TITLE:
Postlab Questions

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DCPS STANDARDS:

   7.4.3 Explain that in those cells that contain a nucleus (eukaryotic plant and animal cells), the nucleus is the main repository for genetic information (DNA)

   7.4.4 Explain that prokaryotic cells differ from eukaryotic cells most prominently in that they don't have a membrane-bound nucleus. Know their genetic information is in a threadlike mass, often a very long loop of DNA. Mitochondria, Nucleus.

GOALS:

   Activity One:

   1. Scholars will discuss why did they get a large amount of DNA in the strawberry experiment? If so, why do you think there were different amount of DNA in the experiment? If not, what do you think went right or wrong?.
   2. Scholars will understand what they know of chemistry, what improvements do you think we could have done on this lab? (There is no right or wrong answer for this question, so use your creativity and intelligence for an answer).
   3. Scholars will understand the that this method would work well for other foods.

OBJECTIVES:

   Activity One:
         1. Scholars will demonstrate the DNA extracting experiment.
         2. Scholars will predict what others foods would work well for other foods.

   Activity Two:
         1.   Scholars will DNA extraction..

INTRODUCTION: (GLOBAL PREREQUISITE KNOWLEDGE)

ESSENTIAL QUESTIONS:

   • Activity One: What are DNA and how do we inherit them?
   • Activity Two: How do we distinguish nuclear DNA from Mitochondrial DNA?

GLOBAL RATIONALE:

Understanding the mechanism of DNA and their relationship to genetics.

RESEARCH ACTIVITIES:

- **Activity One: DNA extraction**
- **Activity Two: Determining different DNA's**

GLOBAL EVALUATION AND ASSESMENT:

- Students should explain the relationship between nuclear DNA from Mitochondrial DNA.
- Students should explain the genetic basis mother and father DNA fro genetic identification.

SUGGESTED RESOURCES AND WEBSITES AND MEDIA:

http://www.fi.edu/learn/DNA.html
http://www.biology.arizona.edu/Human_Bio/problem_sets/blood_types/Intro.html