Inheritance

Terms

1. Heredity -> Passing of genes
2. Variation -> Differences between individuals
3. Genetics study of heredity and variation

Chromosome

- Tightly packed in the nucleus
- Histones is called when they're winded up
- DNA coiled up around it
- Carrier of genes
- Prokaryote -> Exists in the cytoplasm of the nucleoid
- Eukaryote -> Exists in the nucleus

Homologous -> same origin and function

Homologous Chromosome

- Gametes -> Sex cells, haploid
- Somantic Cells -> body cells, diploid
- Diploid Number -> 46, represents # of somatic cells
- Haploid Number -> 23, # of gametes
- Homologous pairs must have paternal and maternal pair

Human Chromosomes

- 46 Chromosomes (Diploid)
- 23 Chromosomes (Haploid)
- 7 Groups (A-G)
- Genosomes -> sex chromosome (Female=XX, Male=XY)

Cell division

1. Mitosis -> division of body cells
2. Meiosis -> division of sex cells
3. Cancer -> uncontrolled cell growth

- Interphase
    - Growth

    - Dna replication
    - cell functions
    - Duplicates genetic material

4. Nucleus -> organelle, contains DNA
5. DNA -> holds genetic info

Genetic Inheritance

- Gregor Johanne Mendel -> Father of Genetics, Garden Pea
- Alleles -> pairs of genes
- Dominant -> expressed whether one or two are present
- Codominant -> Both are dominant, both are expressed
- Incomplete Dominance -> Introduces a third phenotype
- Recessive -> expressed only if there's two are present
- Geneotype -> Genetic Makeup
- Phenotype -> Physical