

Living things in their habitats

Lesson 1:

I can give reasons for
classifying animals based
on specific characteristics.



What is Classification?

How many different species of living things are there on Earth?



Scientists believe that there could be as many as 10 million different species on Earth! It would be very hard to study the lives and behaviours of all these living things without grouping them together somehow.

Scientists sort and group living things according to their similarities and differences. This is called classification. Scientists who classify living things are called taxonomists.

Sorting and Grouping

Taxonomists classify living things by comparing them. Let's look at an example of how this works.

Look at the food items on this table. How could we group them? Taxonomists would start by splitting them into two large groups. Can you think of two groups to use to split up the food? Record your answer:

There are several ways you could split the items into two groups. Record your answer:



Sorting and Grouping

We could split them into 'healthy food' and 'unhealthy food'.

Now each group could be split further into another two groups. Look at the healthy food. How could you split them into two smaller groups?



Sorting and Grouping

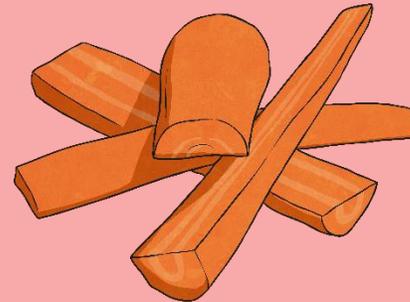
Again, there are several ways you could split these snacks into two groups. They could be grouped into 'Fruits' and 'Vegetables'.



Sorting and Grouping

Now, the 'Vegetables' group can be split up into two smaller groups.

They could be split into 'Roots' and 'Florets', or even 'Carrots' and 'Broccoli'.



