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| **DNA, Mendel & Pedigrees** | **Punnett Squares** | **Cell Division** |
| Vocabulary: Define  *DNA*  *gene*  *chromosome*  *alleles*  *Gregor Mendel*  *dominant vs. recessive traits*  *phenotype & genotype*  *mutation* | Vocabulary: Define  *homozygous/purebred/true-breeding*  *heterozygous/hybrid*  *incomplete dominance*  *codominance*  *blood-type chart*  *sex-linked traits* | Vocabulary: Define  *asexual reproduction*  *sexual reproduction*  *mitosis*  *meiosis*  *sperm & egg*  *fertilization*  *gametes*  *cancer* |
| Questions:   1. What is the base pairing rule for DNA? 2. What is the difference between DNA, chromosomes, genes and alleles? 3. Gregor Mendel is known as the “\_\_\_\_\_\_\_\_ of Genetics.” 4. What is the difference between dominant and recessive traits? How are they represented? 5. Give an example of a phenotype & genotype: 6. Draw a pedigree chart for a hemophiliac carrier mother who has 1 out of 3 sons that are also affected. | Questions:   1. Label Homozygous (Ho) or Heterozygous (He):   *a. BB- b. Bb- c. bb-*   1. A hybrid red flower is crossed with a white flower.    1. Complete a Punnett square to show the possible outcomes.    2. List the possible genotypes and phenotype ratios: 2. A black rabbit is crossed with a white rabbit. Describe the phenotype of the offspring for each pattern of inheritance:    1. Incomplete dominance –    2. Codominance-     5. Blood Types: A= \_\_\_\_\_\_ or \_\_\_\_\_\_\_  B= \_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_ AB= \_\_\_\_\_\_\_ O=\_\_\_\_\_\_\_  6. Sex-Linked traits are carried on the \_\_\_\_\_\_\_ chromosomes. | Questions:   1. List and define 2 types of asexual reproduction, and give an example organism for each. 2. What is the advantage of sexual reproduction? 3. What are the similarities and differences among mitosis and meiosis? 4. How does the number of chromosomes differ in body cells compared to sex cells? |