

Introduction of Punnett Squares Lesson

Matthew Gasbarre
CI 495C Lesson #4
Date Taught: 4-6-06

Grade Level: 8th Grade Life Science Class

Topic: Introduction of how genotypes and phenotypes can be determined through the use of Punnett Squares.

Objectives:

1. Students should become familiar with using a Punnett Square to determine offspring genotypes and phenotypes.
2. Students should understand the differences between genotypes and phenotypes
3. Students should be able to calculate percents of different genotype combinations from the use of a Punnett Square.
4. Students should recognize the terms of dominance and recessive as they are concerned with the use of a Punnett Square.

PA Standard: 3.3.7 C. Know that every organism has a set of genetic instructions that determines its inherited traits.

- Identify and explain inheritable characteristics.
- Identify that the gene is the basic unit of inheritance.
- Identify basic patterns of inheritance (e.g., dominance, recessive, codominance).

PA Anchor Assessment Standard:

S8.B.2.2.1 Identify and explain differences between inherited and acquired traits.

S8.B.2.2.2 Recognize that the gene is the basic unit of inheritance, that there are dominant and recessive genes, that traits are inherited.

Body of Lessons:

Materials Needed: Learning Guide, pencils, papers, "Genetics and Probabilities" Worksheet.
(Estimate for 35 students and a 46 minute class)

1. Characteristics of Genetics (5-8 minutes)

- The teacher will go over the "Principle of Genetics" part on the Learning Guide. (This can be seen at the end of this lesson plan.
- Teacher will prompt students about past terms that were used today to see if they understood terms such as dominant, recessive, incomplete dominance, etc.