

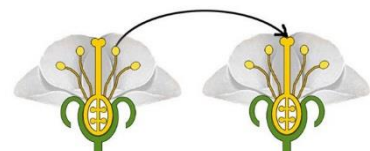


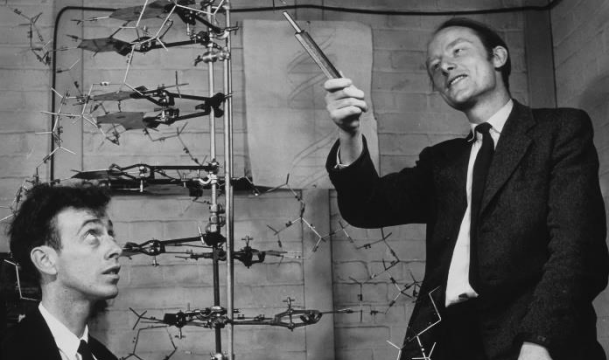
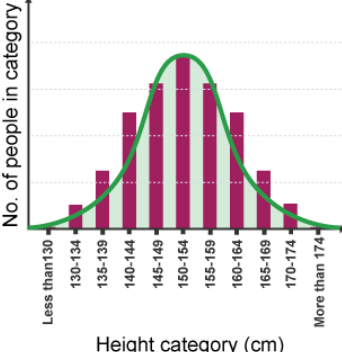
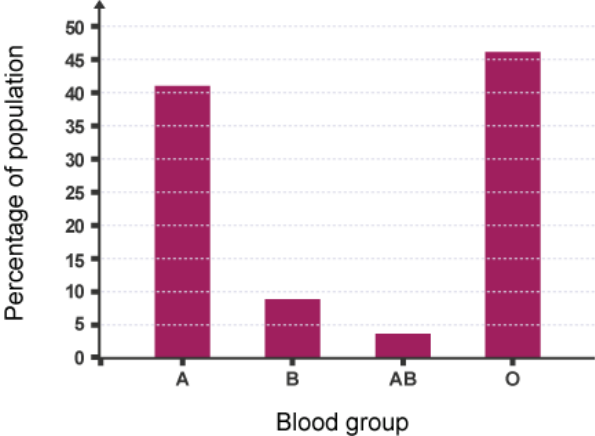
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# **Inheritance and Selection Booklet**

Y9 – Inheritance and Selection knowledge organiser

Variation	Differences between living things
Fertilisation	Fusing of two sex cells (gametes) e.g. sperm joining together with an egg cell (ovum)
Species	A group of organisms that can reproduce with each other to produce <b>fertile</b> offspring
Inherited variation	Differences between individuals which have been passed on by parents through reproduction e.g. eye colour, blood group
Environmental variation	Differences between organisms caused by environmental factors e.g. how free range chickens look different to caged chickens, having a scar, speaking French
Environment	The conditions around an organism caused by physical environmental factors
Inherited characteristics	These are caused by genetic information in the nuclei of gametes
Variety	<p>A species of plants may be divided into varieties. Each variety has a certain set of characteristics that make it different from other varieties</p>  <p>e.g. a variety of daffodils</p>
Disease resistance	<p>Crops that are resistant to disease may grow at different rates.</p> 
Gametes	Sex cells e.g. Sperm and egg (ovum) in animals and pollen grains and ovules (eggs) in plants
Pollination	Transfer of pollen onto the stigma from the anther



Crick and Watson	 <p>Discovered the shape of the DNA molecule in the nuclei of cells</p>
Continuous variation	<p>Data values that change gradually within a range</p> <p>e.g. weight, height etc.</p> 
Discontinuous variation	 <p>Data values that do not have a continuous range of options e.g. blood group, gender, eye colour, tongue rolling</p>
Biodiversity	The total variety of animals and plants in a habitat
Gene banks	Places where living plant and animal matter can be stored in controlled conditions for a long time
Quadrats	Large sample squares used to determine the number of plants in a habitat
Natural selection	The process whereby organisms better adapted to their environment tend to survive and produce more offspring. The theory of its action was first fully expounded by Charles Darwin, and it is now regarded as be the main process that brings about evolution

DNA

The substance that genes and chromosomes are made from. Found in the nuclei of cells

