DNA

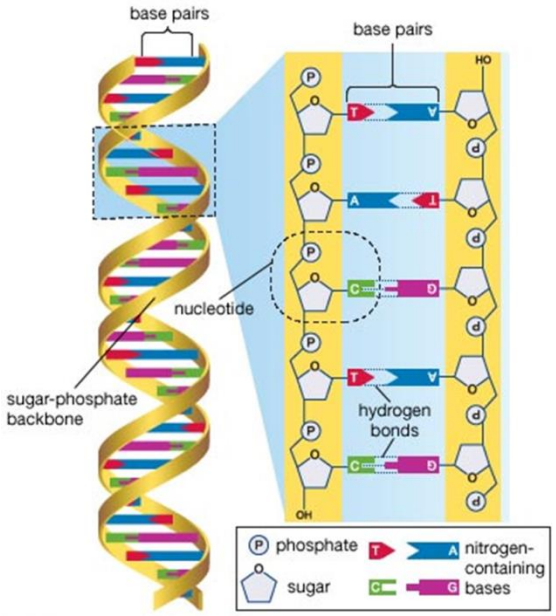
Containing genetic information to enable an organism to manufacture all the proteins required to develop and maintain an organism when necessary.

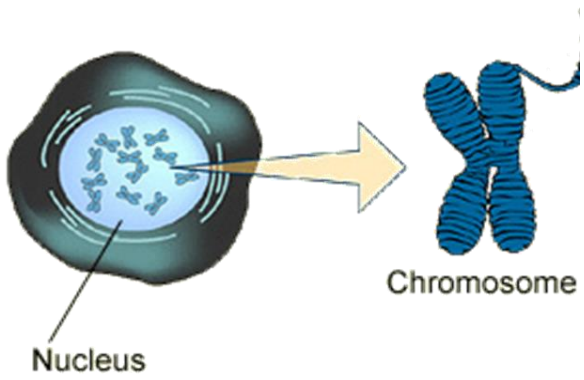
Chromosome

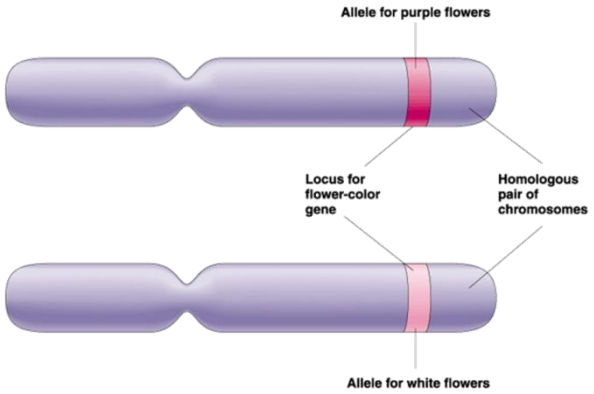
The nucleus of a cell contains chromosomes which carry instructions for the growth and development of an organism. The chromosomes are made of long strands of DNA.

Allele

The versions of genes are called alleles and may be different from each other.







Gene

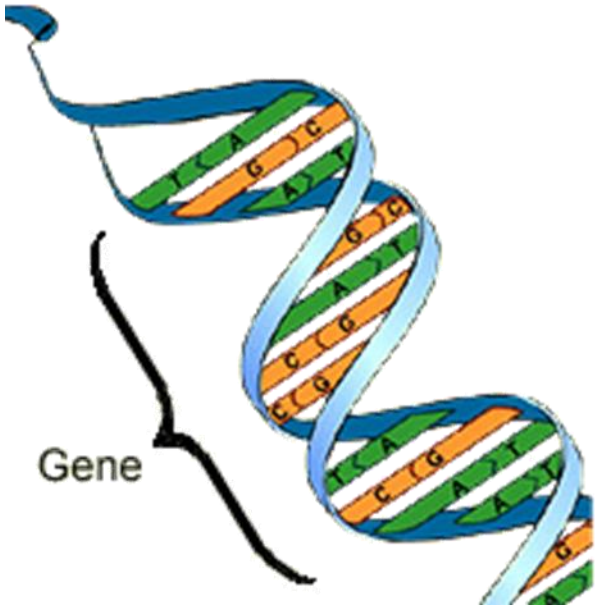
A segment of the DNA that codes for a specific protein is called a gene.

