Whitney Patton

Assignment 3

Lesson Plan

(6th Grade Life Science)

Standards (State of Nevada):

* L8A: Students understand the role of genetic information in the continuation of a species.
* L8A1: Students know that heredity is the passing of genetic instructions from one generation to the next.
* L8A3: Students know organisms can be bred for specific characteristics.

Learning Objectives:

1. Students will describe heredity as the passing of traits from parents to offspring.
2. Students will explain that traits are determined by an organism’s genetic material.
3. Students will discuss how the knowledge of heredity is used to breed organisms with desired characteristics.
4. Students will discuss the development of the study of genetics.

Learning Strategies (Incorporating the 6E’s):

* Engage: In order to incorporate this point, I will introduce the topic for the lesson by polling the class to see which students (if any) have certain genetic traits (widow’s peak, hitchhiker’s thumb, etc.). After I have gathered data from the class, I will have students work in groups to determine the possible genotypes of their group members, in regards to the traits we discussed.
* Explore: In order to incorporate this point, I will require students to conduct independent research on one (or one type) of genetic mutations. They will be responsible for gathering information on their chosen topics, creating an appropriate visual, and presenting what they have learned to their peers.
* Explain: In order to incorporate this point, I will have students present their research as described above. Also, students will have the opportunity to “explain” what they have learned when producing, completing, and submitting their concept map assignment.
* Elaborate: In order to address this point, students are required to work directly on the given assignment, which, in this case, is producing a concept map that organizes all of the information they have learned about genetics.
* Evaluate: In order to evaluate the learning that has occurred, I will grade students’ concept map assignment according to the rubric provided below.
* Extend: This point is incorporated via the “explore” assignment listed above. This assignment allows students the chance to go beyond the classroom, and find information on something of their choice.

Assessment Tool (Rubric):

A. Concepts and Terminology:

* 3 points Shows an understanding of the topic’s concepts and principles and uses appropriate terminology and notations
* 2 points Makes some mistakes in terminology or shows a few misunderstandings of concepts
* 1 point Makes many mistakes in terminology and shows a lack of understanding of many concepts
* 0 points Shows no understanding of the topic’s concepts and principles

B. Knowledge of the Relationships among Concepts:

* 3 points Identifies all the important concepts and shows an understanding of the relationships among them
* 2 points Identifies important concepts but makes some incorrect connections
* 1 point Makes many incorrect connections
* 0 points Fails to use any appropriate concepts or appropriate connections

C. Ability to Communicate through Concept Maps:

* 3 points Constructs an appropriate and complete concept map and includes examples; places concepts in an appropriate hierarchy and places linking words on all connections; produces a concept map that is easy to interpret
* 2 points Places almost all concepts in an appropriate hierarchy and assigns linking words to most connections; produces a concept map that is easy to interpret
* 1 point Places only a few concepts in an appropriate hierarchy or uses only a few linking words; produces a concept map that is difficult to interpret
* 0 points Produces a final product that is not a concept map

\*\*Please see the other attachment for an example of a student product (concept map).