

# Classifying Conundrums



# 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 snacks 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 snacks?

There are several ways you could split these snacks into two groups. Share your ideas with the class.



# Sorting and Grouping



Let's say you split them into 'Healthy' snacks and 'Unhealthy' snacks.

Now each group can be split into another two groups. Look at the 'Healthy' snacks. 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.



# Classification Conundrum



You are going to be given a set of pictures of living things from the Arctic and Antarctic. You are going to decide how to group these living things. 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.

At this stage you can not do any extra research. You could make a list of things you might want to know about each living thing that might make grouping them easier.



# A Single Method?



Do you think taxonomists use different classification methods like you may have done? Is it important to use the same method of classification?

In your next lesson, you will find out about the standard method of classifying living things.



