



Who and or What Lives Here?

(Lesson 4 & 5)

Summary:

Students are going to explore and then document what they find in a 4x4 foot plot of land. They are then going to use the teacher-made field guides to identify 8 species. Next they will use that information to create 4 pages for a group book of the plot. This book will then be made in duplicate with one copy being sent to 2nd or 3rd grade classrooms in Puerto Rico. This activity will hopefully be completed in Puerto Rico by a 2nd or 3rd grade classroom so that we may begin an exchange of information on species of our areas and personal information via pen pals.

Background Information:

Before beginning this activity the instructor will first need to locate and mark out a 4 x 4 foot plot of land. This plot should be in an area that has a diverse population of plants, trees, insects, birds and maybe even mammals. Also make sure the area is free of any toxic type of plant; poison ivy, sumac, poison oak etc....

Next take pictures of the area and also video tape the area. If you can, get a picture of birds, chipmunks or squirrels that may frequent in the area.

The following step would be to look and identify most of the species of plants, animals and insects native to this area. Then make a master list. (You never know what might creep into the area when the students are observing) From the master list make a student field guide. (make at least 2 per each group) (Ideally it would be great to make the field guide on index cards with a ring for easy referencing, but it might just be easier the first time to just copy onto 8 x11 inch paper.) The information for each species should have the name of species, type of species, a picture (in color if possible), location of species-lives in tree, grows on the ground, lives underground etc...) and the size of species.

The instructor will need to teach the students how to carefully look at the species and the area with out

Grade Level: Science/Social Studies, Language Arts
Grades 2-3

Goal: The students will be made aware of just what really exists around us. All the things that we take for granted or never even notice. Students are to gain respect for the beauty around them and want to preserve it for others. They will also teach others about the knowledge they gained by creating a non-fiction book to share with others –even other students in Puerto Rico.

Key Concepts:

The students will learn how to carefully observe with out doing damage to the area. The students will learn how to use a field (teacher-made) to identify different plant and possible animal species. The students will use their writing and artistic skills to teach others about nature, in a factual way.

Objectives: Upon completion of these lessons, students will:

- 1) Be able to identify at least 2 species living in the plot of land.
- 2) Be able to use a field guide to identify a species.
- 3) Be able to teach others about a species native to the area studied.

Teaching Location:

Lesson 4: The majority of the time will be spent outside the classroom at the school forest, or other woody type area. The students will also need time inside to compile the information and also to decide who will be documenting what species.

damaging or harming any of the species. Also remind them to draw and take pictures, but not to take anything from the area. (Review how to use the cameras.)

For lesson 5 the instructor will need to make a master list of the species with a space next to the label. This is so the students can write their names next to the species they are going to be working with.

Materials:

Lesson 4

- A tape measure
- A roll of heavy duty yellow tape or rope
- A Science journal for each student/ pencils
- Field Guides (A Golden Guide) on plants, tree, animal, Birds etc...
- Teacher-made teacher guides
- Cameras for the students to use
- Magnifying glasses
- A watch or timer

Lesson 5

- Master list for students to sign up their species
- Paper for the students to do their rough drafts
- Special Paper for the final copies
- Colored pencils to color the illustrations
- Computer and photo paper to print out pictures
- Materials for bookbinding.

Set-Up:

Follow the procedures listed below

Procedure:

Introduction:

I would introduce this activity to the students by saying that for the next couple of days (weather permitting) we will be doing a Science lesson outside. I have divided you into groups of 4. (This way you have more control of the groups and can mix the ability groups, for more cooperative learning. You may also want to assign jobs to the group members so that each person is working for the group, and no one person is doing it all.) I would put the students

into their groups and hand out 2 teacher made guides to each group, Science journals and 1 vocabulary sheet for each of the students.

Lesson 5: Will be spent in the classroom, working on their page for the book. There will not be any duplications, so when a student decides what species he/she will be documenting, then they will need to check off the species on the list and write their name by it. (First come first served)

Lesson Time:

Lesson 4: 2x 60 minutes

Students will be divided into small groups of 4 or 5 students. Each group will have 1 -15 minute time period in the plot on Day 1. While they are waiting around they will be looking at the field guides. Day 2 the students in groups will have another 10 minutes to re-observe or to better clarify anything they need. This is also a time to draw sketches and or take pictures.

Lesson 5: 2 x 60 minutes

The students will be in their groups working on their final pages for the book if they do not complete it during this time individuals may need to complete their portions on their own. The teacher will then make the necessary copies.

(Autumn would be the best time of year for this activity, not able to do this in winter or early spring in this area of the country.)