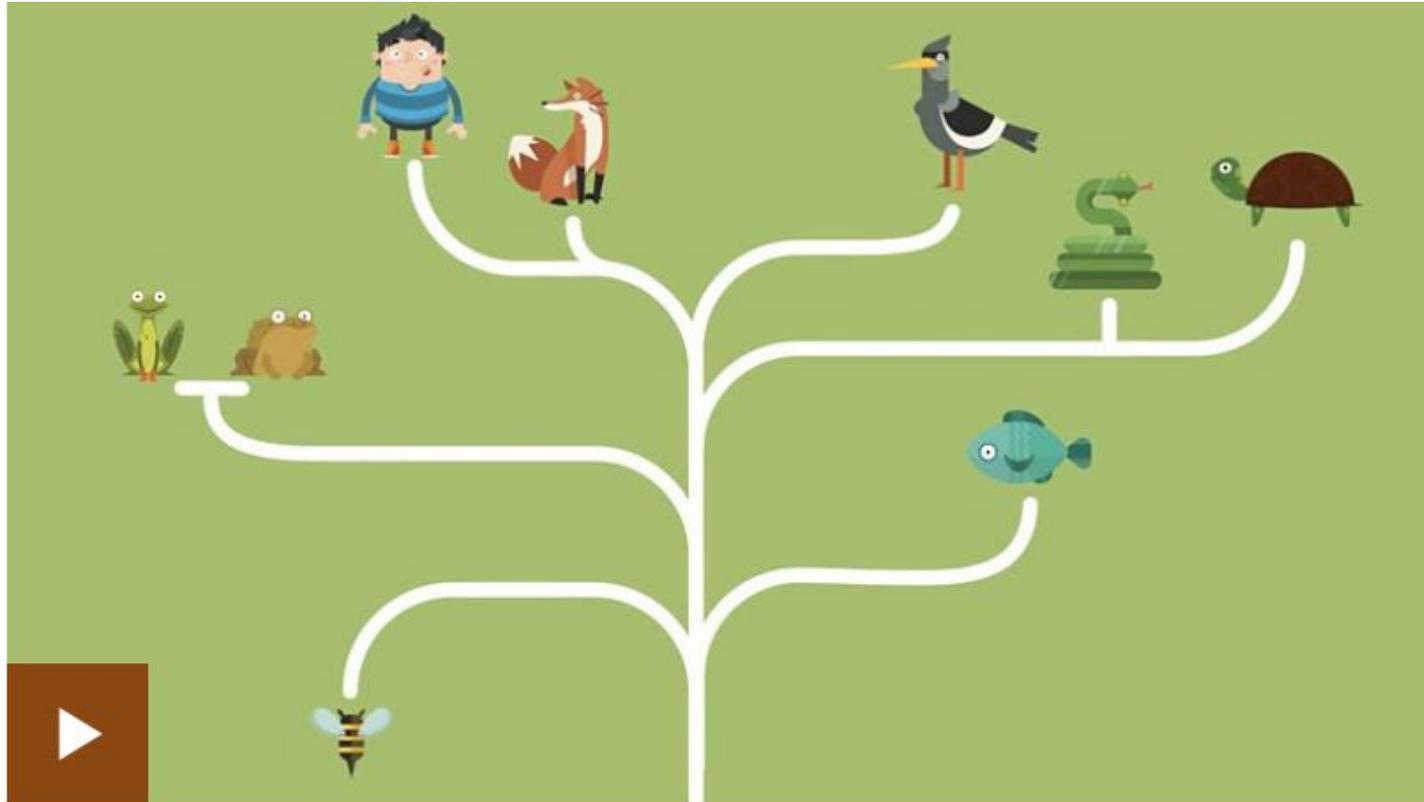
Sorting and Grouping

This is how taxonomists classify living things. They group similar things together, then split the groups again and again so they become smaller and smaller.

Each group allows scientists to observe and understand their similarities and differences more clearly.



