

6 Inheritance and Evolution

DNA	The chemical used to code for our characteristics
Gene	A section of DNA that codes for one characteristic
Chromosome	A strand of DNA that has many genes. There are 46 chromosomes in an adult human cell
Sexual reproduction	Reproduction when two gametes fuse. It leads to mixing of genes
Asexual reproduction	Reproduction where there is no fusion of gametes. Offspring are clones.
Clones	Exact genetic copy
Gamete	Sperm and eggs
Meiosis	Cell division used to make gametes. It involve DNA copying followed by the cell splitting twice to make 4 new cells with half the normal number of chromosomes.
Allele	A version of a gene e.g. the brown allele is a version of the hair colour gene.
Dominant	An allele that you just need copy one of to see the characteristic
Recessive	An allele that you need two copies of to see the characteristic
Genotype	What alleles a person has for a characteristic
Homozygote	When you have two alleles that are the same
Heterozygote	When you have two alleles that are different
Phenotype	The characteristics you can see
Polydactyly	A dominant gene disorder where you have 6 fingers
Cystic fibrosis	A recessive gene disorder which causes you have to sticky mucus in your lungs.
Carrier	Someone who passes on a recessive gene for a disease but doesn't have the disease themselves.
Embryo screening	Using genetic tests on embryos to see if they have a gene disorder.
Genetic variation	Differences in organisms passed on through the genes e.g. blood type
Environmental variation	Differences in organisms caused by the way they live e.g. language
Mutation	A random change in the DNA code
Evolution	Gradual change
Natural Selection	How organisms change over time because the more adapted survive and breed and the less well adapted go extinct.
Selective breeding	When farmers choose the animals with the most desirable characteristics to breed together
Genetic engineering	When genes are transferred from one organism to another
Fossil	The remains of an organism that are thousands of years old
Extinct	When a species dies out
MRSA	A resistant type of bacteria
Binomial naming	The system of giving all organisms a two-word latin name e.g. a tiger is pantherus tigris
Genus	This is the first part of the name: pantherus
Species	This is the second part of the name: tigris
The three domain system	A system put forward by Carl Woese that suggest organisms can be classified into 3 groups.