Georgia Performance Standards Framework for Life Science- 7th Grade

Unit: Interdependence of Life
General Task
Biome Community Quilt

Subject Area: Life Science
Grade: 7th

Standards (Content and Characteristics):

S7L4. Students will examine the dependence of organisms on one another and their environments.
   e. Describe the characteristics of Earth’s major terrestrial biomes (i.e. tropical rain forest, savannah, temperate, desert, taiga, tundra, and mountain) and aquatic communities (i.e. freshwater, estuaries, and marine).

S7CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
   a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S7CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.
   a. Use appropriate technology to store and retrieve scientific information in topical, alphabetical, numerical, and keyword files, and create simple files.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
   a. Observe and explain how parts can be related to other parts in a system such as predator/prey relationships in a community/ecosystem.

Enduring Understanding: Earth is comprised of terrestrial biomes and aquatic communities that have similar, yet unique characteristics.

Essential Questions: How are earth’s biomes differentiated by ecologists?
**Pre-Assessment:** Chalk-talk – Group students to accommodate all of the biomes and aquatic communities. Have one sheet of paper pre-labeled with the name of each of the biomes and aquatic communities. Give each group different colored markers (each group should have a distinguishing color). Give students one minute to write what they know about that biome/aquatic community. Say next and have students pass paper to the next group. Repeat until all groups have recorded information on all papers. The teacher and students have a short discussion of their prior knowledge and identify areas of strength and weakness.

| **Outcome / Performance Expectations:** | The students will research and identify common plants and animals, climatic characteristics, and geographical locations and characteristics of terrestrial biomes and aquatic communities. They will describe factors that allow specific plants and animals to be dependent on the biome/community in which they live. They will compile the information, present it to fellow group members, and create a “biome/community quilt” to illustrate and present their research to the class. |
| **General Teacher Instructions:** | Students will be placed in cooperative learning groups. The teacher will provide various research materials or take students to the computer lab to allow them to research and gain needed information about the various biomes and communities. Group members will gather information in a “Jigsaw” method and then teach fellow group members so that information on all biomes/communities is gathered. Students will then be provided with “quilt” squares, one for each biome/aquatic community. Groups of students will record required information and an illustration for each biome/aquatic community on the squares. Squares will then be taped together to create a quilt. Quilts will be presented to the class and then displayed in the classroom, hall, or media center. |
| **Materials Needed:** | Research materials, paper squares, art supplies, tape |
| **Safety Precautions:** | None required |
| **Task with Student Directions:** | 1. Organize tasks so that each member of your group will contribute to the research process. Each member should be assigned 2-3 different biomes/communities and become an “expert” of knowledge on each. |
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<td>2.</td>
<td>Use various materials or computer lab to locate and record common plants and animals, climatic characteristics, and geographical locations and characteristics of terrestrial biomes and aquatic communities.</td>
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<td>3.</td>
<td>Once research is done, each member of the group will “teach” the remainder of the group about his/her assigned biomes/communities. Group members will have graphic organizer/outline templates to record important information about all of the biomes/communities. When all knowledge has been shared, the group members will work together to record required information and an illustration for each biome/aquatic community on the squares. Squares will then be taped together to create a quilt.</td>
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<td>4.</td>
<td>Quilts will be presented to the class by groups and then will be displayed.</td>
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**Resources:**

- [http://www.mbgnet.net/](http://www.mbgnet.net/)
- [http://www.worldbiomes.com/](http://www.worldbiomes.com/)

**Homework / Extension:**

Which biome would you most like to live in? Why? What adaptations would you and your family need to survive in that biome?

**Instructional Task Accommodations for ELL Students:**

Utilize illustrations of various biomes and graphic organizers for organization of research. Preview the terms terrestrial and aquatic with ELL students prior to task. Work in cooperative groups encouraging verbal discourse for explanation and reinforcement.

**Instructional Task Accommodations for Students with Specific Disabilities:**

Peer partner to assist with navigation of websites and reading of research materials. Provide research materials on a lower independent reading level. Provide a graphic organizer for organization of research.

**Instructional Task Accommodations for Gifted Students:**

Students will also include information about 2 different interactions among different organisms that occur within each biome/community on their quilt squares.