<https://www.bbc.co.uk/bitesize/topics/zn22pv4/articles/z3nbcwx>



Classification Conundrum

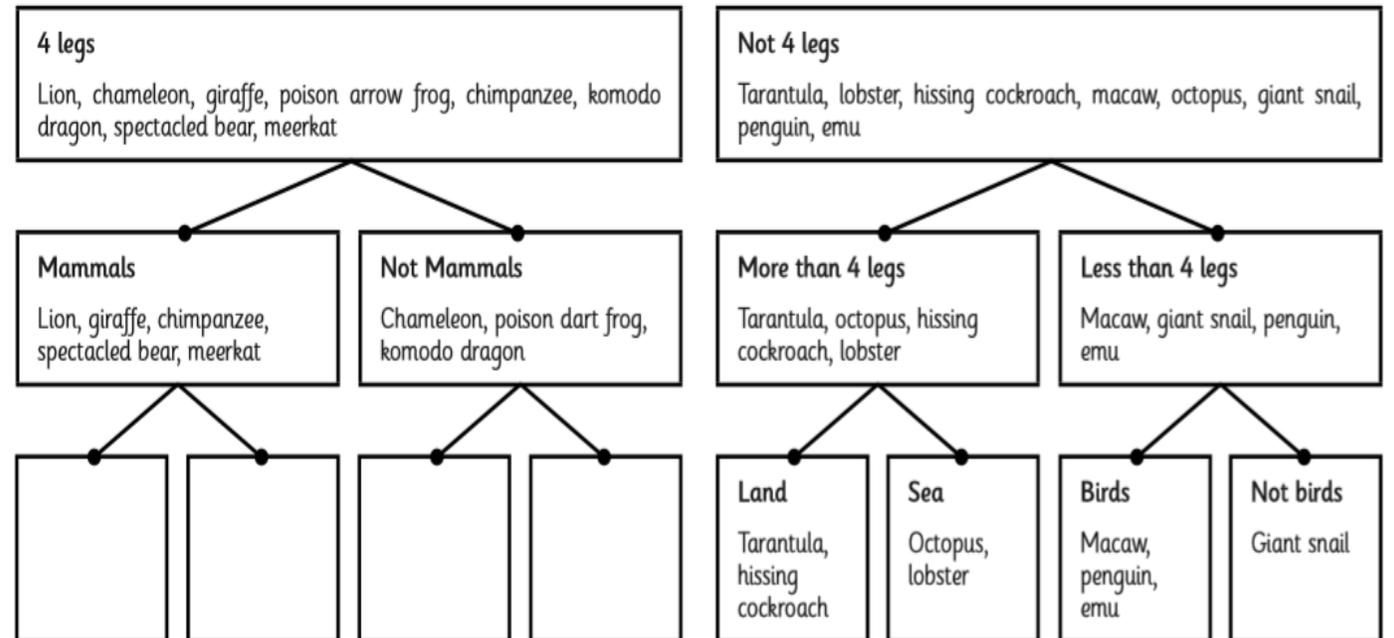
Imagine that a new zoo is going to open in your local area. You have been asked to sort and group the animals that will live in the zoo, so that similar species can be housed in enclosures near one another.

