

# Knowledge Organiser

Science Focus

Evolution and Inheritance

Year 6

Spring 1

## What? (Key Knowledge)

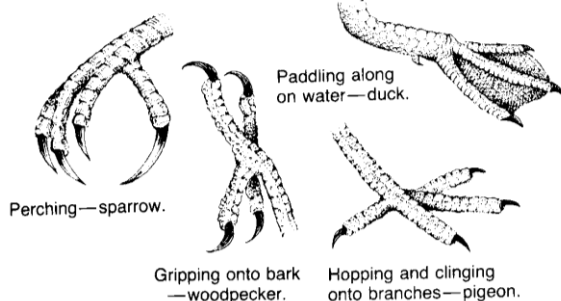
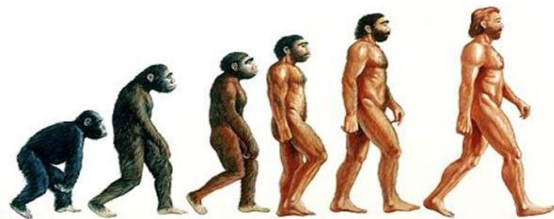
**How are fossils formed and why are they important?**  
Fossils are found in sedimentary rocks. These rocks form layers so dead animals and plants can get trapped between the layers. When palaeontologists compare fossils to animals today, they can see similarities and identify relationships between them.

**What influences our characteristics?**  
Some characteristics are inherited from our parents through our genes (e.g. eye colour, hair colour) while other characteristics come from choices we make and the way that we live, such as where we live, the food we eat or exercise we take (environmental characteristics).

**Why is adaptation an important process?**  
Some animals have changed over time to suit their habitat. Adapting to suit a particular environment is essential because it helps the animal to survive.

**Why does evolution occur?**  
Evolution occurs when there is competition to survive (natural selection). The winners are those who best adapt as they are more likely to reproduce and pass on their useful characteristics. Whereas, individuals that are poorly adapted are less likely to survive and therefore their characteristics are not as likely to be inherited. Over time, the characteristics that help survival become more common and a species gradually changes.

## Diagrams and Symbols



## Statutory Requirements

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- To be able to identify how animals are adapted to suit their environment in different ways.
- To recognise and understand that adaptation may lead to evolution.

## What? (Key vocab)

### Spelling

### Definition

#### Adaptation

The process of change so that an organism or species can become better suited to their environment.

#### Environment

The surroundings or conditions in which a person, animal, or plant lives.

#### Evolution

The process by which different kinds of living organism are believed to have developed from earlier forms during the history of the Earth.

#### Fossil

The remains or impression of a prehistoric plant or animal embedded in rock and preserved.

#### Inheritance

To gain a quality or characteristic genetically from a parent or ancestor.

#### Offspring

A person's child/children or an animal's young.

#### Selective breeding

The process by which humans use animal breeding and plant breeding to develop selective characteristics by choosing particular animals and plants.

#### Reproduction

The production of offspring by a sexual or asexual process.

## Possible Experiences

- Using real life fossils to explore the past.
- Constructing a family tree to explore traits that have been inherited.
- Visiting a wildlife park/reserve to investigate how animals have evolved and adapted in order to become more suited to their environment.