**Genetics #1 Vocabulary**

* **Please write each term and definition on flash cards. This is due tomorrow for a class work grade.**
* Due to the massive numbers of vocabulary terms, I am not assigning this for Extra Credit. However, the GOOD NEWS is…. that you will use this vocabulary for Genetics #1 and Genetics #2. That means you will not have a vocabulary assignment for Genetics #2! 😊

1. **Somatic Cells** - Also known as body cells, make up most of your body tissues and Organs.
2. **Gametes: Sex Cells** – Ova (egg) in females, spermatozoa (sperm) in males.
3. **Homologous chromosomes** – Two chromosomes, one from mom, one from dad, that have the same length general appearance, contain the same type of genes.
4. **Autosomes** – In humans they are chromosome pairs 1-22.
5. **Sex Chromosomes** -In Humans they are chromosome pair 23 and directly control the development of sexual characteristics.
6. **Sexual Reproduction** – Involves the fusion of two gametes that result in offspring that are a genetic mixture of both parents.
7. **Fertilization** – When sperm and egg fuse to form one nucleus.
8. **Diploid** – 2(n) A cell that has two copies of each chromosome, half from mom and half from dad.
9. **Haploid** – (n). A cell that has only one copy of each chromosome (a half set).
10. **Meiosis** – A form of nuclear division that divides a diploid cell into haploid cells.
11. **Gametogenesis** – Is the production of functioning gametes.
12. **Sperm** – Male gamete.
13. **Egg** – Female gamete.
14. **Polar Bodies** – Cells with little more than DNA that are eventually broken down.
15. **Traits** – Distinguishing characteristics that are inherited.
16. **Genetics** – The study of biological inheritance patterns and variation in organisms.
17. **Purebred** – A genetically uniform gene-line.
18. **Cross –** The mating of two organisms.
19. **Law of Segregation** – Mendel’s 1st law
    1. Organisms inherit two copies of each gene, one from each parent.
    2. Organisms donate only one copy of each gene in their gametes. Thus, the two copies of each gene segregate, or separate, during gamete formation.
20. **Gene** – A piece of DNA that provides a set of instruction to a cell to make a certain protein.
21. **Allele** – Any alternative forms for a gene that may occur at a specific locus.
22. **Homozygous** – Describes two of the same alleles at a specific locus.
23. **Heterozygous** - Describes two different alleles at a specific locus.
24. **Genome** – All of an organism’s genetic material.
25. **Genotype** – Refers to the genetic makeup of a specific set of genes.
26. **Phenotype** – Refers to the physical characteristics or traits.
27. **Dominant** – The allele that is expresses when two different alleles are present.
28. **Recessive** – The alleles that is only expressed when two copies of that allele are present.
29. **Punnett square** – A grid system for predicting all possible genotypes.
30. **Monohybrid Crosses** – Crosses that examine the inheritance on only one specific trait.
31. **Testcross** – A cross between an organism with an unknown genotype and an organism with the recessive phenotype.
32. **Dihybrid crosses** – Crosses that examine the inheritance of two different traits.
33. **Law of independent assortment** – States that allele pairs separate independent of each other during gamete formation or meiosis.
34. **Probability** – The likelihood that a particular event will happen.