

# Student Work

## Paper Pack

- Which habitat most likely has better soil? What is your evidence?  
\_\_\_\_\_  
\_\_\_\_\_
- Which habitat has a wider variety of organisms? What is your evidence?  
\_\_\_\_\_  
\_\_\_\_\_
- Which habitat has less food for animals? What makes you think so?  
\_\_\_\_\_  
\_\_\_\_\_
- Which location would you choose to match habitat 1?  
a. Desert  
b. Forest
- Which location would you choose to match habitat 2?  
a. Beach  
b. Mountain Valley

The Coastal Plain does not count animals or plants underwater at the beach. Draw **symbols** in the box below to show the organisms underwater.

Define Organism:

The new visitor center construction has removed much of the green \_\_\_\_\_ covering the eastern side of the island. More open ground is now covered in only \_\_\_\_\_ and rock. Upon arriving on the island, only green insects were observed for months. After over a year of construction, these are seen less and insects in shades of \_\_\_\_\_ are seen more often. It is now almost impossible to find a \_\_\_\_\_ insect like those when we first arrived.



## Slide

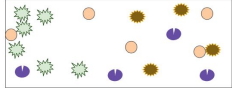
### Counting Organisms

Look at the boxes. Star shapes represent plants and circles represent animals bigger than insects. Use the boxes and the key to answer the questions.

Habitat 1



Habitat 2



- Which habitat most likely has better soil?
- Which habitat has a wider variety of organisms? Why do you think so?
- Which habitat has less food for animals?
- Which location would you choose to match habitat 1?  
a. Desert  
b. Forest
- Which location would you choose to match habitat 2?  
a. Beach  
b. Mountain Valley

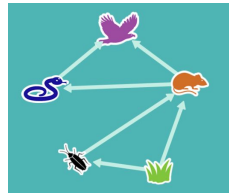
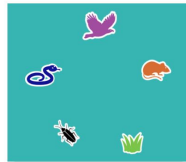
### New Island Discovery!

Lost in the middle of the ocean, scientists have found a small island. They know that the island has very few organisms living on it.

These are the organisms:  
1 type of small, bush-like plant  
1 type of plant eating insect  
1 small rat-like animal that eats plants and insects  
1 small snake  
1 bird of prey

Add arrows to this chart to show the relationships between the organisms.

Who eats who?



Think: What do we need from our environment?



No living thing can survive without some help.  
Watch the video and look for ways the organisms are using their environment.

Make a list of as many as you can, but there are 3 big ones that we cannot live without!



Think: What about a plant's environment?

Look at the list and decide if each statement is or is not part of a plant's environment.

If it is a part, mark the box. If not, leave the box blank.

- ☐ The air
- ☐ The soil
- ☐ The insects, like bees
- ☐ The sunlight
- ☐ The rain
- ☐ The trees casting shade over it



S4 Explore: What we need from our environment

What are the 3 BIG things no organism can live without?

Are the things a plant needs the same as what an animal needs? Explain.

Which do you think has an easier time getting what it needs? Plant or Animal? Explain your reasoning.

What is a habitat?

What do living organisms need from their habitat?

List 3 things that could naturally change in a habitat that would make it difficult for some animals and plants to still live there.

To survive in a habitat, plants and animals must adapt successfully. The plant needs sunlight to grow, so if it wants to grow it will adapt in a way that gets it more sunlight. How do you think the plant will do this?

What does adaptation mean?

Which fact matches which region? Write the correct answers on the lines.

These 2 regions are separated by the Fall Line.

These regions are part of something that formed over 250 million years ago!



Label the regions on the map.

List the 2 main habitats of Georgia's regions and describe them.

S8 & 9 Coastal Plain and Valley & Ridge

Some special habitats are listed below. Label each by which General habitat it falls under. Use the 2 columns below to make your sorted list.



Saltwater Marsh	Swamp	Meadow

Georgia is divided into 5 areas based on how the land is shaped, the average weather, and the habitats of living organisms. We live right beside the Blue Ridge Mountains (Elijah) in the Ridge & Valley part of Georgia. You can see 1 of the ridges when driving into Dalton towards the interstate.

