

“SENSE-SATIONAL” Puerto Rico - Day 1

Summary:

This lesson will introduce students to some of the many “treasures” that the island of Puerto Rico offers. We will make these explorations by using our five senses; sight, sound, smell, touch and taste. For one week, each day will focus on a specific sense to use in order to learn more about Puerto Rico. Then, by making contrasts and comparisons to our own local “treasures”, I hope the “seed” will be planted whereby students can understand more thoroughly, their connection to a global community. This particular lesson plan focuses on the sense of sight.

Background:

Puerto Rico has been a commonwealth of the United States since 1952. Prior to the arrival of Christopher Columbus in 1493, the island was known by the Taino Indians as Borinquen. The people of Puerto Rico are of Spanish, African and Indian descent. For such a small island, it is rich in culture. Diversity lies within their people, food, drink, environment, flora and fauna. The primary language of Puerto Rico is Spanish with English being their secondary language. Puerto Rico is only 35 miles wide and 100 miles long. It is the smallest island in the Greater-Antilles.

The landscape includes mountains, beaches/coral reefs, limestone Karst, rainforest, coastal plains and coastal dry forest. Temperatures range from 73 degrees in winter to 80 degrees in summer. The mountains can be much cooler, ~ 50 degrees. Rainfall averages 100 inches with only 37 inches near Ponce, to 200 inches at El Yunque. Hurricane season in Puerto Rico is from July to October with September being the most likely month for hurricane activity.

Puerto Rico suffers from many environmental problems such as over population/growth, limited water resources, fighting invasive species, habitat destruction and pollution. Some of the natural wonders of the island of Puerto Rico (Vieques) include coral reefs, rainforest, limestone Karst, bioluminescent Bay, mangroves, Cavernas del Rio Camuy (underwater river) and home to many endangered and endemic species such as the Puerto Rican Parrot and Hawksbill Turtle.

The offshore island of Vieques has been used by the U.S. Navy and Marines for the last 60 years. Up until 2003, the island was used for training and practice with live ordnance. Because of contamination and health risks on the island, Vieques is being considered, by congress, as a Superfund project.

Puerto Rico has some of the most dynamic economies in the Caribbean. Their agricultural products include; sugarcane, coffee, pineapples, plantains, bananas, livestock

Grade Level: K-3

Key Concepts:

Awareness
Appreciation
Participation
Sense of hearing

Goal: Students will begin to understand that they are members of a global community by using their sense of sight.

Objectives for day 1:

- 1.) Getting acquainted with the five senses
- 2.) Understanding the importance of the sense of sight
- 3.) Understand the relationship between Wisconsin and Puerto Rico
- 4.) Use sight to identify physical characteristics of Puerto Rican landscape.

products and chicken. Tourism is an important source of income along with the exportation of rum.

Materials:

- Tape player for story “Viva, la Tortuga!”
- Globe
- Maps
- Inflatable globe
- Posters and personal photos of Puerto Rico

Set- Up:

Get map and globe supplies ready for lesson. Fully examine them to become acquainted with what you will show students. Set up tape or CD player to play music.

Procedure:

Introduction

Activity 1.

Students will look, listen and discuss the story “Viva, la Tortuga!”

Activity 2.

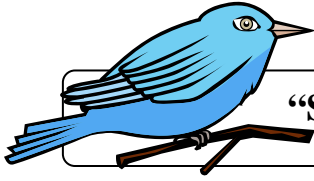
Students will listen and look at the different sounds of the Spanish alphabet.

Activity 3.

Students will find Wisconsin and Puerto Rico on maps and a globe. They will discuss the two places in relation to each other. Using the maps and inflatable globe, students will learn to read about land and water mass.

Activity 4.

Students will look for patterns and shapes in personal photos and poster of Puerto Rico.



“SENSE-SATIONAL” Puerto Rico – Day 2

Summary:

These activities will help the student learn more about the island of Puerto Rico, using their sense of hearing. They will listen to traditional Puerto Rican music using a C.D. from P.R., will enjoy the sounds that maracas make and the rhythms that make them dance! The sounds of the natural world will be touched upon, learning about the small tree frog, the Coqui. And, they will experience the native tongue of Puerto Rico by learning to speak some everyday Spanish words.

Background:

The Tainos Indians were richly blessed with music and dance. Because of their control by Spain however, little of their music survived but some of the traditional instruments did. These instruments are made of gourds: the maracas and the guiro, (an elongated gourd slit open to create a sound chamber when used with a stick.) For about five centuries these instruments were incorporated with African rhythms and the Spanish guitar. The African rhythms inspired the musical dance called the bomba. Puerto Ricans are very proud of their traditional music and dance along with the modern Salsa. An example of some successful rhythms coming from Puerto Rico today is Ricky Martin. His songs have found their way to the top of the charts around the world.

