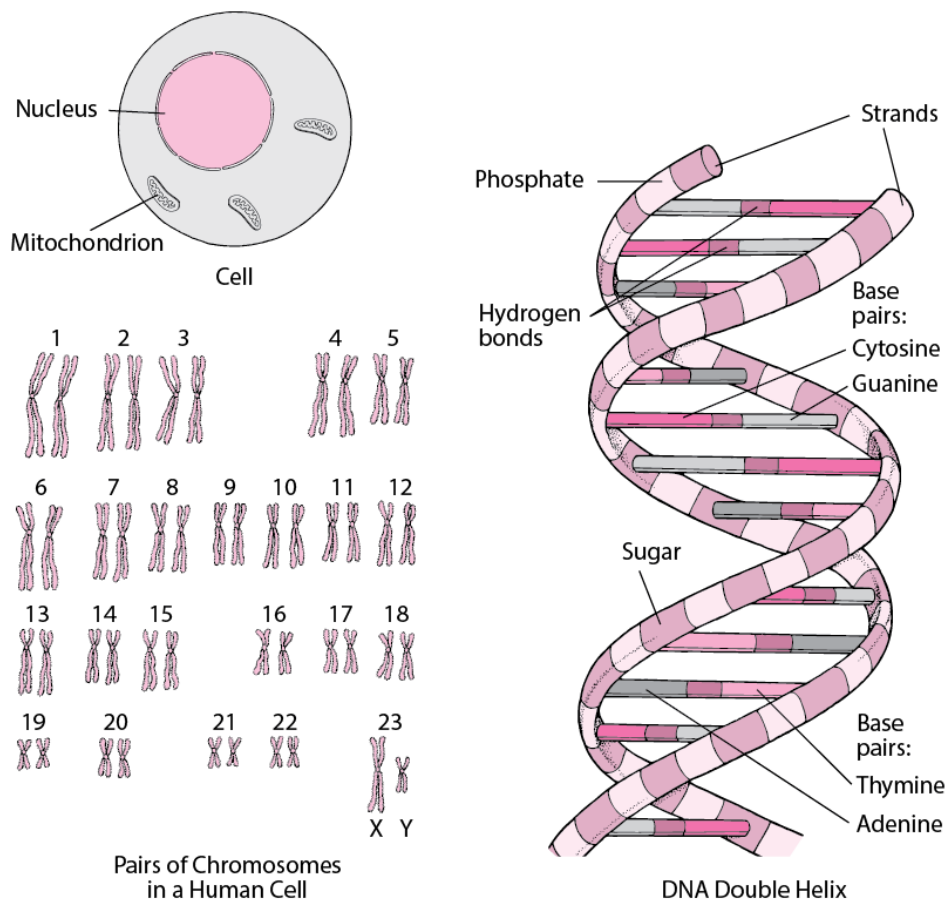


GENES AND CHROMOSOMES

A gene is a **section of DNA** which is involved in carrying information for a particular trait. They are **functional units of heredity** and are made of DNA.

Genes are responsible for the hereditary and this is the reason why we all have similar **characteristics** of both the parents like **the pigmentation of the eye, hair color**, etc. There are about 29 to 30 thousands of genes in every cell of the human body. The term gene was first coined in the year 1909 by a Danish botanist **Wilhelm Johannsen**.



Chromosomes

Chromosomes are **thread-like structures** merged together and are made of proteins and a **single molecule of deoxyribonucleic acid** – DNA. They are mainly found inside the nucleus of both animal and plant cells. They are passed to offspring from their parents, over generations.

The term **chromosome** is derived from the Ancient Greek word meaning coloured body. Every human cell contains 46 or 23 pairs of chromosomes. These chromosomes play an

important role in **cell division process** and ensure that DNA molecules are copied and distributed evenly.

