

!0th Grade Biology Final Project: “Making the Connection”

Final Project due: Wednesday, May 16, 2007

Purpose: To determine each student’s understanding of basic concepts in biology and their connection to each other and everyday life.

Directions:

Each student will be required to create a concept map illustrating the relationship between the “10th Grade Biology Big Ideas.” Each Big Idea must include:

1. brief description of topic
 2. connection to other topics and Biology
 3. how would this topic affect you and your everyday life
- all descriptions must include text, however, you are not limited to just text, you include visuals (i.e. models)

The concept map must be displayed on a 3-sided display board. Students can use props and 3D models in addition to the display board. You must submit a draft/ blue print of your visual by **Wednesday, May 9, 2007**; Mr. Kittel or Ms. Brown must approve your draft before final construction.

Below you find a list of ALL the Big Ideas that must be included in your visual. Feel free to be creative in explaining each Big Idea.

Big Ideas:

- ❑ Nature of Science and Evolution
 1. Scientific Method
 - Experimental Design
 - Scientific Understanding
 2. Natural Selection
 3. Evidence and Diversity
- ❑ Biological Chemistry
 1. Metabolism
 2. Energy/ Photorespiration
 3. Cell Structure and Function
 4. Active/ Passive Transport
 5. Homeostasis
- ❑ Genetics and Biotechnology
 1. Genetic Information
 2. Patterns of Inheritance
 3. Variation
 4. Biotechnology

How will you be graded:

The top 25 projects will be selected by Mr. Kittel and Ms. Brown and submitted for final judgment by GK12 staff and fellows. The top 3 identified by the judges will be rewarded for their efforts.

1st place: \$100 cash + gift bag
2nd place: \$50 cash + gift bag
3rd place: \$25 cash + gift bag