You will act as a taxonomist, so it is up to you to decide how to classify the animals and give reasons for your classification.

What you will do is sort and classify the animals. Here is an example way to sort and classify:

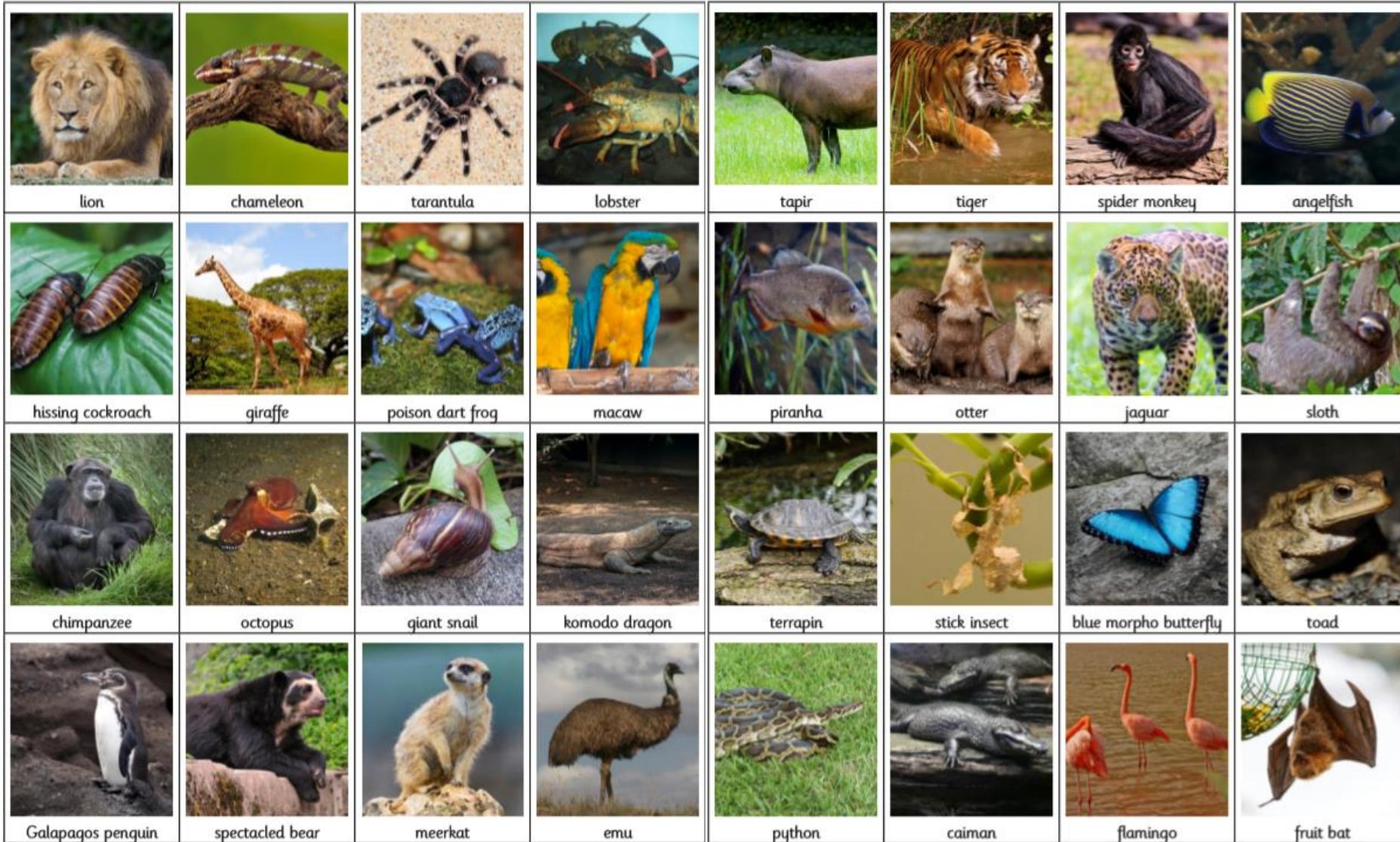
Branching database example: Zoo Classification Example

