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| **Mechanisms of Evolution** | Date: |
|  | Per: |
| Evolution is | For Darwin (1859): is a gradual change for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ traits in a population across generations, eventually generating \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over time.  For the Modern Evolutionary Synthesis(early 20th century)  -is a change in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ frequency over time. |
| Population Genetic Terms   1. Population 2. Species 3. Gene Pool 4. Allele 5. Homozygous 6. Heterozygous | alternate form of a gene  identical alleles for a given trait(dom or rec) >1 diff alleles for a given trait. |
| **Genetic Diversity:**  *Sources of diversity* | 1. These are the  2. \_\_\_\_ main  3. of Evolution  4.  5.  6.  All can \_\_\_\_\_\_\_\_\_\_\_\_\_\_ a change in allele frequency but to be evolution the change must be in the \_\_\_\_\_\_\_\_\_. |
| 1. **Natural Selection**   (Survival or the  \_\_\_\_\_\_\_\_\_\_)  *Produces change in population like:* | 1. Adaptation 2. Behavior 3. Extinction 4. Speciation |
| 1. **Genetic Drift**   The founder effect:  bottleneck effect: | -\_\_\_\_\_\_\_\_\_\_ change in allele frequencies from generation to generation  -also called \_\_\_\_\_\_\_\_\_\_\_\_ error or \_\_\_\_\_\_\_\_ luck  when a \_\_\_\_\_\_\_ individuals immigrate to a new area and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a new \_\_\_\_\_\_\_\_\_\_\_\_\_\_  The smaller the new population the more likely the \_\_\_\_\_\_\_\_\_\_ frequencies will differ from the \_\_\_\_\_\_\_\_  population  sudden \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the number of alleles in a population.  -causes \_\_\_\_\_\_\_\_\_\_\_\_\_ in allele frequencies. |
| 1. **Gene Flow** | -\_\_\_\_\_\_\_\_\_\_\_\_\_of alleles from one population to another.  -Occurs when individuals \_\_\_\_\_\_\_\_\_\_ one population, join another and \_\_\_\_\_\_\_\_\_\_\_. Ex: \_\_\_\_\_\_\_\_\_\_\_  -Gene flow can also be called gene \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Ex: |
| 1. **Genetic Recombination** | : \_\_\_\_\_\_\_ genes and \_\_\_\_\_\_ organisms can created thru genetic recombination  -\_\_\_\_\_\_\_\_\_\_\_\_\_\_: crossing over  -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ assortment  -Polyploidy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **5. Mutations** | -Most evolutionary forces (selection, drift, gene flow) cause a \_\_\_\_\_\_\_\_\_\_\_\_ of diversity over time.  -Mutations \_\_\_\_\_\_\_\_\_ the genetic diversity. |
| **6.SexualReproduction** | * Mating changes allelic frequencies these ways:  1. Inbreeding 2. Sexual Selection 3. Artificial Selection |