S3L1: Habitats of Georgia

Dates: 8/17 – 10/29

Key Terms

Organism[2]
Habitat[2]
Animals[1]
Plants[1]
Mountains[2]
Marsh[2]
Swamp[2]
Coast (Coastal Plain) [2]
Piedmont[3]
Atlantic Ocean[2]
Ridge and Valley[2]
Appalachian[3]
Plateau[3]
Life Cycle[2]
Adaption[2]
Hibernate[2]
Migrate[3]
Predator[2]
Prey[2]
Producer[2]
Topography[3]
Ecosystem[2]
Environment[2]
Drought[2]
Balance[2]
Differentitate[2]
Investigate[2]
Features[2]

Framework for Teaching:

Students Will Be Able To:

1. Classify habitats based on characteristics of the habitats and the types of organisms that live in specific habitats.
2. Compare and contrast the different habitats found in Georgia.
3. Explain the relationship between the habitat and the dependence of the organisms that live in the habitat.
4. Identify features of organisms that allow them to live and thrive in different environments (camouflage, migration, mimicry, etc.).
5. Describe the cause and effect relationship between changes in a habitat and the survival of the organisms that live in that habitat.

For the teacher to know for their own understanding and to avoid misconceptions:

1. A characteristic that helps an organism survive is called an adaptation. Adaptations arise from natural selection.
2. Natural selection is not only related to survival of the fittest but it also involves reproduction of the "fittest" organisms in a habitat or environment. Organisms that do not survive long enough to reproduce due to traits will eventually disappear and so will their traits.
3. The application of features to survival will be questioned. For example, a plant that has long roots and waxy stems and leaves will be able to survive in the desert. These characteristics or traits are adaptations for survival in an area that may not have much water.
4. Hibernation and migration are animal adaptations that allow them to cope with extreme weather. (Birds tend to migrate and mammals tend to hibernate)
5. An ecosystem is all of the living and non-living things that interact in a place. This should not be used as a synonym for environment or habitat. Each has a unique inclusive definition. Habitat is a place where an organism lives (e.g. tree). An environment is everything that is around a living thing (perspective of the living thing). An ecosystem has an interaction piece to it.
6. Changing a living things environment can cause it to be effected. The effect of the living thing then affects other living things. This can be a chain reaction. This connects the habitat unit to the pollution unit.
7. Piedmonts are not mountains. Precipitation and temperature is what really differentiates these two habitats.
8. Coastal plains and wetland are not the same. Coastal plains are sandy and wetlands are wet all or most of the time.
9. Some factors that can change and affect ecosystems are weather (i.e. droughts), fires (man-made and natural).

<u>Activities (Suggestions)</u>

- ✓ Oil Spill (Just the part where students create the habitat). The pollution part is in the next unit and quick reference guide.
- ✓ Station Lab: Have different plants, animals and non-living components of Georgia habitats at different tables. Assign students a Georgia Habitat and have them construct a model using the mixed up components.

<u>Notes:</u>

Students should be transitioning into writing longer explanations and lab reports. Have students write about their observations. This unit lend itself to graphic organizers due to the multiple habitats and characteristics of each. Cause and effect can be applied to most of this unit. Make sure that when you close this unit to use the closing as an introduction to the next unit on pollution. Now that we know all of these things about habitats what will happen when we spill oil in the ocean (or another example). Allow students to make inferences about habitats and monitor misconceptions that arise from these inferences.