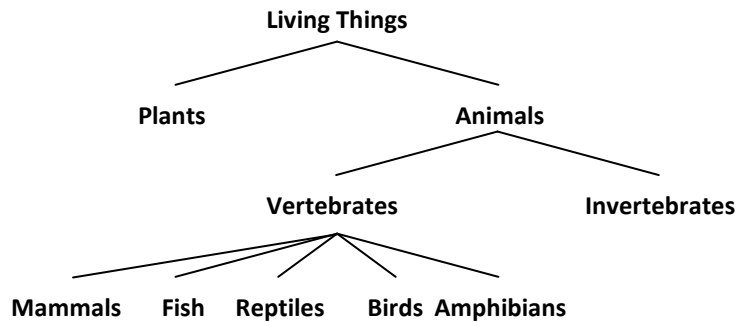


## Summary – Living Things

### Classification

Biologists have **classified** living things into **groups**. Living organisms which share similarities are put into the same group.



**Plants** make their own food using the sun's energy. **Vertebrates** all have a **backbone** (spine). The **5 vertebrate groups** can be split up according to their body coverings:

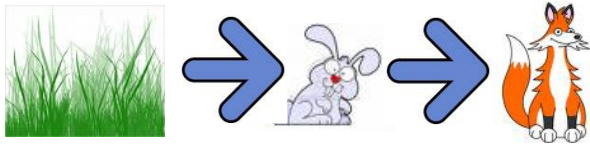
- **Mammals** have hair
- **Reptiles** have dry skins
- **Amphibians** have soft moist skin
- **Birds** have feathers
- **Fish** have wet scales

### Habitats

The **places that animals and plants live** in are called their **habitats**. For example the habitat of lions, giraffes and zebra would be the African grassland.

### Food Chains

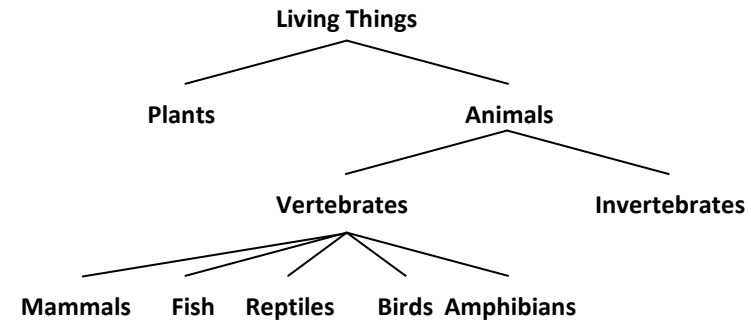
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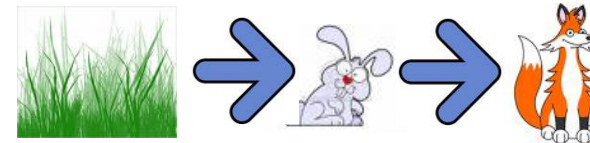
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### Food Chains

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The **arrows** between the organisms in the food chain shows the **direction of the energy flow**. The energy comes from the sun and is converted into chemical energy by green plants by photosynthesis. Lots of food chains can be **joined together** to make a **food web**.

### Measuring Abundance

We can investigate the kinds of living things in habitats around the school grounds.

**Quadrats** can be used to **sample the plant life** in a habitat. A quadrat is a square put on the ground. The **number of squares** with a particular plant in are counted. The result is the **abundance** of that plant

### Variation

Although humans are members of the same species they are all different – they show **variation**. Some ways in which humans differ from one another are height, weight, eye colour and hair colour.

Variation can be caused by two factors:

- **Environmental variation**– differences caused by our **environment** *e.g.* scars, hair dye, diet etc.
- **Inherited variation**– differences **passed on** from our parents in our DNA *e.g.* eye colour, skin colour etc.

There are two different types of variation:

- Continuous variation – measured on a scale *e.g.* height, weight
- Discontinuous variation – separated into groups *e.g.* eye colour, tongue rolling.

### DNA

DNA is the molecule that makes us unique. It determines our eye colour, hair colour etc.

### Adaptions

All living things are **adapted** to live in their habitats. Polar bears live on the polar ice. They have thick, white fur to keep them warm and to camouflage them. They have sharp teeth for tearing the meat of their prey. Flowering plants are scented and brightly coloured to attract insects to help their reproduction.

### Evolution

The **adaptions** living things make help them survive. If a living thing has an adaption which helps it survive better than others, then the adaption is **more likely to be passed** on to the next generation. This is called “natural selection” or “survival of the fittest”.

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