

7.1. Inheritance is the way that genetic information is passed from a parent to a child. Members of the same biological family tend to have similar characteristics , including physical appearance and the likelihood of developing certain genetic conditions.

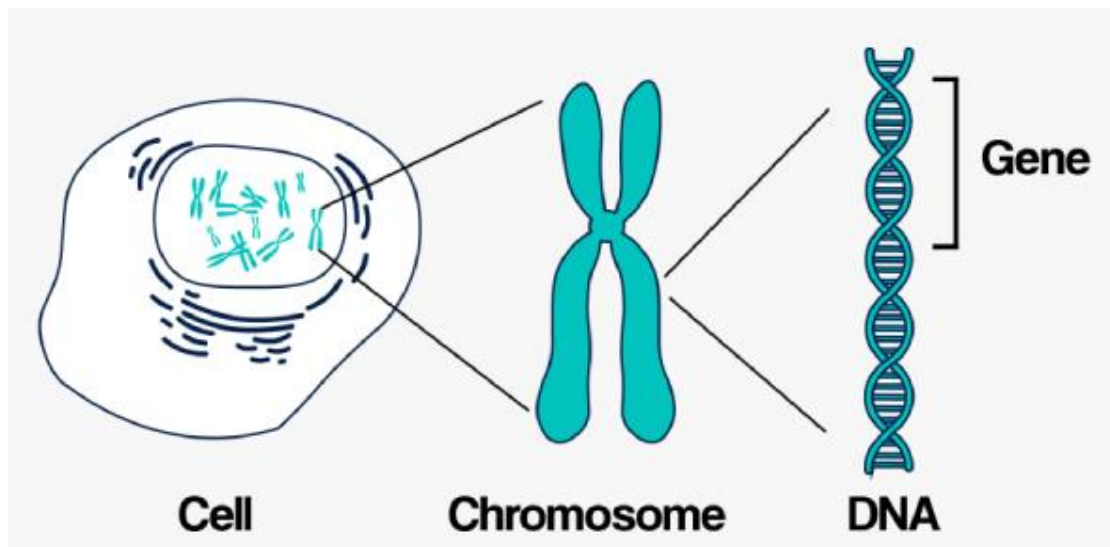
7.1.1.Genetic inheritance :Our genes are inherited from our parents, and the different combinations of these genes make us unique. Genetic inheritance controls the characteristics of all living things.

Phenotype: Is the physical manifestation of genotype. The most noticeable phenotype difference may be skin tone though other differences exist such as hair type and texture, lip, nose, and eye shape.

Genotype : Is their unique sequence of DNA. More specifically, this term is used to refer to the two forms a person has inherited from their mother and father, for a particular gene.

Chromosome :A structure found inside the nucleus of a cell. A chromosome is made up of proteins and DNA organized into genes.

DNA (deoxyribonucleic acid) : Is the cell's genetic material, contained in chromosomes within the cell nucleus and mitochondria. Except for certain cells (for example, sperm and egg cells and red blood cells), the cell nucleus contains 23 pairs of chromosomes.



Diploid: Is a term that refers to the presence of two complete sets of chromosomes in an organism's cells, with each parent contributing a chromosome to each pair. **Humans are diploid**, and most of the body's cells contain **23 chromosomes pairs**.

locus : Is the actual location of the **gene** on a region of a chromosome.

allele :Is a different form of a gene at a particular locus. The designation of two alleles at a particular locus is a genotype (gene) .

On the locus (gene) position if the both copies of are the same called

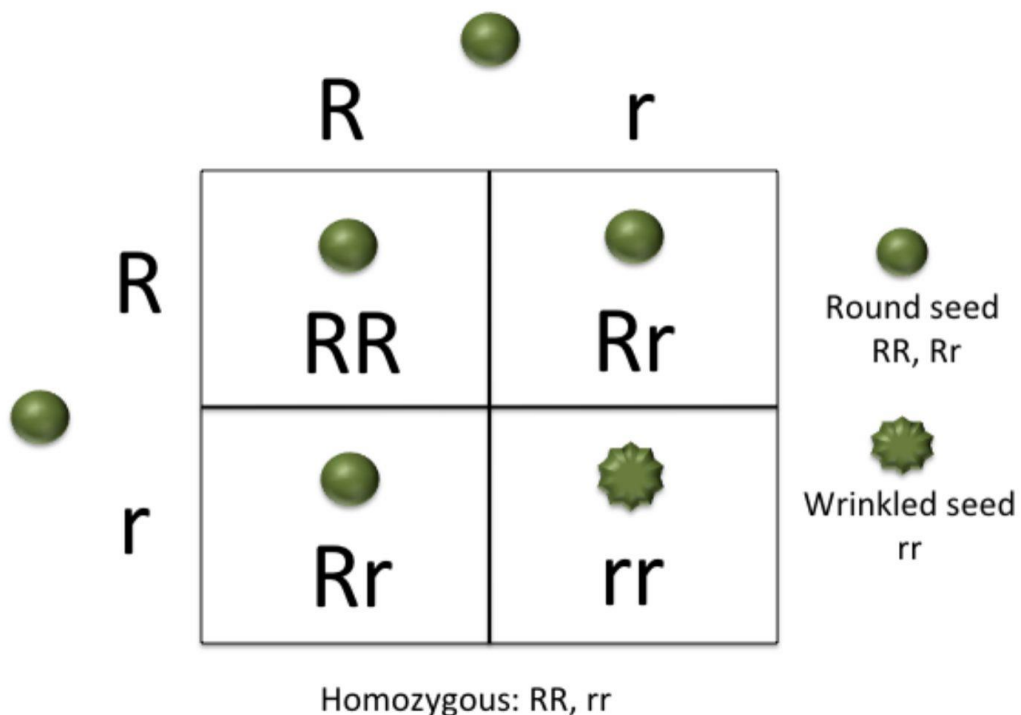
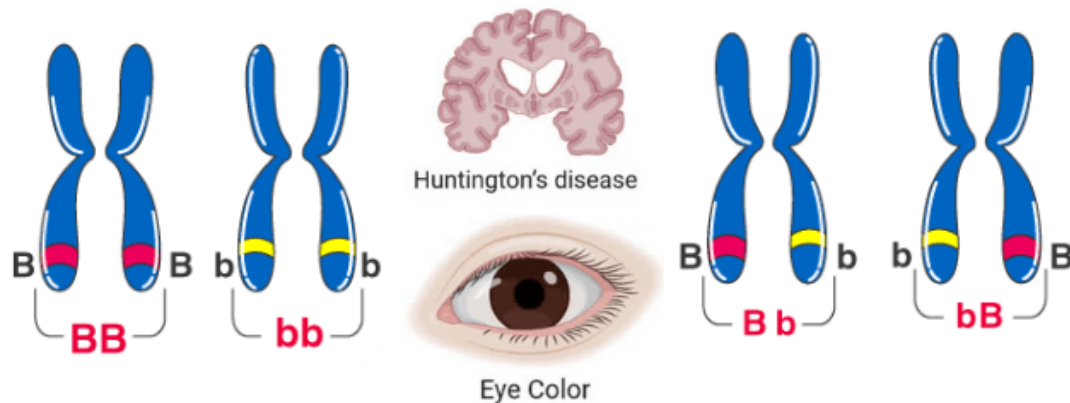
(**Homozygous**).

if the both copies of are the same called (**Hetrozygous**).

Homozygous dominant: both genes working .

Homozygous recessive: both genes not working .

Homozygous vs Heterozygous



Advice ((Inherit good behavior to your son, genes are take care of it by your parents))

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