

## Thursday, January 30, 2014- Friday, January 31, 2014

Unit: Genetics

Lesson 11

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### Big Ideas

Genetic information is passed from parent to offspring.

Living things change over time: Evolution

Living things are alike yet different

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### Objectives

1. Students will be able to describe how Charles Darwin made observations to develop his hypothesis of evolution.
2. Students will be able to understand that evolution by natural selection is at the foundation of biological science.
3. Students will be able to use content vocabulary to understand text.

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### Materials

Science Notebook

Science Book

I can statements

3 x 5 Station activities

3 iPads

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### Procedures/Strategy

1. Students will enter the classroom and add the unit I can statements to their notebooks. Students will then be allowed 2-3 minutes to add any information they already know about evolution to their I can statements.
2. Students will add the daily I can statement to their notebook and the teacher will go over the daily objectives and outline the unit.
3. Activation of prior knowledge (Engage):
  - Reading of Darwin's entry from the Origin of Species and class discussion/introduction.
  - Transition to station activity

4. 5 stations on Darwin (Explore/ Explain/ Elaborate)
  1. Compare Land Animal to Galapagos Animal (Read Page 284)
    - Pick one sheet and use the associated pictures.
    - Copy the chart into your notebook and complete the chart for the two organisms you chose to compare.
    - Answer the corresponding question in your notebook.
  2. Read about Darwin's Voyage

Answer questions in your science notebook:

    - What did Darwin study on his travels?
    - Using the context clues in the article, how would you define the word species?
      - Now checking your book on page 283: What is the definition of a species?
    - What did Darwin conclude about the species he saw? What was his hypothesis about species?
    - How was he able to conclude these things?
  3. Select one of the "Letters from the Galapagos" and read then discuss/summarize with partners.
    - Complete reading and summarize the diary entry for your partners.
    - What did each character observe while they were on the Islands?
    - What does this tell you about the landscape of the Islands?
  4. Watch the video on Theory versus Hypothesis  
<http://www.youtube.com/watch?v=R56gUr-Nmgg>
    - Paste the lyrics in your notebook
    - Answer the question... What is the difference between theory and hypothesis?
  5. Read Artificial Selection Article
    - Discuss with your partner to answer the question: What is artificial selection? How does artificial selection support Darwin's hypothesis?

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### Content Vocabulary

Species

Evolution

Variation

Fossil

Scientific Theory

Adaptation

Natural Selection

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## Evaluation

### 1. Formative

Notebook checks, discussion feed-back, thumbs up/thumbs down, (entrance slip next class)

### 2. Summative

N/A

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## Extensions/Next Steps

- Review in next class and continue on
- Next Lesson: Natural Selection Activity
- Homework: Read page 283-287 and complete the text boxes. Vocabulary Due next Friday.