



Genes and Chromosomes (Teacher Master)

Mendel's Ideas about Genes

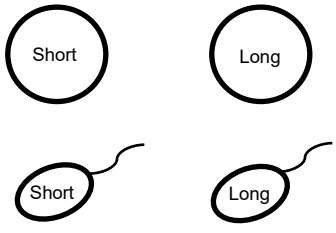
Idea: Individuals have two copies of a gene for each trait. Different forms of the same gene are called **alleles**. Genes control how their traits will appear.

Picture:

<p>How to Make Long Hair</p> 	<p>How to Make Short Hair</p> 
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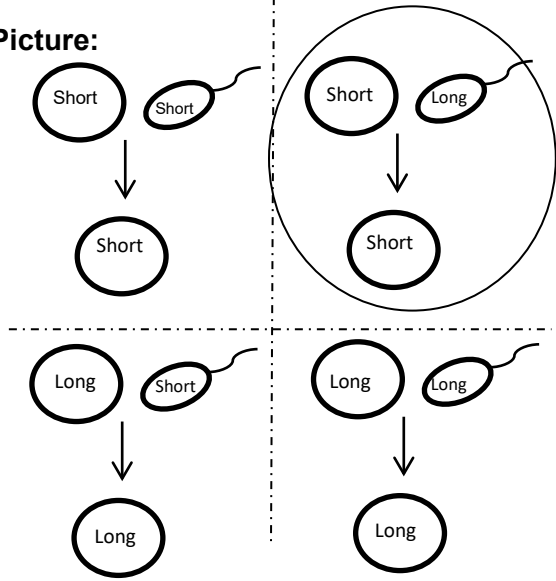
Idea: These two alleles separate when eggs and sperm are made. Each parent passes just one copy of a gene (or allele) to each offspring.

Picture:



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

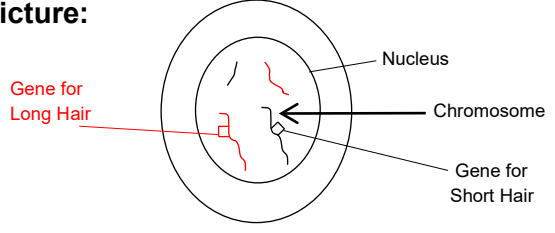
Picture:



Sutton's Ideas about Chromosomes

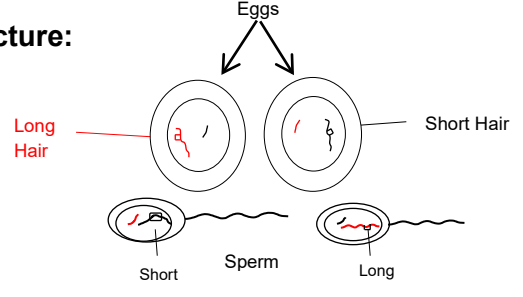
Idea: Individuals have two copies of each chromosome. Genes that control traits are found on chromosomes.

Picture:



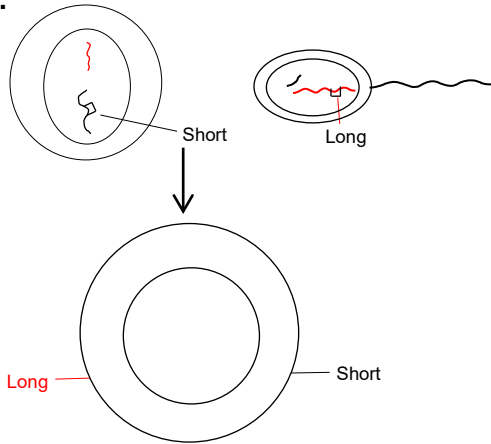
Idea: Chromosomes (and the genes on them) separate when eggs and sperm are made. Each parent passes one copy of each chromosome to each offspring.

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.