There are 16 native species of tree frogs or Coquis, in Puerto Rico. 13 of these species are endemic to Puerto Rico. Common Coquis actually produce the sound of their name, “co-kee”. They range in size from 15 mm to 80 mm. They vary in color from gray to brown, to green to yellow. They usually begin calling at sunset. They call to defend their territory and to find a mate. They do not go through a tadpole stage, but lay eggs. At the end of incubation, a froglet emerges from the tiny egg. They have pads on the tips of their toes to help them climb up slippery surfaces.

Spanish and English are the official languages of Puerto Rico and have been since 1898, but with problems. Throughout the years, there has been much controversy over whether to keep Spanish the official language because of heritage, or to make the official language English in order to stay linked with the U.S. Native born and older Puerto Ricans, however, almost always speak to each other in Spanish.

Grade Level: K-3

Key Concepts:

Awareness
Appreciation
Participation

Goal: Students will begin to understand that they are members of a global community using their sense of sound.

Objectives for day 2:

- 1) Understand how to use sense of hearing to understand a different culture and environment.
- 2) Understand the sounds of traditional Puerto Rican music
- 3) Understand the sounds of the coqui tree frog and natural environment
- 4) Basic Spanish skills

Materials:

- CD or tape player
- Maracas or other traditional Puerto Rican instruments
- Pictures of the Coqui frog and tapes/CDs of the sounds they make
- List of Spanish numbers, colors and greetings

Set-Up:

Set up the CD/ tape player and have it ready for listening to music and Coqui sounds. Have information on the Spanish language and background of Coqui frogs ready.

Procedure:**Introduction****Activity 1.**

Students will use their sense of hearing by listening to traditional Puerto Rican music. They will describe the sounds they hear and decipher how it is different than American music. While listening to the music students are allowed to dance.

Activity 2.

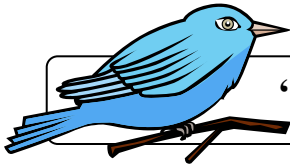
Students will use maracas to understand the sounds of Puerto Rican music. The maracas are used as a tool for students to interpret the music.

Activity 3.

Students will use their sense of hearing to listen to the Coqui tree frog. An introduction of the frog, including basic background information will be presented. The students will listen to how the tree frogs call sounds like its name as well as understand why the frog makes particular sounds.

Activity 4.

Students will use their sense of hearing to listen and learn how to count to ten in Spanish. They will learn how the Spanish language sounds similar and different from English. They will also learn simple greetings. Students will work with a small group of Spanish High School students to hear the language spoken more, as well as to develop their vocabulary to colors and other basic words.



“SENSE-SATIONAL” Puerto Rico – Day 3

Summary:

These activities will help the student learn more about the island of Puerto Rico, using their sense of smell. They will take a field trip to the local greenhouse to get an idea of what humid, moist air is like; similar to Puerto Rico. They will also “test” a variety of Puerto Rican fruits, using their sense of smell only. Since coffee is an important crop of P.R. students will also get a chance to enjoy the aroma of the islands coffee and compare with the familiar coffee aroma from home.

Background:

The sights and sounds of Puerto Rico are only enhanced by its many rich aromatic scents of: tropical flowers, humid rainforest, sea air, mangrove muck, musty caverns, “earthy” soils, Caribbean food, fruits, rum, coffee, and bakery. You may forget the name of the night flowering Jasmine, but you will never forget its fragrance. The sound of the sea is powerful, but if you close your eyes its’ fresh scent is delicate. Commercially grown coffee is ready in three years. Coffee beans are picked one bean at a time. Ecologically grown coffee is “Trade Coffee”. Shade coffee is an example of “Trade Coffee”. Coffee plants last ~30 years. The berries are ripe (red) in August to December. To capture and share the scents of Puerto Rico in my classroom will be more difficult.

Materials:

- Arrange trip to local greenhouse
- Common Puerto Rican fruits
- Puerto Rican coffee and other ground coffee

Set-Up:

Arrange a field trip to a local greenhouse. Have fruit and coffee prepared for smelling exercise.

Procedure:

Introduction

Activity 1.

Take a trip to the local greenhouse. Experience the smells of humid soil, plants and fragrant flowers. Explain the correlation between the greenhouse smells and those of the rainforest in Puerto Rico. Once finished with the greenhouse tour, have students write thank you cards to the employees.

Grade Level: K-3

Key Concepts:

Awareness
Appreciation
Participation

Goal: Students will begin to understand that they are members of a global community using their sense of smell.

Objectives for day 3:

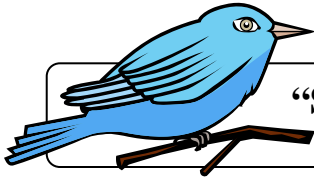
- 1) Students will review the five senses.
- 2) Describe the different scents of Puerto Rico. Including flowers, fruits, coffee, and things they smelt at the greenhouse

Activity 2.

