

BIOLOGY

Parallels between Mendel's Laws of Inheritance and the principles proposed by Sutton

Mendel's Laws of Inheritance	Behaviour of chromosomes during meiosis as observed by Sutton
<p>The Law of Segregation:</p> <p>Factors for the same characteristic occur in pairs in the individual and separate during gamete formation so that the gamete contains only one factor of each pair.</p>	<p>Genes are loci on chromosomes that contain one of two alleles of genetic information, determining the expression of a trait in the phenotype.</p> <p>The nucleus of cells contains two sets of chromosomes. During meiosis, the chromosomes separate into gametes so that each gamete contains just one set of chromosomes.</p>
<p>The Law of Independent Assortment:</p> <p>Factors are sorted randomly into gametes with no influence by the presence of other factors. Thus either factor of a pair can occur along with either factor of another pair in a genotype</p>	<p>Random assortment of the chromosomes into the gametes during meiosis</p> <p>However, alleles sort independently only when they are on different chromosomes</p>