

Tuesday, February 11, 2014

Unit: Genetics

Lesson 18

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 use their knowledge of evolution by natural selection, artificial selection, adaptations, gradualism and punctuated equilibrium, to complete a quiz.
2. Students will be able to use context vocabulary to read the chapter text introducing the idea of genetics.
3. Students will be able to describe Gregor Mendel as the father of genetics and understand his work with peas plants.

Materials

Science Notebooks

Science books

Evolution Quiz copies

I Can Statements for Genetics

Guided notes

Powerpoint

PTC paper

Procedures/Strategy

1. Students will enter the classroom and receive instructions on completing the quiz.
 - Students will take the quiz and then be allowed to read Chapter 9
2. After the quiz students will receive the following items to go in their science notebooks
 - I can statements
 - Guided notes
3. Activation of prior knowledge (Engage): Next Steps:

- Think/Pair/Share:
 - We know now how organisms change over time, and the rates by which they change. But how is this change possible? Where does variation come from? Why don't you look just like your parents?
 - Students lead to consider these questions in pair groups.
- 4. Explore: Dominant Traits vs. Recessive Traits
 - Students are shown various pictures of common traits
 - Instructed to discuss with their partner why there are two forms of these traits?
 - Why is this important? What does this mean for variation?
 - What do you know about dominant versus recessive?
- 5. Explain: Guided notes in chalk talk about Mendel
- 6. Elaborate: PTC Activity

Content Vocabulary

Genetics	Purebred	Trait
Dominant Allele	Hybrid	Allele
Recessive Allele	Gene	
Heredity	Fertilization	

Evaluation

1. Formative
 - Discussion (observe/listen)
2. Summative
 - Quiz Today

Extensions/Next Steps

- If students are struggling in the transition to genetics, reading for homework and vocabulary will help. Continuation of lecture tomorrow.
- Next Lesson: Continuation of Chalk Talk
- Homework: Lesson 1 Text boxes and vocabulary (p. 310-315).