Summer Week 1 - Science lesson 1

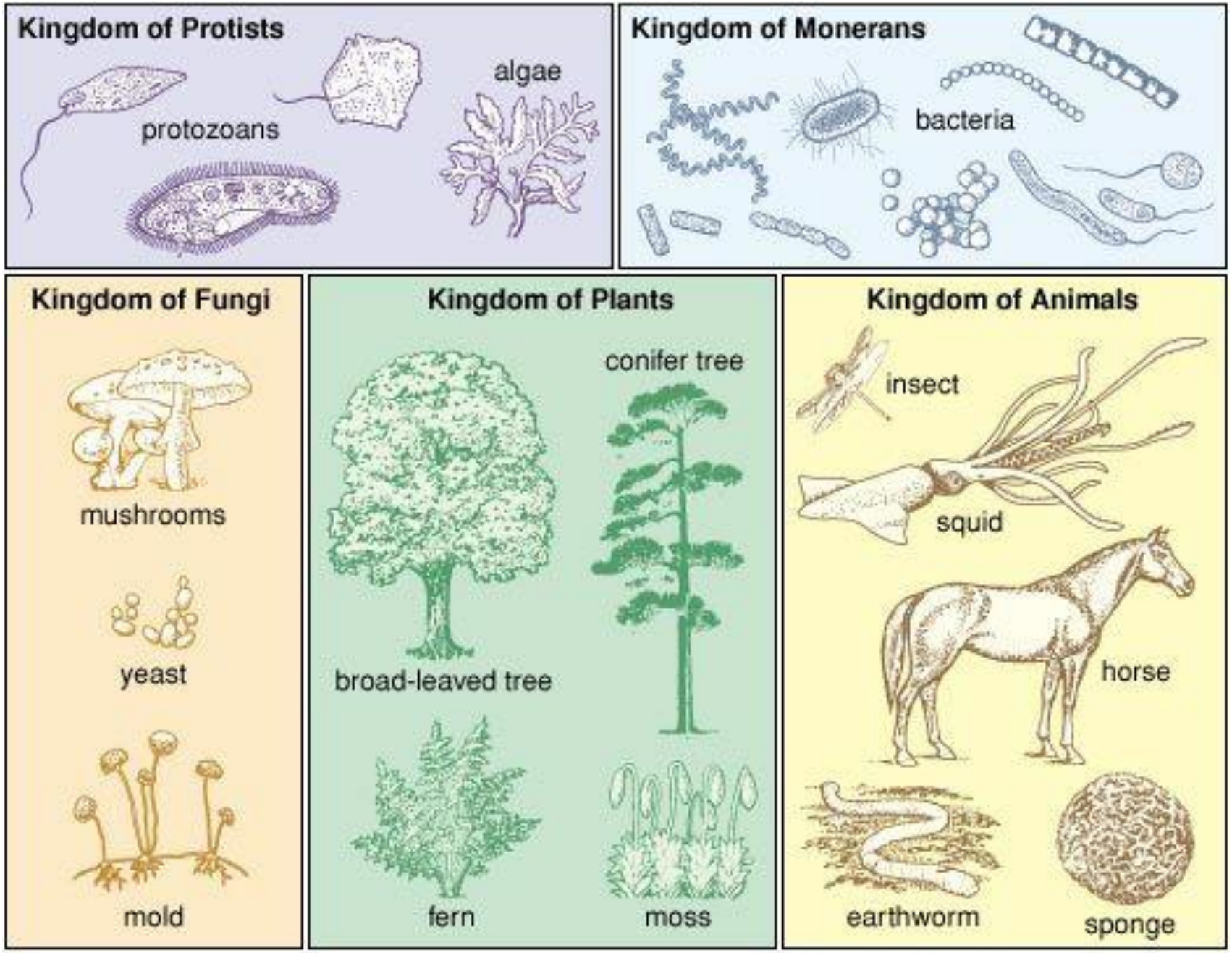
Can I understand that living things are grouped in different ways?

To start with, all living things are divided into large groups called 'kingdoms’.

