

Teachers' Circle Lesson Plan Template

Name: Gina Sershen
Subject area: Science
Grade level: 5th
Lesson title: Interactions of Earth's Spheres

Brief summary/lesson plan description

In this lesson, students will be using the resources available at the Washington Pavilion to show the interactions between the different spheres of Earth. Examples of resources include sand/water table, earthquake table, animals in aquariums, tornado, etc. The following day, the students will complete an adobe spark showing what they learned at the Washington Pavilion and also create a work of art (a type they saw at the pavilion) that demonstrates the interaction of the spheres.

Common Core or State Standards Addressed

5-ESS2-1: Develop a model to describe the interaction of geosphere, biosphere, hydrosphere, and/or atmosphere.

Essential Skills and Strategies Addressed (Creativity/Critical Thinking/Communication)

Overall essential skills addressed: Critical thinking, creativity, communication, and technology.

Science Essential Skills (Cross-cutting concepts)

**Cause and Effect:* Students will see how changes in one sphere can affect the other spheres in different ways.

**Systems and system models:* Each of Earth's spheres is considered a system. With this lesson, students can clearly see how these systems are effected. Some examples include landform shapes and climates.

**Stability and change:* This lesson has everything to do with how fragile these different spheres/systems are and how changes in one sphere and alter another system.

Instructional Strategies/Differentiation

In this lesson, my students will choose a resource to observe/analyze and manipulate at the Washington Pavilion. They will work with a partner to decide how the resource shows an interaction between different spheres of the Earth. This activity is very hands on. They will also be collaborating with a partner to share ideas and complete the activity with. Upon return to school, they will be creating a work of art that represents the interactions that they saw between the Earth's spheres at the Washington Pavilion.

Differentiation takes place with the graphic organizer. Some students will need a modified graphic organizer at their own level. Their google slide will also have different requirements.

Lesson objectives (Students will understand...)

Students will understand how the Earth's spheres interact.
Students will understand how different resources available show examples of the interactions and be able to explain the interactions.
Students will be able to create a model with a computer program called adobe spark.
Students will create a work of art, that they observe at the Washington Pavilion, that demonstrates their learning.

Essential Questions to guide this unit/lesson and focus teaching and learning:

What are the different spheres of Earth?
How are the spheres different?
How does one sphere affect another sphere in different ways?
What are some examples of how the resource shows the effect of the one sphere to another?
What works of art interested you?
What work of art will you use to create a representation of interactions of the Earth's spheres.

Technology and Resources Needed

*Students will be creating a google slide project over their findings at the Washington Pavilion.

Procedure (learning activities)

Choose one of the exhibits at the Washington Pavilion that shows the interactions of the Earth's spheres. Below are some examples of interactions.

- ~Erosion Table: Students will observe how the water (hydrosphere) impacts the sand (geosphere).
- ~Earthquake Table: Students will observe how an earthquake will impact both living things (biosphere), and the geosphere (the land/structures).
- ~Tornado: Observe how the tornado forms. They will analyze how a tornado (atmosphere) can impact people (biosphere) and land (geosphere).
- ~Bee Structure: Students will analyze how bees (biosphere) impact the land and other living things.
- ~Animals/Aquarium: Students will observe the animals in the Kirby Science Center. They will discuss how the water (hydrosphere) impacts the animals (biosphere), they could also discuss how the animals (biosphere) impact the land (geosphere).

*The students will be also observing and analyzing different forms of art at the Visual Arts Center. They have a job in the Visual Art Center, it is to choose one form of art/exhibit that they like the best. When we return to our classroom, they will be using that form of art to show the interactions of the spheres. It could be a drawing, painting, diorama box, etc. This will change during the time of year the students go on a field trip and what exhibits are present.

Assessment Method

I will be assessing them through their work with partners, on their graphic organizer, through their adobe spark or with work of art. I have a rubric for the google slide project and their art work.

Museum Exhibits/Resources Utilized

Some examples that they could use are sand/water table, earthquake table, animals in aquariums, tornado, and artwork at the Visual Arts Center.