

Project FOCUS
Best Lesson
SEVENTH GRADE

Title of Lesson: Natural Selection Stimulation (A Lesson on Evolution)

Unit Title: Evolution

Performance Standards(s) Covered:

S7L5. Students will examine the evolution of living organisms through inherited characteristics that promote survival of organisms and the survival of successive generations of their offspring.

b. Describe ways in which species on earth have evolved due to natural selection.

Essential Question: What is natural selection and how does it contribute to evolution?

Objective: To highlight the importance of natural selection in the concept of evolution.

Key Words and Terms: Evolution, Natural Selection, Darwinism

Learning Activity

Abstract: This lesson is about the role natural selection plays in the concept of evolution.

Materials Needed:

Plastic trays

Small plastic cups

Beans

Clothespins

Forceps or Tweezers

Plastic spoons

Paper Clips

Procedure:

1. Before beginning the activity explain to the students what natural selection is and how it contributes to the evolution of living organisms.
2. Once the explanation of natural selection is completed organized the students into groups that contain 4-5 people and assign them to a table in the classroom.
3. Place a tray of beans as well as a combination of the utensils/tools (clothespins, forceps/tweezers, paper clips, and plastic spoons) in the middle of each group's table.
4. Give each student their own plastic cup.
5. As you place the plastic tray with the beans and tools at each table tell the students at each group to pick the tool on the tray that they want or like the best.
6. Once the students pick out their tool explain to them that they will have one minute to get 20 beans in their plastic cup. The students who cannot complete this task will be eliminated and receive the same tool of a person in their group who had "survived"/got 20 beans in their cup.

7. Repeat the activity again and give the students 45 seconds to get 20 beans in their plastic cups. The student who cannot complete task will be eliminated and be given the same tool of a person in their group who had survived.
8. At the end of the activity ask the students to observe the other students in the classroom. Precede to then ask the students to tell you what they notice about the tools that are in their other classmates' hands. The students should observe that there are certain tools more present than others.
9. Explain to the students that the dominant tools in the classroom is an example of natural selection and how certain tools/certain traits allow specific living organisms to thrive/evolve for longer periods of time.

Safety Concerns:

- Make sure that the students to not ingest the beans or use them in any appropriate manner.

Notes and Tips:

- To modify the lesson I would start the activity emphasize to the students that they must use their tools in the appropriate way that they are used in daily life. This is imperative to do in order to prevent any student from “cheating”. It will allow the students to honestly get the correct amount of beans in their plastic cup as well as better reinforce the main goal of the lesson.

References:

http://www.biologycorner.com/worksheets/naturalselection.html#.Uz7CZ97D_IW

PowerPoint presentation:

<https://onedrive.live.com/redirect?resid=FEB293AA4E0D4981%21167>