Scientists haven't quite agreed how many kingdoms there are, but many think that there are five:

- monera
- protoctista
- plants
- fungi
- animals

You probably know about the plants, animals and fungi (like mushrooms and yeast), but the monera and the protoctista may be new to you.



Classification is all about organising living things into groups. The members of any group all have a shared characteristic - it is this feature that defines the group.

For example, plants contain a chemical called chlorophyll that they use to make their own food (it also makes them green). Every member of the plant kingdom shares this characteristic. By comparing the features of different living things they have been able to classify them further, dividing each of the kingdoms into smaller groups.

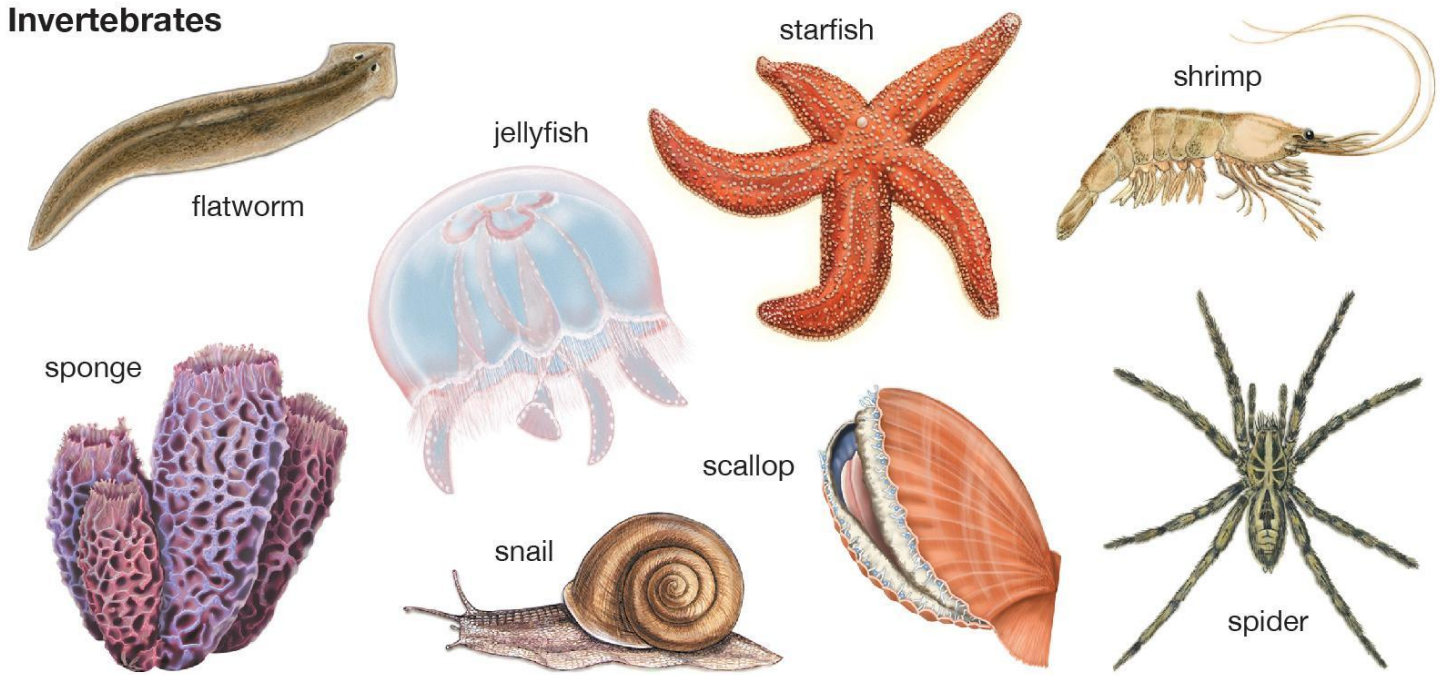
Taking the animal kingdom as an example, we can see that it is split into two clear groups:

Invertebrates - animals without a backbone.
Vertebrates - animals with a backbone.

The animals have been divided into two groups based on whether they have a backbone or not.

