

5.1 Basic Terms of Inheritance

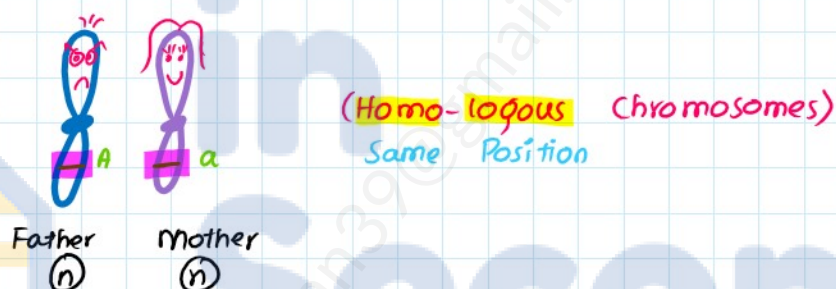
Basic Terms of Inheritance

INHERITANCE → Transmission of traits from parents to offsprings.

GENETICS → Study of genes, and their roles in inheritance.

GENE →

- Basic unit of inheritance
- Sequence of Nucleotides → Determines sequence of A-Acid
- Part of DNA → Determines a specific protein



LOCUS: (Location / Position)

→ Position of a gene on a chromosome.

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ALLELE: → Alternative forms of a gene.

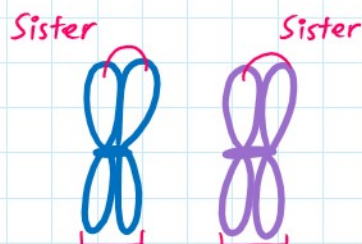
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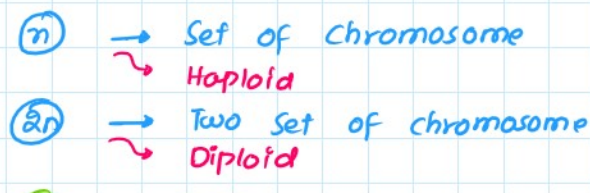
HOMOZYGOUS

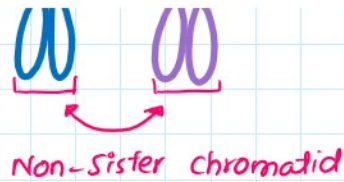
Both alleles are same.
AA, aa, BB, bb



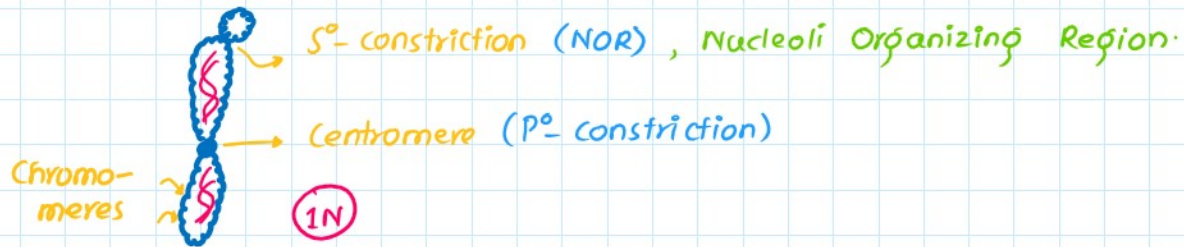
HETEROZYGOUS

Both alleles are different
Aa, Bb, Cc, Dd





- $(2n)$ → Two Set of chromosome
Diploid
- (n) → No. of DNA molecule
- $(2N)$ → 2 DNA molecule



GENE POOL : All genes of a population

GENOME : All the genetic material of an individual

GENOTYPE

Genetic combination of a gene.

→ Homozygous

AA, aa, BB

→ Heterozygous

Aa, Bb, Cc

PHENOTYPE (Expression)

Expression of a gene.

(AA) → Black*

(BB) → Blue*

KARYO-TYPE

Particular array of chromosomes

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