

Title of Project: Georgia Regions and Habitats

Subject(s): Science, ELA, Math, Visual Arts

Grade Level(s): 3rd

Abstract:

Students will take on the role of environmental scientists by exploring, investigating, and reporting on the various plants and animals that live within Georgia's geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau). They will use the knowledge they have gained throughout the lesson to evaluate ways in which they can protect habitats and identify issues that affect wildlife. Students will present their findings to their audience using Sway and iMovie (create a commercial about how to protect habitats). The student roles in this project are producer, explorer, and teacher being that they research and pursue new ideas to create products that are meaningful to themselves, as well as others, that can help protect animals and habitats all while helping others learn in formal/informal contexts. The teacher's roles will demonstrate as a facilitator (simulate discussions and monitor the process of learning), guide (direct instruction as needed to help students complete task), and co-learner/co-investigator (allowing students to pursue questions to which he or she does not have answers).

Learner Description/Context:

Our school has a high population of African American students 60%, Hispanic 20%, Caucasian 12%, Asian 3%, and the rest fall under two or more races. It is a Title I school where most of the students receive free or reduced lunch. The learning environment will take place inside the classroom. The majority of the class is Hispanic along with African American students. The students will use provided laptops to complete their products.

Time Frame: This learning experience will take approximately 3-4 weeks to complete. 40 minutes a day will be dedicated to the learning experience.

Standards Assessed:

S3L1. Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau) of Georgia.

- a. Ask questions to differentiate between plants, animals, and habitats found within Georgia's geographic regions.
- b. Construct an explanation of how external features and adaptations (camouflage, hibernation, migration, mimicry) of animals allow them to survive in their habitat.
- c. Use evidence to construct an explanation of why some organisms can thrive in one habitat and not in another.

ELAGSE3W2 - Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

ELAGSE3W7 - Conduct short research projects that build knowledge about a topic.

ELAGSE3SL1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly

ELAGSE3SL4 - Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace

MGSE3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.

VA3.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning.

c. Produce multiple prototypes in the planning stages for a work of art (e.g. sketches, 3D models).

VA3.CN.2 Integrate information from other disciplines to enhance the understanding and production of works of art.

a. Apply art skills and knowledge to improve understanding in other disciplines.

ISTE Standards:

2b. Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

3a. Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

3d. Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

Learner Objectives:

Students will research and collect data on different plants and animals within Georgia's geographic regions. They will plot temperatures over the course of the project of the different habitats, track animal types in the different regions and compare the averages across the habitats. Students will investigate concerning issues about habitats and justify ways that they can help protect them. They will design a project that implements their ideas while integrating resourceful technology tools. Then they will present their creative products to audiences in and outside of the classroom. Teacher will also use Georgia Region Presentation rubric to measure student success.

The "hook" or Introduction:

Teacher will present the Georgia Habitats and Regions power point to students and hold class discussion. (https://drive.google.com/file/d/0B311r_Wa78UPR21kR1k1SXYyMEE/view)

After viewing the power point, teacher will ask students, "What is a habitat?" "What makes where you live a habitat?" "How do you survive in your habitat?" Have students to draw pictures of their home, showing all the rooms, and things that surround their home. Allow students to show their picture to a partner and describe their habitat. Have students spend some time simulating building a habitat by going to Build An Online Habitat at <http://switchzoo.com/games/habitatgame.htm>. Have a speaker come in (or Skype) to discuss about animals and habitats. This project will be interesting to students because it introduces real-life experiences in which they can connect with and they can evaluate the importance of protecting habitats and wildlife.

Process:

- Introduce hook (stated above).
- Review the Georgia Habitats and Regions Power Point.
- Discuss that the Appalachian Plateau, Valley and Ridge, and Blue Ridge Mountain regions are all mountainous regions with higher elevation, cooler temperatures, clear and fast moving rivers, etc.
- Allow students to explore GPB- Virtual Field Trips
<https://gpb.pbslearningmedia.org/collection/regions-of-georgia-virtual-field-trips/#.WtOpzujwY2w>
- Employ the help of the school's media specialist to teach students how to conduct proper research using age-appropriate websites.
- Place students in groups and assign each group one of the five Georgia regions to explore and research.
- Teacher will guide group's research using the inquiry questions.

Inquiry questions:

1. What is an ecosystem?
 2. What things (plants, animals, rocks, etc.) exist in an ecosystem?
 3. What are the geographic regions of Georgia?
 4. What types of habitats exist within each Georgia region?
 5. What type of climate exists within each region?
 6. Which animals can be found in each of Georgia's regions?
 7. Which plants and trees create the forests found in each of Georgia's regions?
 8. What are some things that endanger habitats?
 9. What can we do to help prevent these problems?
- Students will use books, laptops or desktop computers to engage in research based on their assigned region.
 - Allow students to collect data on plants and animals in the different regions and compare the averages across the habitats.
 - Students will plot the temperatures over the course of the project of the different habitats.
 - Since this is a student-led activity, have students to independently conduct their own research and gather information. They will write an informative paper that includes their new learnings.
 - Using the information gathered, groups will create a 3-D model and Sway presentation of their Georgia region that will showcase the type of plants and animals that live within that region. They will share informative information about the hazards of habitats and their ideas of keeping them safe.

Product:

At the end of this experience students will share their projects with peers and others outside of the classroom using Sway and iMovie. This project will be meaningful to students because they get to create their own product and share informative, real-world concerns with others while building higher order skills in the process. Teacher will allow students to provide feedback to their classmates and generate their own assessments. Formative assessments will be used to

assess the product by observing student understanding and ability to complete the project and by the final result of product. The Georgia Region rubric will be used as a guide.

Technology Use:

Students will use laptops, provided links, and provided power point to research about animals and habitats. They will use Sway to present to peers and iMovie as a tool to engage their outside audience in learning. Indicators of engaged learning is supported by allowing students to explore new ideas/research importance topics (explorer) and develop products that are meaningful to them as well as others (producer) while helping others learn in formal and informal contexts (teacher).

References and Supporting Material:

Georgia Habitats and Regions power point

https://drive.google.com/file/d/0B31r_Wa78UPR21kRik1SXyyMEE/view

Build An Online Habitat <http://switchzoo.com/games/habitatgame.htm>

GPB- Virtual Field Trips

<https://gpb.pbslearningmedia.org/collection/regions-of-georgia-virtual-field-trips/#.WtOpzujwY2w>

Forest Management - <http://www.gfc.state.ga.us/forest-management/>

Geographic Regions of Georgia

<http://georgiainfo.galileo.usg.edu/topics/geography/article/geographic-regions-of-georgia>

Exploring the Habitats of Georgia worksheet

<https://docs.google.com/document/d/19Iiw9fV4DQtewsKWlxtUXWyyvtXl2vyUnK9FY1ovhhg/edit>

Georgia Regions Presentation Rubric

<https://docs.google.com/document/d/1RsLjMy3bYlayj2B2uFjy4rwPzoCDx9uDvALpioavIow/edit>