Learning Targets:

Genetics, Darwin, and Natural Selection

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| I can: | Vocabulary | |
| 1. Describe how different environments support different varieties of organisms. 2. Explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb. 3. Identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as finches in the Galapagos Islands and domestic animals. 4. Explain the levels of organization in plants and animals. 5. Define heredity as the passage of genetic instructions from one generation to the next generation. 6. Compare the results of uniform or diverse offspring from asexual reproduction or sexual reproduction. 7. Explain that inherited traits of individuals are governed by the genetic material found in the genes, which are within chromosomes in the nucleus of a cell.   **TEKS**  7.10 The student knows that there is a relationship between organisms and the environment.  7.11 The students knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations.  7.12 The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function.  7.13 The student knows that living organisms must be able to maintain balance in stable internal conditions in response to external and internal stimuli.  7.14 The student knows that reproduction is a  characteristic of living organisms and that the  instructions for traits are governed in the genetic  material. | * heredity * trait * genetics * DNA * RNA * allele * dominant allele * recessive allele * gene * asexual reproduction * sexual reproduction * cell cycle * mitosis * interphase * prophase * metaphase * anaphase * telophase * cytokinesis * centromere * centriole * spindle fiber * chromatin * chromosome * mutation * probability * meiosis * Gregor Mendel * homozygous * heterozygous * hybrid * purebred * ancestor | * codominance * incomplete dominance * Punnett square * genotype * phenotype * multiple alleles * sex cell * sperm * egg * sex-linked * carrier * nitrogen base * adenine * thymine * guanine * cytosine * nucleotide * double helix * messenger RNA * transfer RNA * amino acid * protein synthesis * ribosome * proteins * pedigree * genetic disorder * genetic engineering * selective breeding * clone/cloning * Charles Darwin * Galapagos Islands |
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