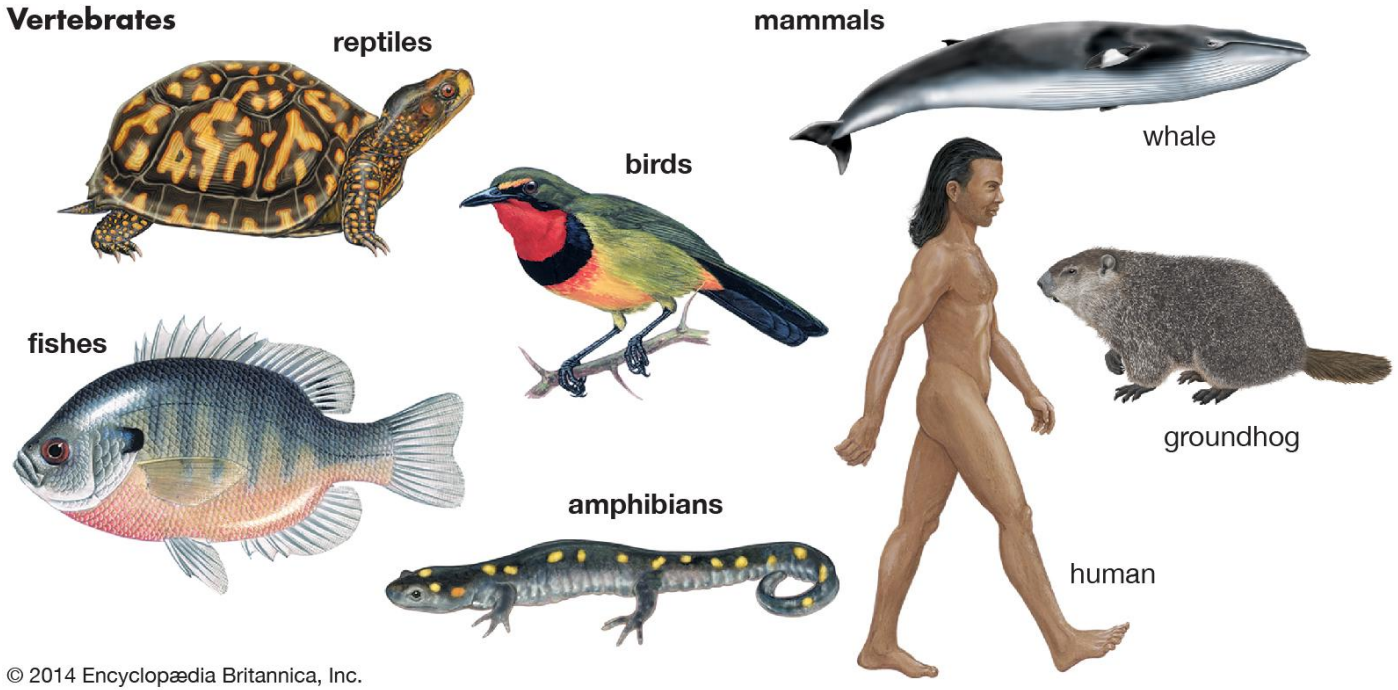
These two groups are then divided into smaller 'sub-groups’.

Sponges, corals, worms, insects, spiders and crabs are all sub-groups of the invertebrate group - they do not have a backbone.

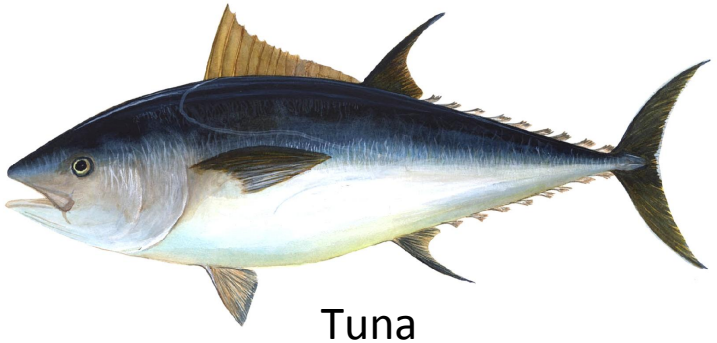


These two groups are then divided into smaller 'sub-groups’.

