use a yes or no key to sort six small garden animals into the right group.

Aim To test if observable features can place animals in the correct group.

You will need

- ☐ hand lens
- ☐ pencil
- ☐ tray to observe animals in

⚠ Stay safe

- wash hands after touching soil or animals
- stay with your teacher outside
- put animals back gently

Method

1. Look closely at each animal with a hand lens.
2. Ask first: does it have a backbone? Put vertebrates one side.
3. For invertebrates ask: how many legs? Note 6, 8 or none.
4. For vertebrates ask: does it have fur, feathers or scales?
5. Write each animal in the results table below.

Animal name	Backbone? yes or no	Legs or body cover	My group

1. Which **feature** best splits vertebrates from invertebrates?

.....

.....

2. Why is a spider not an **insect**, even with many legs?

.....

.....

How did I do?

Circle a face for each line.

I can give reasons for sorting plants and animals by features. ☹ 😐 ☺

I can place living things into broad groups including micro-organisms. ☹ 😐 ☺

I can use a yes or no key to identify a living thing. ☹ 😐 ☺

Created with LessonDino.com · AI lesson planner with checkable sources

Answer sheet: Living Things Sorted!

Task A

A speaking game: no written answers.

Task B

Belongs: bat, guinea pig, whale, dolphin
Does not belong: spider, salmon, robin, lizard, frog, earthworm

Task C

1. Student A: Wrong group. A whale breathes with lungs and feeds its young milk, so it is a mammal.
2. Student B: Wrong kingdom. It has no chlorophyll and cannot make food, so it is a fungus.
3. Student C: Wrong idea. Bacteria are tiny living micro-organisms seen with a microscope.

Task D

Answers will vary, e.g. E: I am excited we could sort quickly by habitat outside. N: I need to know where a frog goes, as it lives in water and on land. S: I think we should also use body features, like lungs or gills. W: I am worried a whale and shark would group together, but a whale is a mammal.

Task E

1. Having a backbone. Vertebrates have one, invertebrates do not.
2. Insects have six legs. Spiders have eight legs.

Pictures: Pictograms: Sergio Palao, ARASAAC (arasaac.org) · CC BY-NC-SA; Illustration: JFJunior · Pixabay; Microsoft Fluent Emoji (MIT); Mulberry Symbols by Steve Lee (mulberrysymbols.org) · CC BY-SA 4.0; Characters: Open Peeps by Pablo Stanley (CC0)

Created with LessonDino.com · AI lesson planner with checkable sources