

Classification (2)

Year 8

WC 8th October 2012

Classification (2)

- **WALT: Identify the different categories of animals and plants**
- I must be able to state features of the five types of invertebrates
- I should be able to use a key to identify a variety of animals
- I could explain some unique features of the 5 different kingdoms (especially why fungi are not plants)

Living things can be split up into smaller groups, these groups are called:

Kingdom

Phylum

Class

Order

Family

Genus

Species

King Philip Came Over For Good Soup

Every living thing can be classified into these groups, with kingdom being the largest category and species being the smallest.

There are 5 kingdoms used to classify living things:

- Plant
- Animal
- Fungi
- Protocista
- Prokaryote

Plants

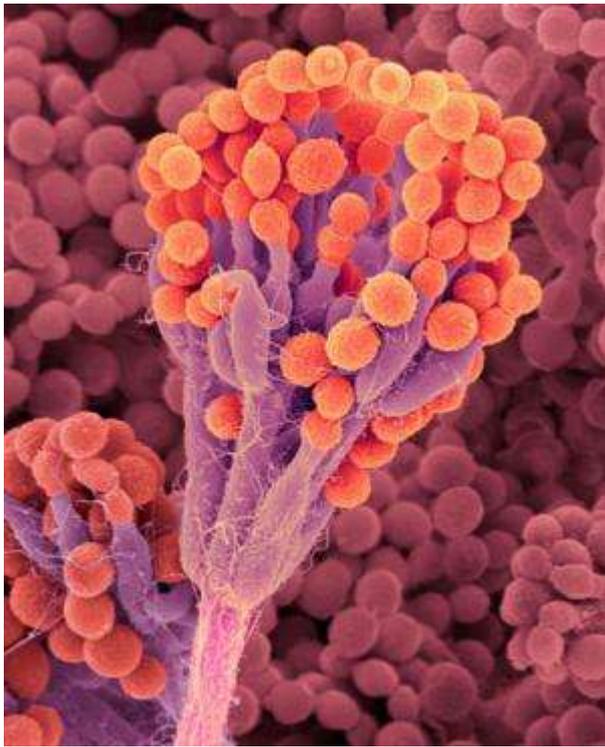
- All plants are **multicellular**, this means that they are made up of lots of cells.
- They all contain **chloroplasts**, so that they can carry out **photosynthesis**.
- They all use photosynthesis to create their own **food**.

