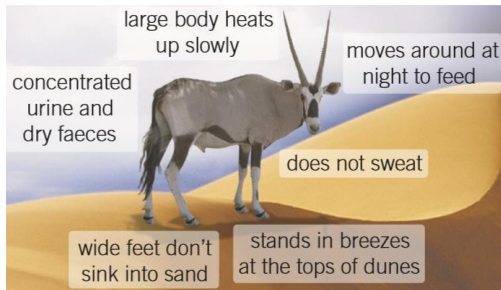


INHERITANCE

Adaptations – Adaptations are features that animals and plants have which all them to survive in their habitat. They can be structural adaptations or behavioural adaptations



Extinction – This is the permanent loss of an entire species.

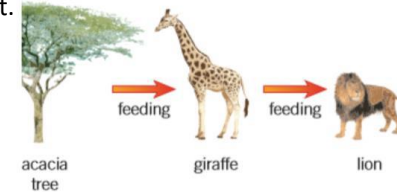
It can be caused by:

- New diseases
- New predators/ Hunting
- New competitor
- Lack of food
- Environmental changes
- Natural disaster

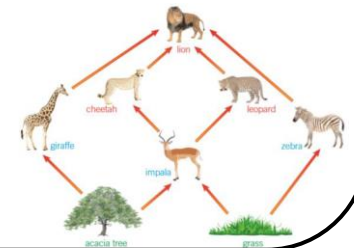


FOOD CHAINS AND WEBS

A food chain shows simple feeding relationships. They always start with a producer. The arrows show the direction of energy flow through the habitat.



A food web shows several linked food chains that have species in common



Biodiversity – is the measure of the number and spread of populations in a particular habitat. Generally, the more biodiverse and area is, the better it is able to withstand changes.

DNA

DNA is found in the nuclei of cells and organized into chromosomes. This genetic information is passed from one generation to the next. It is called heredity and why we resemble our parents. The genetic information itself is contained in a complex molecule called DNA.

DNA molecules contain two strands. The strands are twisted around each other to form a double helix. These strands are held together by bonds between base pairs.



DNA is the material which contains all of the genetic information

DNA – in the shape of a double helix

Genes – a section of DNA which hold the information for a particular characteristic

Chromosomes – long strands of DNA which hold many genes, humans have 46 of these in the nucleus of cells



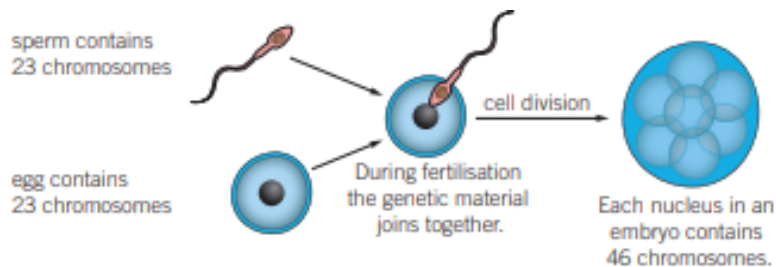
Genetic Modification - Genetic modification is the process which scientists can use in order to alter the genes of an organism • Examples include altering bacteria genes to produce insulin, altering crops to produce their own insecticide or to be more resistant to drought

Useful Links

<https://www.bbc.co.uk/bitesize/topics/zpffr82>

<https://www.youtube.com/watch?v=iBoXpURc1es>

Inheritance - Characteristics are passed along from parents to their offspring. Half of the genetic information comes from each parent, this is passed on through the sex cells in the process of fertilisation



Natural Selection

Individuals in a species show variation, this is caused by differences in the genes

Individuals with characteristics that make it best adapted to it's environment are more likely to survive and reproduce, less well adapted ones are more likely to die

Genes from those that survive long enough to reproduce are passed on to their offspring

This is repeated over a long period of time and can lead to new species forming.

This was suggested by Charles Darwin – at the time it was not well accepted because there was a lack of evidence to support it