

# Wednesday, January 15, 2014

Unit: Genetics

Lesson 3

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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 explain the experiments of Redi and Pasteur to peers through a re-teaching activity.
2. Students will be able to connect scientific vocabulary to the text.

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## Materials

Science Notebooks

Science Books

Link to comic for review

[http://i.bp.blogspot.com/\\_ACaDFokiT5I/SsEfa9Cmf2I/AAAAAAAAAGI/JYRpY2sdYyQ/s1600-h/cells.jpg](http://i.bp.blogspot.com/_ACaDFokiT5I/SsEfa9Cmf2I/AAAAAAAAAGI/JYRpY2sdYyQ/s1600-h/cells.jpg)

Link to Pasteur Video

<http://www.biography.com/people/louis-pasteur-9434402>

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## Procedures/Strategy

1. Students will enter the classroom and add the I can statements into their notebooks.  
Teacher will go over the I can statements as the objectives of the day.
2. Activation of prior knowledge (Engage):
  - Display cartoon on the screen and read aloud to students.
  - Recall the 6 characteristics of living things with special focus on defining the following words as a group:
    - Multicellular, unicellular, metabolism, stimulus, response, development, asexual and sexual reproduction.

- Introduce the history of scientists investigating where life comes from and how life began.
  - Preview the concept of controlled experiment.
3. Two halves of the class combine to compile the important information from the Redi and Pasteur Experiments (Explore)
    - Students must identify the...
    - Hypothesis of each scientist
    - Controlled variable
    - Manipulated variable
    - Result of each experiment.
  4. Students present the information to their classmates adding their notes in their graphic organizer in Output #2. (Explain)
  5. Classroom discussion about revolutionary ideas in science. Explain that disproving spontaneous generation was as important as learning the world is no longer flat, the Earth is not the center of the universe, etc. (Explore)
  6. Watch video on Pasteur (Explore)
    - <http://www.biography.com/people/louis-pasteur-9434402>
  7. Free-write answering the following questions in your Output #2 (Explore/Evaluate)
    - How did Pasteur change the field of science with his experiments disproving the idea of spontaneous generation?
    - Why do you think it is so difficult to let go of common ideas and practices although science may prove them incorrect?

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## Content Vocabulary

Spontaneous generation  
Controlled experiment

Autotrophs  
Heterotrophs

Homeostasis

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## Evaluation

- I. Formative
  - Feed-back from discussion about Redi and Pasteur
  - Quick check of the free-write activity and share outs in class.
  - Thumbs up/Thumbs down check of understanding on Redi and Pasteur and spontaneous generation.

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## Extensions/Next Steps

- Quick review of what it means to be living and disproving the idea of spontaneous generation.
- Next Lesson: Classifying life.
- Homework: Complete Text boxes for Lesson 1, vocabulary in Science Notebook Due Friday.