



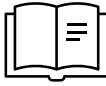



Biology 15: Genetics and Evolution (Triple)

1. Understanding genetics (TRIPLE ONLY)	
Mid 19th century 	Gregor Mendel a monk who carried out breeding experiments on plants. Discovered the inheritance of characteristics as 'units'
Late 19th century	Chromosomes observed
Early 20th century	Chromosomes linked to inheritance. Genes discovered.
Mid 20th century 	Structure of DNA discovered and the way genes code for proteins.
Today 	Antibiotic resistance provides real time evidence of evolution in action

2. Theory of evolution (TRIPLE ONLY)	
Charles Darwin 	Proposed the theory of evolution in his book 'on the origins of species'
Darwin's theory took a long time to be accepted because: 	<ul style="list-style-type: none"> • It challenged the idea that God made all creatures • There was not enough evidence at the time • Mechanism of inheritance was not understood for another 50 years.
Jean-Baptiste Lamarck 	Had a different theory about inherited characteristics. He believed they were acquired through the life of the parents. He was wrong.
Alfred Russell Wallace	Independently came up with the idea of evolution and natural selection at the same time as Darwin. Worked on the idea of speciation
Speciation	Formation of a new species as a result of evolution