

3-28-14 (continued)

Genes and Inheritance

- both parents contribute equally

Genes can control behavior

Most genes traits are controlled by a single gene.

Mendel used 7 characteristics and figured out that some were dominant and others were recessive.

3 ideas he used to explain genetics

1. each sperm and egg have 1 set of instruction

alleles → 2. offspring thus find themselves with 2 copies for any trait

3. copies came from the parents.

• Homozygous and heterozygous.

2 Laws of Inheritance.

Law of segregation: during production of gametes one of the two copies gets put into one cell.

Law of independent assortment: each gene is a random chance when segregating and is NOT influenced by other genes.

Vocab

Heredity: The passing of characteristics from parent to offspring.