There are different ways to sort and group the animals. This is one example of how to get started. You may use it to help you classify the animals for your zoo.



Classification Conundrum

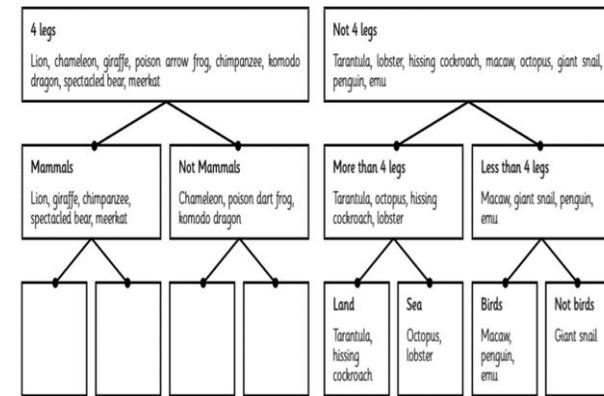
Use the images of zoo animals to create a classification table like in the example.



Branching database example:

Zoo Classification Example

There are different ways to sort and group the animals. This is one example of how to get started. You may use it to help you classify the animals for your zoo.



Classification Conundrum

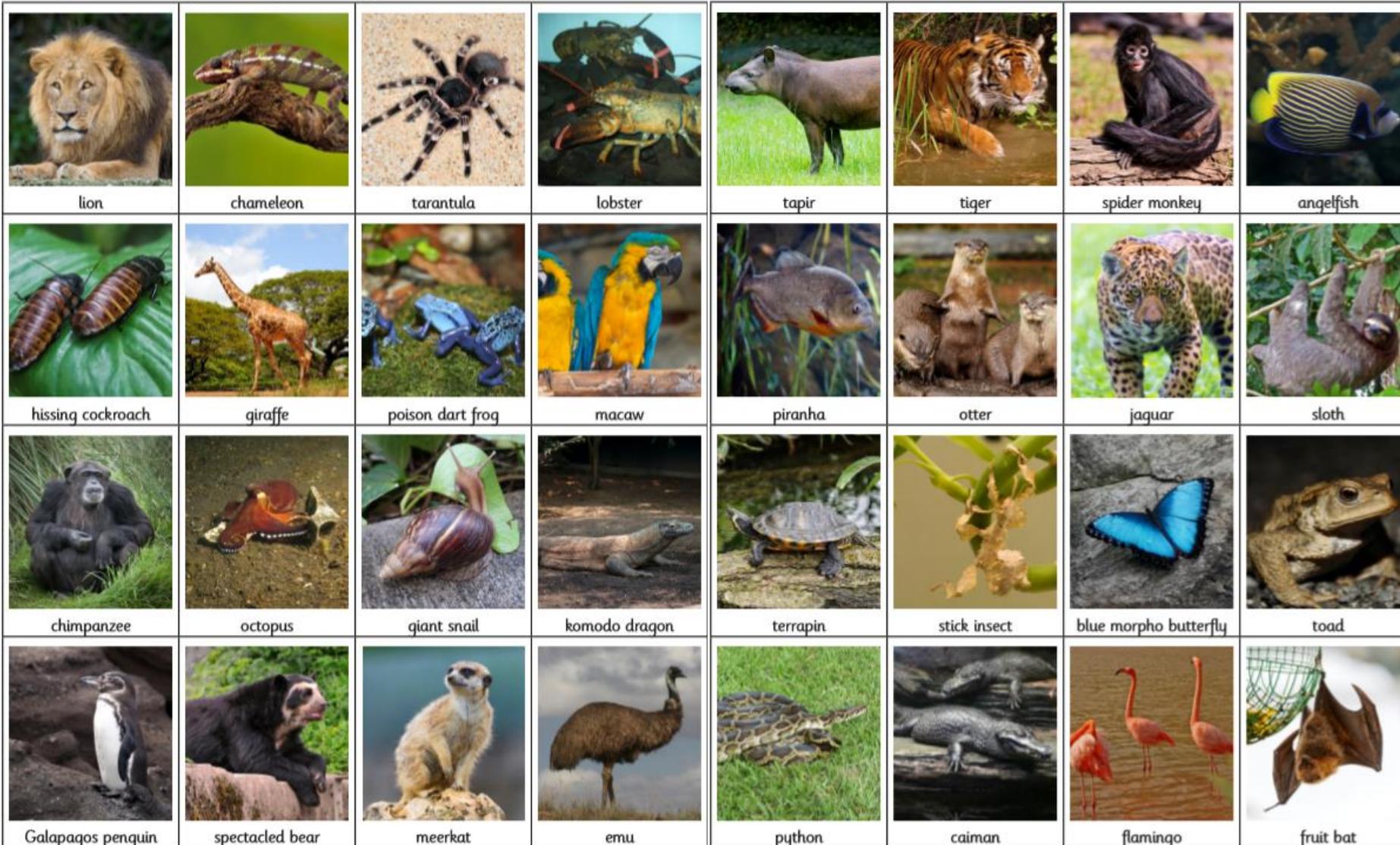
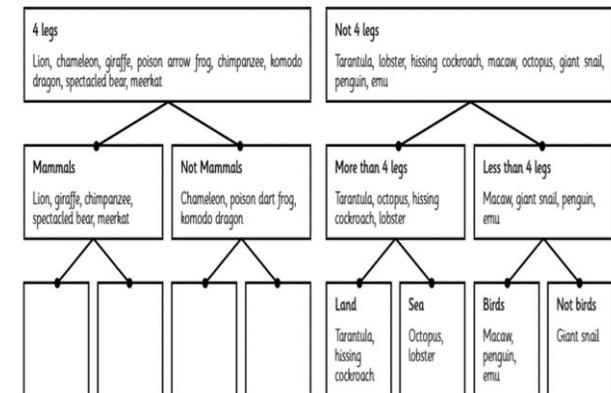
How many different ways can you sort and classify?

Create a branching database (like the example) for all the different ways you can sort.

Branching database example:

Zoo Classification Example

There are different ways to sort and group the animals. This is one example of how to get started. You may use it to help you classify the animals for your zoo.



Explain your thought process:

- Now that you have sorted in several different ways you now need to explain how and why you have decided to sort them the way that you did.
- Assess yourself: Give yourself a tick once you have completed each aspect

Living Things and Their Habitats | Classifying Conundrums

I can give reasons for classifying animals based on their similarities and differences.	
I can sort and group animals based on their features.	
I can give reasons for the way I have classified animals.	

Design it:

- Now that you have sorted and classified and you have given reason for your classification, now is the time to design your zoo.
- Design a zoo layout. Think about other aspects of these living things.
- Would it be wise to put the lions near the meerkats? Why or why not? Think about the workers who need to feed and care for these animals.
- Provide a guide to go with your map which explains where the animals are and why they are there.

Example of a zoo outline.

