Urban Ecology: Introduction to the Scientific Method

Brooklyn College City as a Lab GK-12 Program
Academy for Urban Planning
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Time: 40 min
Hands On? Yes; Internet? No

Standards Met: ***Living Environment: Standard 4; PI 5.1, 6.3c.7.1 ; Earth Science: Standards: 6; Key Idea 4,5,6 Standard 7: Key Idea 1,2. Standard 4, PI 2.1***

Title: The Scientific Method: It's Egg-Celent
Grade and Subject: 11th (Urban Ecology)
Number of Days for Completion: 1
Overreaching Goals/ Outcomes: Introduction to the Scientific Method
Learning Goals/Outcomes: SWBAT- Apply the scientific method to a hands on activity to answer questions and apply method to future project aims.
Materials: 1 dozen hard boiled eggs, 1 dozen raw eggs, 2 bags of candy eggs, 2 boxes of tissues, 2 bowls, Egg Test worksheet
Introduction: This hands on lesson uses real life everyday props to introduce the scientific method. Students will make a hypothesis, test, record results and make conclusions. Students will determine which eggs are hard-boiled and raw.
Instruction/Direct Experience: Students will be asked if they've heard of the scientific method and have used it in other classes. They will be broken into groups of 3-4 students, given eggs and worksheet. Each group will perform 5 tests (see worksheet), for each test they will write a hypothesis, perform test, record results, and conclusions.
Independent Activities: NA
Assessment: Students will perform a final test of breaking their eggs in front of the class. They will first state their hypothesis and which tests supported/rejected their hypothesis. Students that completed the assignment will be given chocolate candy eggs and asked to repeat the task using the scientific method.
Connections: Each group will be asked to record based on the tests completed which egg they think is raw and why? They will also be asked which test was most helpful in allowing the group to reach their conclusion and why?