Fish, reptiles, amphibians, birds and mammals are different sub-groups of vertebrates - they all have internal skeletons and backbones.



We are going to look at the Vertebrates in closer details and how the sub-groups differ from each other.



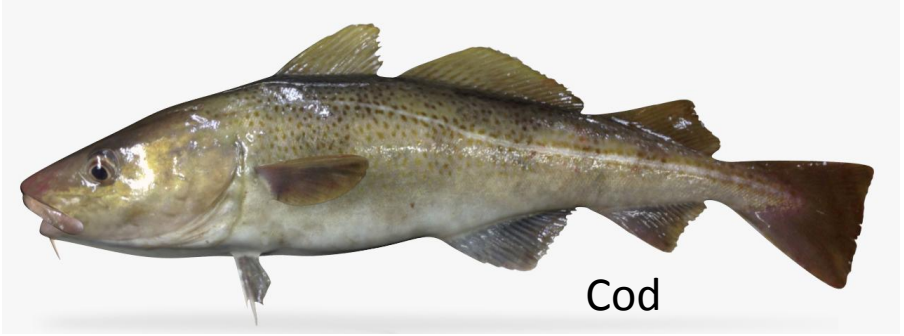
Tuna

Fish

Blue Tang

Goldfish

- Are cold blooded
- Live in water
- Have fins to move
- Have gills to breathe underwater
- Have skeletons on the inside of their bodies
- Lay eggs (in water)



Cod

Tortoise

Reptiles

Lizard

- Are cold blooded
- Live on land and in water
- Have scales, ear holes and dry skin
- Have skeletons on the inside of their bodies
- Lay eggs

Turtle

Snake

Newt

Amphibians

Toad

- Are cold blooded
- Live on land and in water
- Have moist skin no scales, and webbed feet
- Have skeletons on the inside of their bodies
- Lay eggs

Salamander

Frog

Magpie

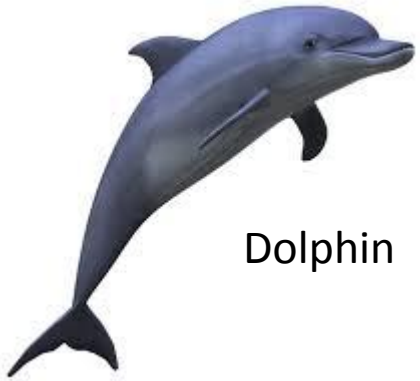
Birds

Penguin

- Are warm blooded
- Live on land and in water
- Have feathers, wings and beaks
- Have skeletons on the inside of their bodies
- Lay eggs

Eagle

Flamingo



Dolphin

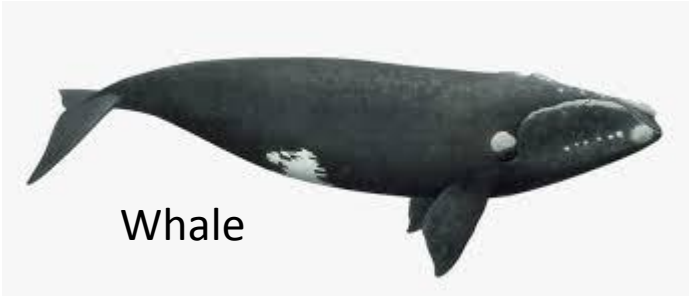
Mammals

Dog

Human

- Are warm blooded
- Live on land and in water
- Have hair or fur
- Have skeletons on the inside of their bodies
- Give birth to live babies which drink their mother’s milk

Tiger



Whale

Your task today

Using the pictures of animals in the task document can you create a table, like the one below, to list the animals in the correct groups?

Fish	Reptile	Amphibian	Bird	Mammal
				• Hippopotamus

Fast Five

True or False

1)Birds live on land and in water
2) Fish are cold blooded
3) Amphibians are warm blooded
4) Reptiles have scales
5) Mammals give birth to eggs.

Answers on the next slide

Fast Five

True or False

1)Birds live on land and in water **True**
2) Fish are cold blooded **True**
3) Amphibians are warm blooded **False**
4) Reptiles have scales **True**
5) Mammals give birth to eggs. **False**