**B9 - INHERITANCE**

**9.1 - Chromosomes & Genes**

**1. Define inheritance**

 The transmission of genetic information from generation to generation.

**2. Define the terms**

**a. Chromosome** as a thread of DNA, made up of a string of genes.

**b. Gene** as a length of DNA that is the unit of heredity and codes for a specific protein. A gene may be copied and passed on to the next generation.

**c. Allele** as any of two or more alternative forms of a gene.

**3. Define the terms:**

**a. Haploid nucleus** as a nucleus containing a single set of unpaired chromosomes (e.g. sperm and egg).

**b. Diploid nucleus** as a nucleus containing two sets of chromosomes (e.g. in body cells).

**4. Describe the inheritance of sex in humans (XX and XY chromosomes).**

* **Of the 23 pairs of chromosomes present in each human cell, one pair is the sex chromosome;**
* **These determine the sex of the individual;**
* **Males have XY, and females have XX.**

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