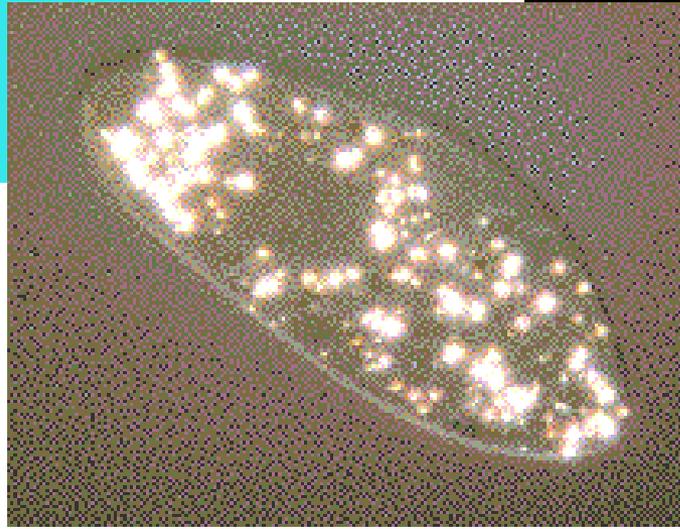
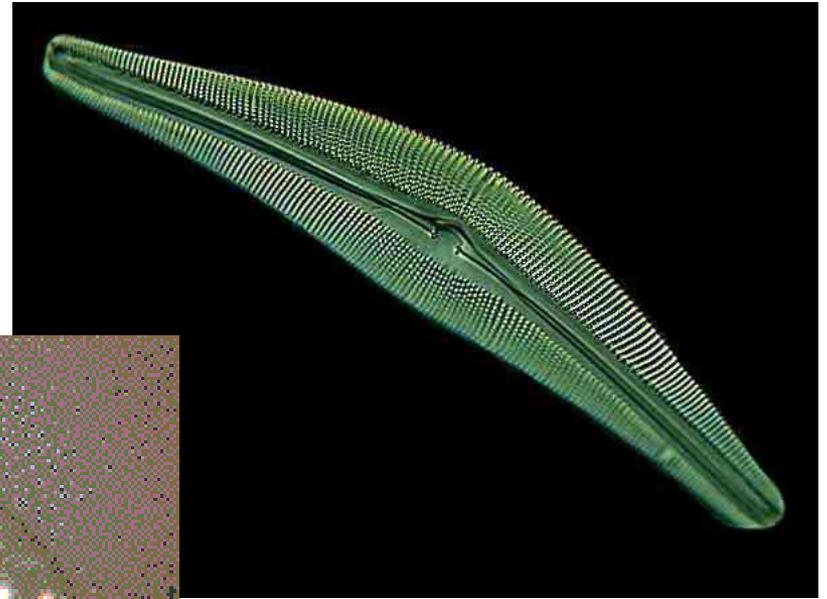
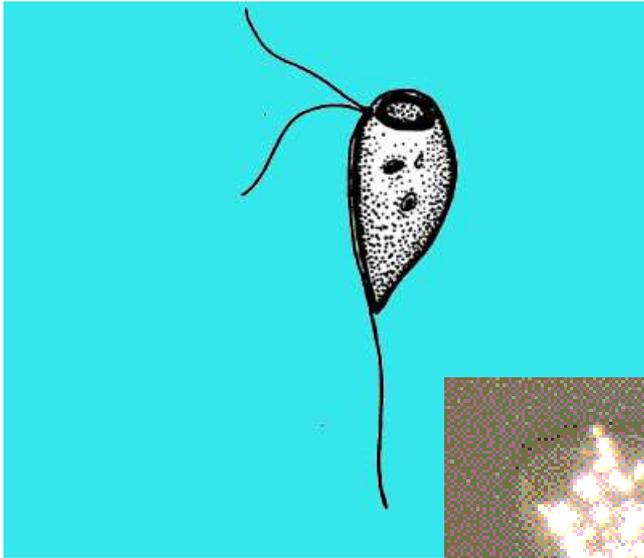
Animals

- Animals are also **multicellular**.
- Animals don't carry out photosynthesis, they need to **feed** on other plants and animals.
- Animal cells **don't have cell walls**, this means they can move freely.
- Animals have a **nervous system** so that they can move.

Fungi

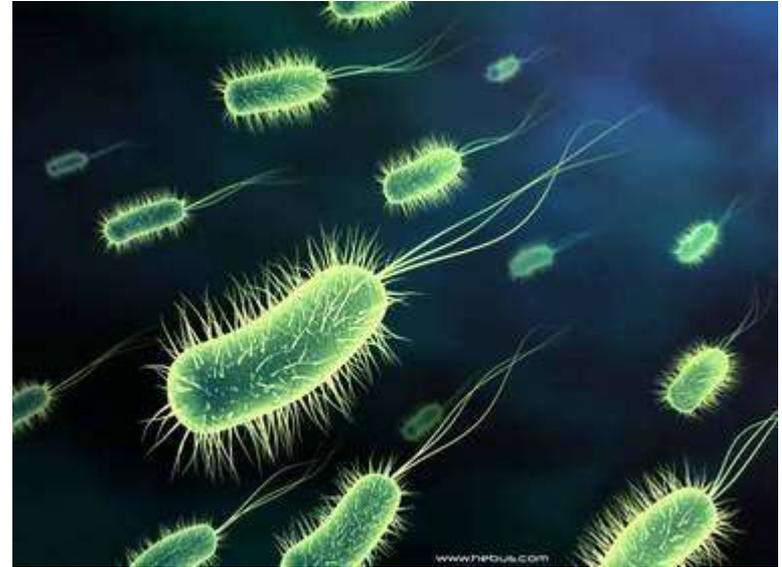
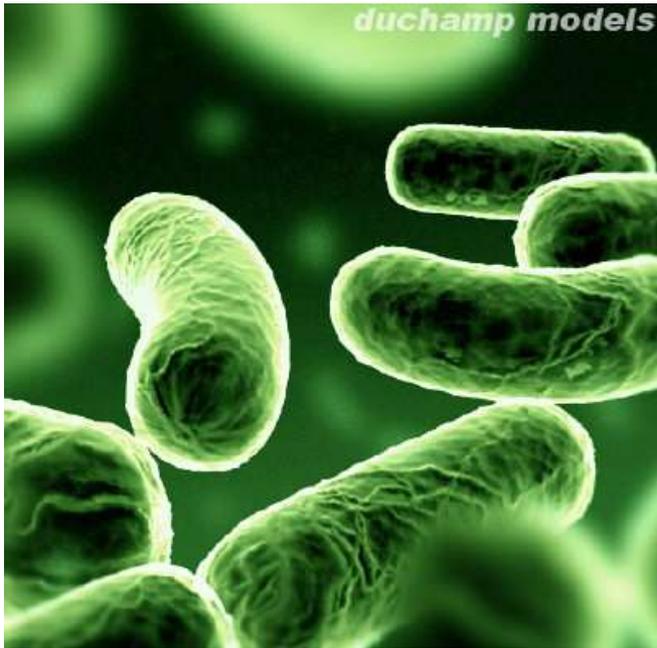
- These can be **multicellular** or **unicellular** (made of only 1 cell).
 - Their bodies look like threads called **hyphae**.
 - Fungi don't photosynthesise; they feed by **absorbing** nutrients from material around them.
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- **FUNGI ARE NOT PLANTS AS THEY DO NOT PHOTOSYNTHESISE**





