


### Genes and Chromosomes (Teacher Master)

**Mendel's Ideas about Genes**

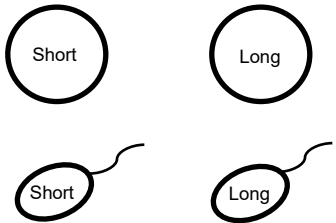
**Idea:** Individuals have two copies of a gene for each trait. Different forms of the same gene are called **alleles**. Genes control how their traits will appear.

**Picture:**



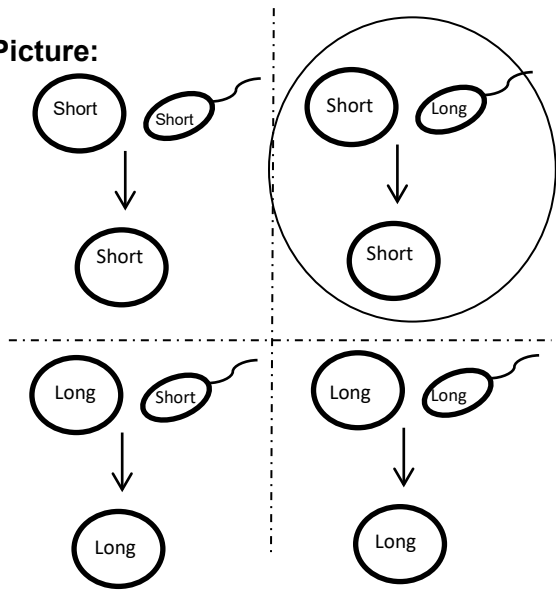
**Idea:** These two alleles separate when eggs and sperm are made. Each parent passes just one copy of a gene (or allele) to each offspring.

**Picture:**



**Idea:** Each offspring gets one allele from the father, and one allele from the mother.

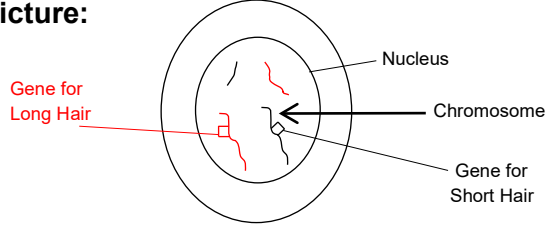
**Picture:**



**Sutton's Ideas about Chromosomes**

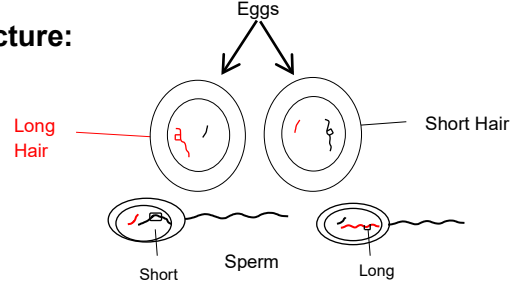
**Idea:** Individuals have two copies of each chromosome. Genes that control traits are found on chromosomes.

**Picture:**



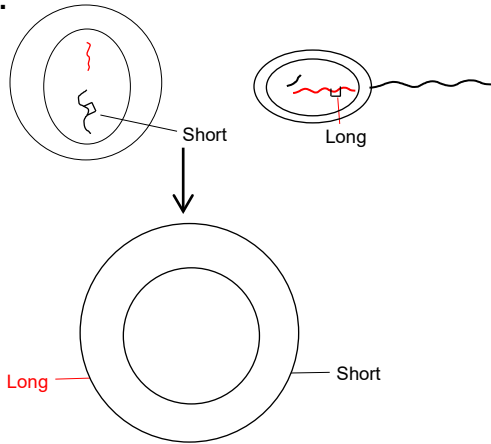
**Idea:** Chromosomes (and the genes on them) separate when eggs and sperm are made. Each parent passes one copy of each chromosome to each offspring.

**Picture:**



**Idea:** Each offspring gets one copy of a chromosome and its genes from the father and one copy from the mother.

**Picture:**



**\*Note:** Only one of the four examples from Mendel is shown here. Others would follow the same logic.