

Standards

3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.

Resources

Longleaf Pine Habitat- Pee Dee Explorer Video

Daufuskie Island-Carolina Snaps

<https://tourdaufuskie.com/grey-fox-squirrels-on-daufuskie/>

1. Introduction:

- Start with a brief discussion on what traits are. Use simple examples like eye color, hair type, or the ability to roll the tongue.
- Introduce the idea that while some traits come from our parents (genetic traits), there are also traits that can be influenced by the environment.

2. Engaging Activity:

- Conduct an interactive activity to illustrate how traits can be influenced by the environment. For example, have a set of identical seeds and plant them in different environments (varying sunlight, water, or soil conditions).
- Observe and discuss how the plants in different environments develop different traits (height, color, etc.).

3. Read-Aloud and Video:

Use the short video: What's Wild: Fox Squirrel that introduces the concept of environmental influences on traits.

Use the attached article and complete the reading strategies below:

1. **Previewing:** Before reading, have the students preview the text. Look at headings, subheadings, and any images or captions. Discuss what they think the text might be about based on these elements.
2. **Activating Prior Knowledge:** Connect the information in the text to what students already know. Ask them questions related to their own experiences or what they've learned before.
3. **Making Predictions:** Encourage students to make predictions about what they expect to learn from the text. This engages them in thinking about the content before diving into the reading.
4. **Chunking Text:** Break the text into smaller chunks and read one section at a time. Discuss the main ideas after each section to ensure understanding before moving on.
5. **Asking Questions:** Encourage students to ask questions as they read. This helps them stay engaged with the material and promotes critical thinking.
6. **Visualizing:** Have students create mental images of the concepts they are reading about. This can enhance comprehension and make the information more memorable.
7. **Note-Taking:** Teach basic note-taking skills. 3rd graders can draw pictures, use keywords, or write short phrases to summarize key points as they read.
8. **Summarizing:** After reading a section or the entire text, ask students to summarize the main ideas in their own words. This helps reinforce comprehension.
9. **Discussion:** Foster class or small group discussions about the text. This allows students to share their thoughts, clarify doubts, and learn from each other.
10. **Graphic Organizers:** Use simple graphic organizers to help students organize information visually. This can include charts, diagrams, or concept maps.
11. **Retelling:** Have students retell the information in their own words. This reinforces understanding and helps them practice expressing concepts.
12. **Reflecting:** After finishing the text, encourage students to reflect on what they have learned. Ask them how the new information connects to what they knew before.

Optional: Use Longleaf Pine Habitat-Pee Dee Explorer Video and/or Daufuskie Island Carolina Snaps video to show students what Longleaf Pines look like and what Daufuskie Island is like. Both are available on Knowitall.org

8. Data Collection:

- If feasible, conduct a small-scale class project where students collect data on a specific environmental factor and its influence on a chosen trait. This could be a short-term project with regular observations.

9. Recording Findings:

- Have students document their findings in a simple scientific journal or poster. This reinforces the idea of using evidence to support explanations.

10. Conclusion:

- Summarize the lesson by emphasizing that traits can be a result of a combination of both genetics and the environment. Discuss how scientists use evidence to support their explanations.

11. Assessment:

- Use informal assessments like discussions, observations, or student journals to gauge understanding. Encourage students to explain how they know traits can be influenced by the environment.



If you ever took a tour around Daufuskie Island, you might have seen a unique animal running around. It looks like a big squirrel with gray and black colors, and it's called the Grey Fox Squirrel. These

special squirrels have been on Daufuskie Island for a long time.

Why do Grey Fox Squirrels look different from other squirrels?

Scientists think it's because of the relationship between these squirrels and a tree. Fox Squirrels really like to eat the seeds from the cones of the Longleaf Pine tree, which used to be common on Daufuskie. Longleaf pinecones are some of the biggest cones in the Southeastern United States. It's believed that having a big body was helpful for the Fox Squirrel when trying to get the seeds from these large cones. So, over time, squirrels with larger bodies were chosen.

The black-and-gray colors of the Fox Squirrels might also be connected to the Longleaf Pine. This pine tree can resist fire and grows well in places that have fires. In the past on Daufuskie, there would be fires caused by lightning strikes in areas with leaf litter. The smoky colors of the Fox Squirrels might have helped them blend in when the forest was burned. Whatever the reason for their unique look, these squirrels are special on our island!

Adapted to 3rd grade reading level from <https://tourdaufuskie.com/grey-fox-squirrels-on-daufuskie/>

