Biology Lesson Plans

Teacher : JOHNSTON, HARDMAN, HAWTHORNE, CANNON, HAMILTON, CARMACK

Course/ Subject: Biology

Date of Instruction: 4/24-25/23

Opening (I Do)

An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson.

TKES 1, 2, 3,4,5, 8,10

SB3. Obtain, evaluate, and communicate information to analyze how biological traits are passed on to successive generations.

a. **Use Mendel's laws (segregation and independent assortment) to ask questions and define problems that can explain the role of meiosis in reproductive variability.**
b. **Use mathematical models to predict and explain patterns of inheritance. (Clarification statement: Students should be able to use Punnett squares (monohybrid and dihybrid crosses) and/or rules of probability, to analyze the following inheritance patterns: dominance, codominance, incomplete dominance.)**

Learning Target:

Using Mendel's laws, explain the role of meiosis in reproductive variability.

Success Criteria:

- **I can describe Mendel's studies and conclusions about inheritance**
- **I can describe what happens during segregation**
- **I can explain how geneticists use the principles of probability to make Punnett squares**
- **I can explain the principle of independent assortment**
- **I know who the father of genetics is.**
- **I can identify dominant & recessive alleles.**
- **I can identify homozygous & heterozygous alleles.**
- **I can give examples of genotypes & phenotypes**
- **I can construct Punnett squares for: Monohybrid crosses and sex linked traits**
- **I can recall the phenotypic ratio for a dihybrid cross.**
- **Given the genotype, I can determine the phenotype**
- **Given the genotype, I can determine the phenotype**

Introduction/Connection:

	DIRECT INSTRUCTION: **Incomplete and CoDominance slides** **Practice** **Oompah Loompah genetics**
Work Period (We Do, You Do) Students learning by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** **Incomplete and codominance guided notes** **Practice** **LAB: The Variations of the human face** **Oompah Loompah genetics**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: **Incomplete and codominance guided notes** **Practice** **Oompah Loompah genetics**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** **Turn practice**