Use the following link for Scientific research - [https://edu.gpb.org/FINAL/PFTs/HTML/regions-ga/000\\_Georgia/01Map/index.html#GeorgiaMap](https://edu.gpb.org/FINAL/PFTs/HTML/regions-ga/000_Georgia/01Map/index.html#GeorgiaMap)

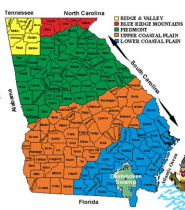
Research the following about each region:

What are the main features of the land, the geography?

What is the soil like? Do plants grow well there?

What is the weather like? Does it change the land a lot?

What is important about the region?



### Coastal Plains

Which type of general habitat do you think this is, and What is your evidence?

What kind of animals would live in this habitat?

Think about what the weather must be for it to have these plants and what it would be like to find food or shelter for animals.



### Animal Challenge! Time to Play Mad Scientists!

Your challenge is to create an entirely new animal that could survive in one of the Georgia region habitats shown. Your animal must be realistic and you must EXPLAIN each adaptation.

Research your Region to find out more about its Habitats first! Use the link below.

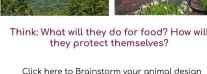
Appalachian Plateau



Blue Ridge Mountains



<https://sites.google.com/view/georgiasgeographicregions/home?authuser1>



Think: What will they do for food? How will they protect themselves?

Click here to Brainstorm your animal design

# Teacher Notes

## Engage: Starting the Thought Process

The purpose of these slides are to get students to notice the plants and animals in a specific place and how that place differs from another.

With Counting Organisms, students should make observations about the number of plants and animals and what clues that gives about the environment. Try to get as much meaning detail from students as you can when they describe what they see.

With New Island Discovery, students should make observations about the relationships between the animals and plants on the island.

With Changes on the Island, students should make connections between the changes humans are making and the resulting changes in the plants and animals. Try to guide them to reasoning that if the construction destroys the grass, the insects & rodents have less food and shelter so they will get eaten more and their population will shrink. Less grass means more dirt, so the insects that were brown could blend in and hide better. With green ones getting eaten and brown ones surviving, the population will change to be more brown insects. The prey animals may have more food at first, but if they eat too much without letting them reproduce the food runs out.

## Explore: Making Connections

Now that students have started thinking about different plants and animals living in a place together, they should start thinking about that they need to stay alive. Many students may have not thought much about what all a plant needs or the special relationships between plants and animals beyond the bee.

Try to socratically guide students to notice where the light is coming into the box and make the connection that the plant needs that light to survive. Ask them to think about seasons changing from Summer to Fall and how the plants change to get ready. Ask the students to think about what would happen if we did not have a Fall or Winter. What would change? Try to get them to say temperatures and use it to discuss how temperature changes would affect animals too. As human animals, we used our big brains to problem solve ways to control temperature inside our shelters.

## Explain: Regions of Ga

Now that students understand how plants and animals survive, they will learn about specific habitats in Georgia. Allow students to research using the website provided and the guide questions. Make sure they list at least 3 plants and 3 animals found in their region. If anyone finishes quickly, as them to go back and look for specific adaptations those animals have to survive and list them as extra facts.

The slides pertaining to regional information should lead up to looking more closely at the ways in which animals live in a habitat like forest or swamp. Students need to understand that there are different features, like land shape and weather, that makes each habitat different and those things create many different habitats, but it is unneeded for them to memorize many types of habitats at this level. Surviving in your habitat focuses on the content vocabulary that students need to know according to the standard. Discuss with students examples of each type of adaptation and help them construct well-written definitions for their science papers.

The Animal Challenge is a fun formative assessment that will help you check for understanding of adaptation and how it fits a habitat. Be sure to monitor students while they do research and do not let them Brainstorm until their slide/paper is complete. They could waste so much time!

Extend: Try to fuel some passionate future conversationalists! Show Croc Hunter!

Add any additional curriculum text resources here.