Chapter 3: Genetics: The Science of Heredity

The students will continue in the textbook: Cells and Heredity, Prentice Hall Science Explorer, and move into Chapter 3: Genetics: The Science of Heredity. This chapter deals with topics such as Mendel's Work, Integrating Mathematics: Probability and Heredity, The Cell and Inheritance, and The DNA Connection.

Reading notes and outlines will be given to students in order to foster an understanding of the printed materials. We will discuss each section, in detail, during subsequent class periods. Many assignments dealing with Punnett squares…genotypes and phenotypes…will be introduced and completed. Graded assessments for each section of the chapter will follow class discussions.

The students will have several labs and/or activities that deal with Taking a Class Survey…traits controlled by dominant alleles vs. traits controlled by recessive alleles; What's the Chance?...coin tosses; Math Analyzing Data…What are the Genotypes?; Make the Right Call…predicting the possible results of genetic crosses; and Can You Crack the Code?...using Morse Code to solve a problem.

A quiz or two might be given to the students to keep them "on their toes."

The Chapter Project will pertain to the exploration of how traits are passed from parents to offspring by creating a family of "paper pets." Students will work with a partner to create a "family" based on the toss of a coin to determine the characteristics of the 6 offspring between the 2 students. Each student will also create a "parent" for the project. This project will be done in class, by the students, during several class periods.

At the end of the chapter, students will be given a comprehensive Study Guide that we will discuss in class. A Chapter Test will conclude this particular course of study.