

Project FOCUS
Best Lessons
MIDDLE SCHOOL

Title of Lesson: The Circle of Life: Soil Profiles

Theme: Earth/Space Science

Unit Number: 1 **Unit Title:** The Earth's Surface

Performance Standard(s) Covered (enter code):

S6E5. Students will investigate the scientific view of how the earth's surface is formed.

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

This lesson covers soil profiles and how they can change in depth or nutrient composition based on changes in vegetation and even animal activity. It is important the students already have an understanding of soil profiles and the vocabulary associated with them. This lesson is more of a review.

Learning Activity (description in steps)

Abstract (limit 100 characters): This lesson is designed to look at a single habitat that has been drastically changed. By using the scenes from "The Lion King" students can see how habitats can change in composition of vegetation which can change the depth of the layers in the soil profile. At the end of this lesson the students should have a clear understanding of how vegetation adds nutrients and volume to the top soil profile. Some other areas this lesson can be expanded to is fossils.

Details: Have the students in desks throughout the room and stress to them the importance of raising their hand when answering. Ask the students to if they have seen the movie "The Lion King" and if any have not include a brief synopses of what happens in the movie. Have a student read the standard and then watch the clip from "The Lion King" when Mufasa tells Simba about the circle of life. After the clip, ask the students what Mufasa said that might have something to do with the soil profile from the scene. Have them draw the line where the top layer ends and make sure they understand that this line is thick. Have the students watch the scene when Simba returns and the land is barren. Now have the students draw a new line for the top layer, either thicker, thinner or the same. Make sure the students understand that the layer got thinner due to the loss in vegetation and animals to add to the nutrients and volume.

Materials Needed (type and quantity): YouTube links to videos or actual movie.
SmartBoard/chalkboard to allow them to draw the line for the soil profile.

Notes and Tips (general changes, alternative methods, cautions): If I were to do this again I would have included a word splash at the beginning of the lesson. During this activity I would have the students yell out or come up to the board to write down vocabulary that pertains to soil profiles (humus, horizons, decomposition, etc). I think this would help in getting them focused on the topic and thinking about those ideas during the videos. I also would include a more in depth conclusion or more thought provoking discussion questions that could expand to other topics or make them think about why the vegetation disappeared.

Sources/References:

1) The Lion King. Dir. Rob Minkoff, Roger Allers. Perf. James Earl Jones, Jeremy Irons, Jonathan Taylor Thomas. Walt Disney Pictures, 1994. DVD.