In the classroom students will use their sense of smell to identify fruits native to Puerto Rico. The students will vote on their favorite fruit smell and make a class graph.

Activity 3.

Students will smell coffee native to Puerto Rico and compare it to other ground coffees. See if they can describe the different smells between coffees.



“SENSE-SATIONAL” Puerto Rico – Day 4

Summary:

These activities will help the student learn more about the island of Puerto Rico, using their sense of taste. Students will sample the fruit that they voted for yesterday. They will also get an opportunity to follow a recipe to make coconut cookies.

Background:

Puerto Ricans have inherited recipes from their ancestors; the Spanish, African and Native Indians. For example, Spanish colonizers brought olives, gazpacho, rice, fruits, and vegetables. The slaves from Guinea and the Gold Coast in Africa brought yams and bananas. The Borinquen Indians contributed corn, yucca, sweet potatoes, pineapple and peanuts. Soups and stews are staples in Puerto Rican cooking. In these brews you get a good example of the fusion of European, African and Taino ingredients. Puerto Rican fiestas have rituals of food, customs and traditions. The origin of their dishes and food habits are in relation to the development of agriculture and exchange of products with other countries. In 1511, King Ferdinand made a decree to establish an experimental farm for the introduction of new plants and the adoption of new methods in agriculture. This farm would also help increase the food supply for a growing colony. This was the first experimental farm in the New World. Since Puerto Rico is located between two continents, it was possible for a continuous dispersal of plants and seeds from Central and South America.

Materials:

- Recipe for coconut cookies, and needed supplies
- Puerto Rican fruits

Set-Up:

Prepare the kitchen for making the cookies. Have supplies ready and prepared. Have fruits cut ahead of time for student sampling.

Procedure:

Introduction

Activity 1.

Students will sample fruits they smelt the previous day. Students will discuss the different tastes and how the smells correlate with the taste.

Activity 2.

In the school kitchen prepare coconut cookies with the students.

Grade Level: K-3

Key Concepts:

- Awareness
- Appreciation
- Participation

Goal: Students will begin to understand that they are members of a global community using their sense of taste.

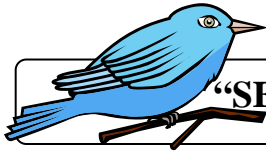
Objectives for day 4:

1) Learn Puerto Rican tastes through fruits and coconut cookies

Teaching Location:

This lesson will be taught in the classroom and the school's kitchen

Lesson Time Day 4: (these activities would be done the second semester of school)
The complete lesson will take ~1 hour; 30 min. in the morning and ~30 min. in the afternoon.



“SENSE-SATIONAL” Puerto Rico – Day 5

Summary:

These activities will help the student learn more about the island of Puerto Rico, using their sense of touch. They will have an opportunity to examine shells and rocks from Puerto Rico, using only their hands.

Background:

When thinking of our sense of touch, words such as soft, hard, rough, smooth, hot, cold come to mind. These are all things that we feel with our hands, our outer “shell”. But the sense of touch, should also include what we feel on the inside. How a particular thing makes us feel or react. The island of Puerto Rico can certainly be explored by using our sense of touch. For example, many of the leaves in the rainforest have a very thick, waxy coat to them, that almost makes them feel like plastic. Or the feel of cool, wet moss near the river, welcomes hot, achy feet. Maybe it’s the salt-water breeze blowing through your hair only to find out later that there is a thick, dry crust stuck to your strands. On the north side of the island you will find the coarse, hard feel of the karst limestone, where hiking is difficult and challenging. And then again there is that inner feeling; the feeling of contentment, relaxation and peace...of appreciation, (like when you visit the bioluminescent bay in Vieques,) that you are able to enjoy and experience this beautiful island.

Materials:

- Shells
- Rocks
- “Feely” box
- Rocks from local habitat

Set-Up:

Prepare classroom with shells, rocks and the “feely” box. Choose a local trail to walk along with your students.

Procedure:

Introduction

Activity 1.

Students will use their sense of sight and touch to examine shells and rocks. Then place the shells and rocks into the feely box where students will use only their sense of touch to identify them. Have students explain what makes the rocks feel different than the shells.

Grade Level: K-3

Key Concepts:

Awareness
Appreciation
Participation

Goal:

Students will begin to understand that they are members of a global community using their sense of touch.

Objectives for day 5:

- 1.) Use their sense of touch to distinguish the difference between Puerto Rican and local rocks.
- 2.) Use touch to observe.

Location:

In classroom and on local trail.

Activity 2.

Take students on a nearby trail and have them examine and touch rocks in their local habitat. Once back in the classroom, have them compare and contrast the difference between Puerto Rican rocks and shells and the ones from the local trail.

Activity 3.

Have students sort the shells and rocks according to color, shape and size.