Protoctista

- These are usually **unicellular (single-celled)**.
- Some look like animal cells, but some look like plant cells and contain chloroplasts.
- Have nucleus
- E.g. amoeba



Prokaryotes

- These are also **unicellular**.
- They do not have a nucleus.
- Most **feed** from other organisms, some contain a form of **chlorophyll** for photosynthesis.
- E.g. bacteria

We will focus on just the animal and the plant kingdoms

- The animal kingdom is split into vertebrates (amphibians, reptiles, mammals, birds, fish) and invertebrates (called arthropods) – the two different types are spiders and insects.
- The plant kingdom is split into flowering plants (conifers and true flowering plants) and non-flowering plants (mosses and ferns)
- Using pp.86-89 of the red books, draw two flow diagrams (1 for plants and 1 for animals) like the ones in the book but including all the different categories listed in this slide.
- ...write on the difference between a spider and an insect

Turn to the blue books – p.26

1. Look at the diagrams and do questions 1-5 under “Key to vertebrates in Fig. 3.8” of p.27
2. Do Exercise 8.2, questions 1 and 2 on page 90 of red books
3. **PREP** – Carry out questions 1 and 2 on pages 27 and 28 under “Homework Assignment” of the blue “Biology” book (Roberts and Mawby).

Classification Puzzles

1. Four vertebrates **A**, **B**, **C** and **D** are a zebra, a monkey, a whale and a robin. **C** is not a mammal, **B** is smaller than **A**, but **B** is larger than **D**.

Which vertebrate is which?

3. My body is divided into three parts called a head, a thorax and an abdomen. I have a skeleton on the outside of my body called an exoskeleton, which isn't made from bone. Fertilisation of my eggs takes place inside my body and my young are laid in soft eggs. I can fly and have 6 legs.

Which group in the animal kingdom do I belong to?

2. I am carnivorous when I am an adult, feeding on insects. I can get oxygen into my body using both my lungs and my skin. I have a backbone. I must keep my skin moist at all time otherwise I will die by dehydration (drying out). I reproduce in fresh water and my eggs are fertilised outside my body.

What class of animal am I?



4. I am a dog that looks like this. What is my species?

Classification Puzzles

1. Four vertebrates A, B, C and D are a zebra, a whale, a robin and a monkey. C is not a mammal but B is. B is larger than A, but B is smaller than C. Which vertebrate is which?

A is a whale
B is a zebra
C is a robin
D is a monkey

3. My body has three parts: a head, a thorax and an abdomen. I have six legs and antennae on the outside. I have an exoskeleton made from chitin. My eggs take a long time to develop. My young are born as larvae and have three pairs of legs. Which kingdom do I belong to?

I am an insect (an invertebrate and an arthropod)

2. I am carnivorous when I am an adult, feeding on insects. I can breathe through my skin and my lungs. I must stay in water at all times. I have a body that is mostly water. I reproduce in fresh water and my eggs are fertilised outside my body.

I am an amphibian

What class of animal am I?



My species is a domestic dog (lupus familiaris)

Full genus and species name:

Canis lupus familiaris