

Tuesday, January 14, 2014

Unit: Genetics

Lesson 2

Big Ideas

Genetic information is passed from parent to offspring.

Living things change over time: Evolution.

Living things are alike yet different.

Objectives

1. Students will be able to explain the characteristics of all living things to each other and the class through a jigsaw activity.
2. Students will be able to understand the importance of Redi and Pasteur's experiments through reading.
3. Students will be able to use content specific vocabulary to understand text.

Materials

Science Notebooks

Science Books

Procedures/Strategy

1. Students will enter the classroom and add the I can statements to their notebooks. Teacher will go over the I can statements as the objectives of the day.
2. Activation of prior knowledge (Engagement):
 - Teacher will ask students what it means to be living
 - How do we know something is living?
 - Do living things have things in common?
 - Why is my cell phone not living?
3. Students will be instructed on the creation of a graphic organizer (see science notebook Output #2)
4. Jigsaw Reading Activity (Explore/Explain)

- The class will be divided in half and students will be divided into groups with their lab partner to read the excerpts I the book on the 6 characteristics of living things.
 - Each group reads about 1 characteristic with a total of 2 groups (4 people reading about the same characteristic).
- Students will convene as a half of the classroom to discuss the characteristics that their read about, and to present their information to each other.
- Teacher will parallel teach each half of the class during this time.
- Critical Thinking: Pose the questions (Elaborate)
 - Which of the 6 characteristics is the most important?
 - Do you think there is there a character that all living things developed first (i.e. Chicken or Egg)? (Sequential versus interconnected web?)

Content Vocabulary

Organism	Metabolism	Asexual reproduction
Cell	Stimulus	Sexual reproduction
Unicellular	Response	
Multicellular	Development	

Evaluation

I. Formative

- Feedback from discussion and Jigsaw activity
- Quick check of the graphic organizer in student notebooks

Extensions/Next Steps

- Quick review of 6 characteristics in next class, with clear focus on content vocabulary through defining the words multicellular, unicellular, metabolism, stimulus, response, development, asexual and sexual reproduction as a group.
- Next Lesson: Redi and Pasteur's experiments connecting to the definition of what it means to be living.
- Homework: Read Redi or Pasteur's experiments (half of class assigned one reading, half the other), vocabulary in Science Notebook Due Friday.