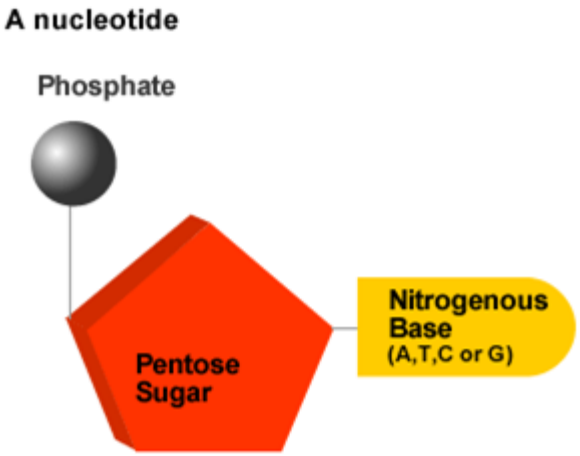
Nucleotide

DNA (deoxyribonucleic acid) units are called nucleotides which consist of a sugar, a triphosphate and a base.
There are 4 bases
A – Adenine
C – Cytosine
G - Guanine
T – Thymine

Homologous pair

Each chromosome in a pair that has the same genes is called a homologous pair



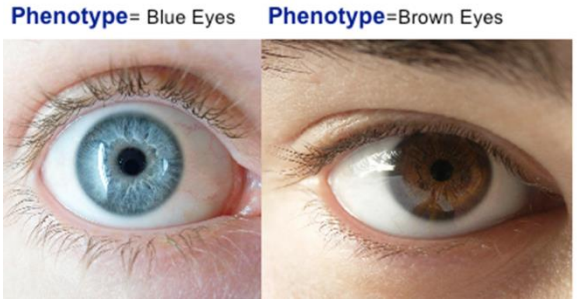


Genotype

The genotype is the combination of alleles that an organism contains. For any particular trait they can be heterozygous (different) or homozygous (same).

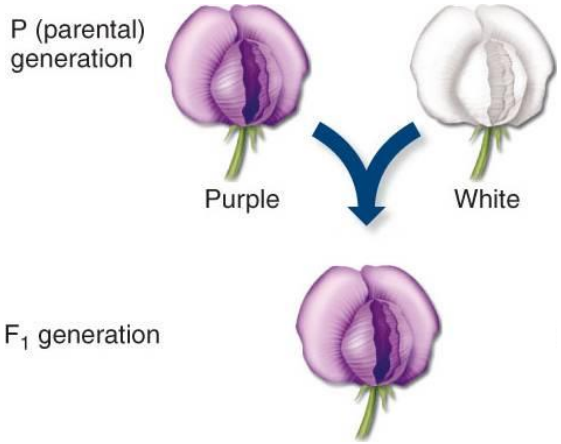
Phenotype

The phenotype is the physical trait that occurs because of the alleles.



Dominant

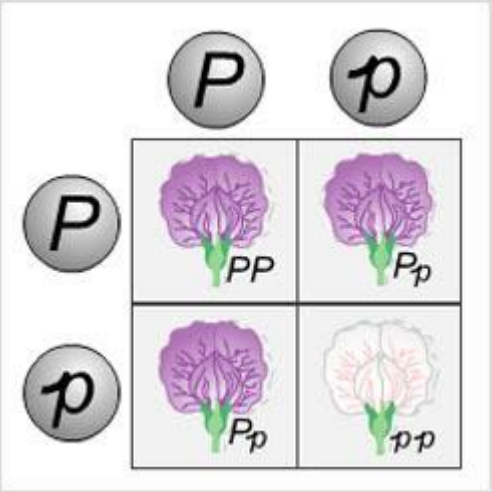
The allele that the cell uses is called the dominant allele. It is written as a capital letter. When there is 2 different alleles this is called heterozygous and the cell always uses the dominant allele.



P (purple colour) is dominant

Recessive

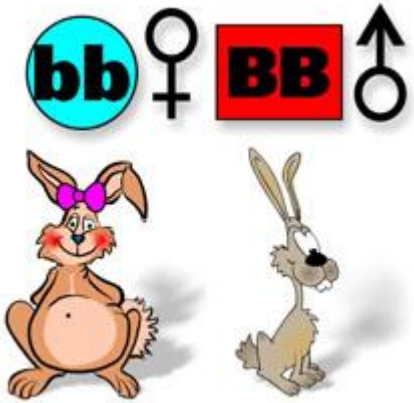
The allele that the cell uses if the dominant allele is not present is called the recessive allele. There must be two recessive alleles present, called homozygous, in order for the phenotype to show



P (white colour) is recessive

Homozygous

When there are two of the same allele this is called homozygous



Heterozygous

When there is 2 different alleles this is called heterozygous