Museum of Natural History

Evolve, Adapt, Survive!

Life, As We Know It iPad trail

Follow-on resource for schools

oumnh.ox.ac.uk

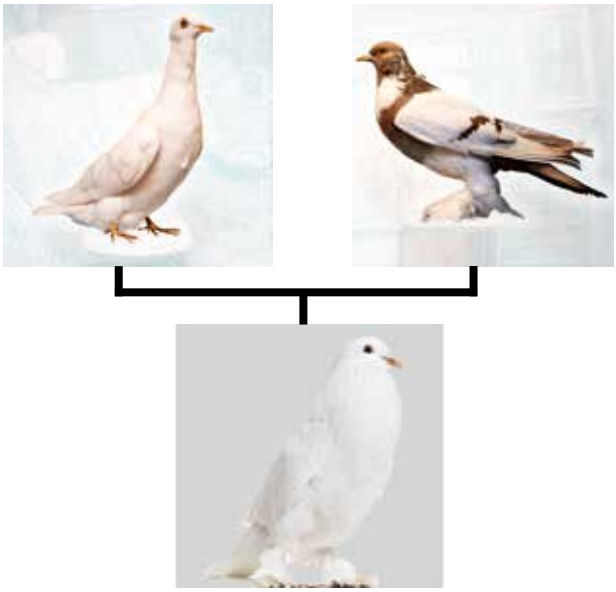
INHERITANCE & VARIATION

INHERITANCE

Parents pass characteristics to their offspring through **inheritance.**

EVIDENCE

When these two pigeons had a chick, it got its white feathers from one parent and its feathery feet from the other.



VARIATION

Within a species no two individuals are exactly the same. This is called **variation.**

EVIDENCE

These butterflies show variation in colour, wing pattern, size, and shape, even though they are all the same species

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SELECTION & ADAPTATION

SELECTION

Individuals with characteristics more suited to their environment are more likely to survive and pass these successful characteristics to their offspring.

EVIDENCE

The leaf insects that look most like leaves are more likely to go unnoticed by predators and so survive long enough to reproduce, passing on to their young the same useful characteristics that helped them to survive.

ADAPTATION

Animals that survive long enough to reproduce may pass similar, though slightly different, characteristics to their offspring. These small changes add up and lead to bigger changes over time.

EVIDENCE

As the environment changed, horses gradually evolved over millions of years to be more adapted to their environment, from much smaller ancestors to the horses we know today.

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SELECTION & ADAPTATION

ADAPTATION

All living things are adapted to their environment.

EVIDENCE

The gills of Blue Sharks allow them to breathe oxygen in the water, and their long torpedo shaped body helps them to swim over long distances.

EVIDENCE

Sloths' long arms and curved feet help them to cling onto branches, and they can turn their heads three quarters of the way around, helping them to see predators from any direction.

EVIDENCE OF EVOLUTION

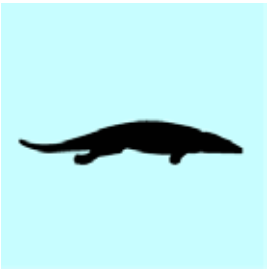
FOSSILS

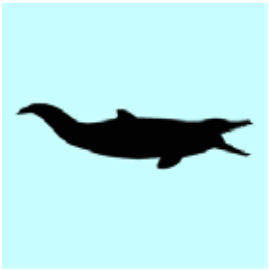
Fossils can give us incredible information about life in the past.

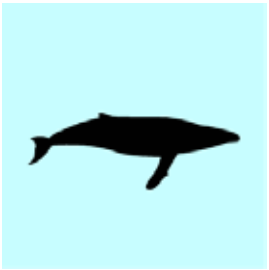
EVIDENCE

This plesiosaur fossil has flippers, so it must have lived in water. The long, thin, sharp teeth helped it to eat soft-bodied and slippery prey, like fish. So we know something about its diet. Using fossils in this way helps us to build a picture of life in the past.

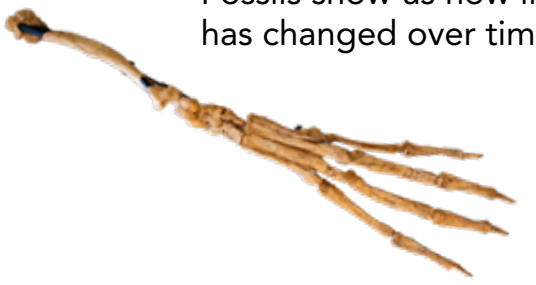
CHANGE OVER TIME







Fossils show us how life has changed over time.



EVIDENCE

Fossils of whale ancestors had legs, so must have lived on land. You can see the traces of these legs in skeletons of whales and dolphins today.

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