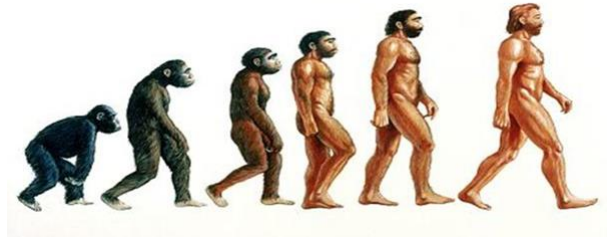


## Evolution – knowledge organiser

Key knowledge	
What is evolution?	<ul style="list-style-type: none"> <li>The process by which different kinds of living organism are believed to have developed from earlier forms during the history of the earth</li> </ul>
What is a fossil?	<ul style="list-style-type: none"> <li>Fossils provide evidence for evolution</li> <li>They can be imprints left behind</li> <li>Or formed when animals die under the right conditions</li> </ul>
Living things produce offspring of the same kind – humans have human babies and Horses produce horse	
Offspring are not identical to parents	
DNA carries genetic material from parent to offspring	
Adaptation can lead to evolution	
Scientists we need to know about	
5 facts about Charles Darwin	<ul style="list-style-type: none"> <li>Charles Darwin was born in England on the 12th of February 1809</li> <li>His 1859 book 'On the Origin of Species', detailed much of his research on natural selection</li> <li>He got many of his ideas whilst on a 5 year voyage on HMS Beagle. On this voyage, Darwin visited the Galapagos Islands.</li> <li>He dropped out of medical school – he hated the sight of blood</li> <li>Darwin is buried inside Westminster Abbey</li> </ul>

### Evolution



### Fossils



### Adaptation

**POLAR BEAR**

**POLAR BEARS HAVE AN EXCELLENT SENSE OF SMELL.**  
THIS ADAPTATION HELPS THEM FIND THEIR PREY.

**A POLAR BEAR HAS THICK WHITE FUR.**  
THIS HELPS IT BLEND INTO THE SNOW AND ALSO STAY WARM.

**POLAR BEARS HAVE STRONG LEGS.**

**THIS HELPS THEM SWIM FAST THROUGH THE ICY WATER.**

**POLAR BEARS HAVE THICK, ROUGH, SAND-PAPER LIKE PAWS.**  
THIS HELPS THEM GRIP THE SLIPPERY ICE AND GET GOOD TRACTION.

**Fun Fact:**  
Polar bears can run 20 mph (miles per hour), and swim 26 mph!

### Key Vocabulary

- Adaptation** – The process of change so that an organism or species can become better suited to their environment
- Body fossil** – Preserved remains of the body of the actual animal or plant itself
- Breeding** – The mating and production of offspring by animals
- DNA** - DNA is the material that carries all the information about how a living thing will look and function. Each piece of information is carried on a different section of the DNA. These sections are called genes.
- 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
- Inherit** – To gain a quality, characteristic or predisposition genetically from a parent or ancestor
- Offspring** – A person's child or children/ an animal's young
- Reproduction** – The production of offspring by a sexual or asexual process
- Selective breeding** – The process by which humans use animal breeding and plant breeding to develop selective characteristics by choosing particular animals and plants
- Trace fossil** – Indirect evidence of life in the past such as the footprints, tracks, burrows, borings and waste left behind by animals