Subject Areas for

Infusion:

Language Arts, Science and Social Studies

Standards:

English Language Arts
B. 4.1, B.4.2, B. 4.3
Environmental Education
A.4.4

Activities:

Lesson 4, Day 1/Activity 1.

1. I would explain what actually the students will be doing, and how they are to do it. I will explain the whole lesson. That after they observe an area of land, the class will be making a book to share with other classes in different areas of the country. (I would hope to find teacher(s) in Puerto Rico to do an exchange with, but also teachers in other parts of the continental US.
2. The students will be working in their groups and carefully observing a plot or area of land. In that area the students are to find at least 8-10 species of plants or animals. They are to write down a description, make a sketch or drawing of the species, and take a picture of each species they are going to work with. Then using the field guides they are to identify or label the species, using the vocabulary words and also find the name of the species. (If they can not find the species in the teacher-made guide then **we** will use the other guides that I used as references). I will explain to the students that they are to look carefully, looking up, down and carefully at the ground. Looking for species that they don't think all the other groups will find, with out missing the large, obvious objects—the trees. They also will be told that they cannot remove any objects from the area or damage the area. (In fact I would not even let the students enter the plot until the second day.) The first day the groups will each be given 15 minutes to locate, describe and draw 8 species. After they have had their 15 minutes they can work on their sketches, descriptions and identifying the 8 species. While they are waiting to have their turn the group can decide who will do what for the final project of the book.

Lesson 4, Day 2/Activity 2.

1. On this day the students in their groups will get another chance to observe the plot for 10 minutes. During this time they can make better sketches or write down better descriptions in order to identify the species, and take photos if they haven't already. This is also a time to decide what species the group will choose to work on and assign who should do what. This time could also be put to good use planning their sentences etc....

Vocabulary

Ferns: A group of plants that have roots, stems, fronds (compound leaves) but no flowers.
(Small Plants)

Trees: A large perennial plant with a woody trunk, branches, and leaves.
(Oak or Birch)

Insects: A small invertebrate (no backbone) animal with 3 body parts; head, thorax and abdomen. It also has 6 legs, and usually 2 wings.
(Fly)

Reptiles: An animal that is cold-blooded with dry scaly skin and a backbone.
(Grass snake)

Amphibians: An animal that lives on land and in the water.
(Salamander and toads)

Birds: A vertebrate animal of warm blood covered with feathers and usually can fly.
(Hawk)

Lesson 5, Day 1/Activity 1

1. The students will be working in the classroom; the first task will be to each sign up for 1 species to work on. As a group they will be responsible for 4 pages of species, one species per a page. If one group member is more artistic and prefers to draw and that is all right with all the group members then he or she may do a trade of the drawings for help with the writing portion of the pages or visa versa. Then they will "create" their rough drafts for the instructor's approval. Must have the picture, sketch and complete sentences. This is also the day that we will need to use the computer to print out the pictures.
2. On the second day of Lesson 5 the students will need to complete the final draft. This will include a drawing and a photo of the species and also the sentences. There must be at least 2 sentences. The framework should be the same for all the pages. I suggest...
This plant is a fern. It is a Lady Fern and lives on the ground.
This insect is a Carpenter Ant. It lives in the ground, under the tree.
This bird is a Blue Jay. It lives high up in the Oak tree.
Upon completion of all the pages the instructor will make the necessary copies. (One copy for the classroom, and 1 copy for each of the exchange classrooms.)

Conclusion:

Assessment:

The students will be assessed on how well they worked in groups.

How well they completed the assignment using a rubric.

Are they able to apply the vocabulary terms. Meaning if they saw a snake would they know that it is a reptile?

Adaptations:

This lesson could easily be adapted many ways. One thing I would do is to have all the students type up their sentences in a certain font and size. Then add the photo and drawing. If doing an exchange with students from another area of the country and they do not have an area to plot out. The students could just use species of plants and animals that are native to their area. It would still be an educational experience. Older students could also do these activities, but just have them create a more detailed book, more informative and also each doing research on more than one species. This activity would work well for a summer school enrichment activity.

References

This activity was loosely based upon an activity that I was involved in while visiting El Yunque Caribbean National Forest in Puerto Rico. The Instructors were Victor Cuevas Padro` and Blanca I. Ruiz. Resources for "field guides" are ...

Field Guide to Wild Herbs Rodale Press, 1977

Any of the various A Golden Guide Books

In Woods and Fields-Abingdon-Cokesbury Press, Margaret Waring Buck

An excellent resource and stepping-stone for other sites: www.wisconsinflora.com