

**adaptation**

A genetically inherited trait that improves an organism’s chances of surviving and reproducing.

**artificial selection**

A process where humans select which organisms to breed, based upon a desirable trait. Examples include breeding cattle that produce greater volumes of milk or plants that are resistant to disease.

**cloning**

The process of making an identical copy of DNA, cells or an entire living organism. The copies are called ‘clones’. Cloning can occur naturally and can be engineered by humans.

**DNA (deoxyribonucleic acid)**

A unique code in an organism’s cells that contains the instructions for how that organism will look and function. DNA is inherited by children from their parents, which is why children have similar traits to their parents.

**endangered species**

A species at risk of becoming extinct.

**evolution**

The changes and developments that animals, plants and other organisms go through over a very long period of time due to changes taking place in their DNA. The basic idea behind the ‘Theory of Evolution’ is that all species have evolved from early, simple life forms.

**extinct**

An animal or plant species that has died out and is no longer present in the world population.

**fossil**

The remains of a once-living organism preserved in rock.

**genetic engineering**

The process of altering an organism’s DNA, usually to improve the organism in some way, for example, to make a crop resistant to pests or disease.

## **habitat**

The place where an animal, plant or any other type of organism lives and reproduces.

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## **inheritance**

The transfer of traits, such as eye colour, from parents to their offspring.

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## **naturalist**

A person who studies the natural world, including plants, animals and other organisms.

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## **natural selection**

A process, proposed by Charles Darwin, which causes gradual evolutionary changes in a species. Organisms that are better adapted to their habitat reproduce more successfully, increasing the numbers in the population with the beneficial adaptation. Other traits which are not beneficial are lost.

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## **species**

A group of organisms that have common characteristics and can breed. Humans (*Homo sapiens*) are an example of a species.

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## **specimen**

A sample of a living, dead or preserved animal or plant, which can be used for observation or testing.

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## **trait**

A characteristic which is determined by the organism's DNA, such as eye colour or shoe size.

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## **variation**

The differences in certain traits such as hair colour. Variation is caused by slight differences in each individual's DNA.