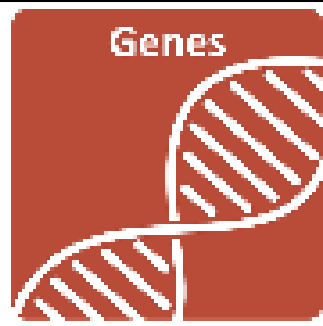


Knowledge organiser

Y8 topic: Evolution



I have already learned:

In KS2: that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.

In Y7 cells: That cells contain a nucleus where genetic material is stored.

In Y7 variation: There is variation between individuals of different species. The variation between individuals within a species is either continuous or discontinuous.

This topic links to:

KS4 Inheritance and variation: I will study this in Y11

It is important to study about inheritance because...

It is critical for understanding biology as it is the only scientific explanation for why life on earth is so diverse. It also explains why really different forms of life share striking similarities, how changes occur within populations, and how new life forms develop.

The principles of evolution are used in all sorts of industries. In farming, for example, Natural Selection explains how pests are able to gradually become more resistant to pesticides.

Possible careers involving Inheritance are...

Research scientist

Laboratory technician

Ecologist

KNOWLEDGE ORGANISER
Y8 topic: Evolution



Key Word	Definition
population	Group of organisms of the same species living in the same place.
natural selection	Process by which species change over time in response to environmental changed and competition for resources
extinct	When no more individuals of a species remain
biodiversity	The variety of living things. It is measured as the difference between individuals of the same species, or the number of different species in an ecosystem
competition	When two or more living thigs struggle against each other to get the same resource
evolution	Theory that the animal and plant species living today descended from species that existed in the past.
gene	a section of DNA that is responsible for a characteristic like eye colour or blood group
variation	The differences within a species.

Biodiversity is the variety of living things. It is vital to maintaining populations. Within a species variation helps against environmental changes, avoiding extinction.

Within an ecosystem, having many different species ensures resources are available for other populations.



1. Long time ago, there were giraffes with short and long neck. The ones with short neck couldn't eat, they were really hungry.

2. Only long-necked giraffes survived.

Natural Selection

A theory that explains how species evolve and how extinction occurs.

1. Variation exist within a population
2. Those better adapted to their environment are able to survive and reproduce
3. These organisms pass on these beneficial genes to their offspring

The picture shows some species that live in the rainforest.

The rainforest has high biodiversity as there are large number of organisms living there.

