

## **Biology K Lesson Plans Unit 4 19-20**

### UNIT OBJECTIVES: TEKS

**Teachers:** Amanda Jenkins, Kristi Coleman, Kim Morgan, Kristin Boggs, Mary Scorsone, DeAnna Appling, Sean Brooks and Jonathon Cummings

As organisms reproduce (asexually or sexually), these variations in genes are passed onto future generations. We see more variation in the offspring from sexual reproduction because of the genetic contributions of more than one parent. Meiosis produces gametes which allow each parent to contribute half of the genes of the offspring as well as shuffles genes. Genetics is the study of genes and variation in inherited traits. Heredity offers an explanation for the variation in these inherited characteristics. Trait expression is influenced by both genes and the environment, often leading to complex and unpredictable patterns of inheritance.

The patterns of inheritance in sexual reproduction are described as either Mendelian or Non-Mendelian inheritance. Mendelian genetics gives us a model to understand the basics of inheritance and allows predictions of what may happen when two organisms with known genotypes produce offspring. In this inheritance pattern, alleles are considered dominant if they are always observed in the phenotype and recessive if they only appear when an individual inherits two copies of the recessive allele. For most traits, Mendelian inheritance patterns do not apply. The big picture of genetics is much more complicated than Mendelian inheritance implies. These other inheritance patterns are considered non-Mendelian because they don't follow one or more laws of Mendelian inheritance.

TEKS:

(6)The student knows the mechanisms of genetics such as the role of nucleic acids and the principles of Mendelian and non-Mendelian genetics

**6.F** predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses, and non-Mendelian inheritance

**6.E** identify and illustrate changes in DNA and ~~evaluate~~ the significance of these changes

### Unit 3 Calendar: October/ November

Monday	Tuesday	Wednesday	Thursday	Friday
14	15	16	17	18 <b>END OF 9 WEEKS GRADES DUE</b>  RE-DO Test
21 Meiosis notes  Comparing Cell Cycle and Meiosis ws	22 What's the Diff? ws  Mitosis vs. Meiosis graph WS	23  Genetics Notes and Monohybrids (start packet)	24  Gene Baby	25  Finish monohybrids and Incomplete Dominance (practice packet)
28  Codominance and blood typing (practice packet)	29  <b>Quiz 1: Monohybrids and Incomplete Dominance</b>  Sex Linked Traits (practice packet)  <b>Packet Check (DG1) Mono-Codominance</b>	30  Dihybrid crosses (practice packet)	31  <b>Quiz 2: Codominance and Sex-Linked Traits (DG)</b>  <b>Finish packets (DG2) Sex-linked &amp; Dihybrid</b>	1  <b>Genetics practice problems (AS - DOES NOT GO HOME)</b>
4 Pedigree Notes  Pedigree WS	5  NO STUDENTS	6  Review	7  <b>Unit 4 Test</b>	8

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