A Look at Woodrow Wilson School Animal Life and Vegetation

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"Even in my small New York City apartment I can pause to listen to birds sing, find a tree and watch it."

- Gloria Jean Watkins, "Touching the Earth"

INTRODUCTION

At the present time I am a first grade reading teacher; the unit that I am envisioning will be part of the reading curriculum, but also will integrate social studies, math, and science. At the end of this new learning experience, I hope to make my students aware of their surroundings and of what they can do to help preserve the environment.

I believe it is very important for my students to understand the ecosystem of which they are a part. By studying the area surrounding the school, my students will understand the role they play, enabling them to respect and take care of their environment. I want them to understand the importance of respecting animal life and preserving natural vegetation.

I have taught for 10 years in lower elementary grades ranging from the pre-K level to fifth grade. I have noticed that ecological themes are too general and abstract for my students to understand. Usually the curriculum involves animals and plants that are not found in the area. This makes the material hard for my students to grasp.

I have found this seminar very interesting because I have been able to acquire knowledge about Houston's climate, vegetation and the types of animals that live here. By learning this I have been able to create a unit that will make it possible for my students to learn, research, and experiment in their surroundings. Learning through experience will make their knowledge vivid and concrete, not something abstract and unrelated to them.

I believe that, by using our own school back yard as our classroom, the knowledge will be meaningful and important for them. "Hands-on" work will allow my students to touch, smell, observe, and record vivid and real images of local flora and fauna. I believe field investigation will create students who will care about their environment and surroundings. I hope it will make the students understand the importance of the ecosystem in our world and know that every single animal and plant is important for a habitat. I want to encourage inquiring minds so that each student understands the connection between cause and effect and knows that every single action has a reaction in our habitat. I want to expand their knowledge about their ecosystem a little farther than

our usual "Earth Day." I want them to understand that taking care of our environment is important not just because a teacher or parent says so, but because it is their choice to do so and it is the right thing for their surroundings.

I was born in Monterrey, Nuevo Leon in Mexico. I was lucky enough to live in an area close to a river. One of my fondest memories is walking after a rainy day through the stream observing the wild life and vegetation in that area. It usually didn't include exotic animals or rare species of plants, but it was a great adventure for my friends and me to walk around the river rocks and swim at the end of the stream. Our favorite pastime was to collect tadpoles and record and observe their changes for science experiments.

Many years, I spent summers in the United States practicing my second language. My summers were spent in a camp called Camp Madison, which was located close to Houston. Some of my most wonderful experiences and vivid memories come from spending summers in this camp, where we were taught outdoors. I believe that these great experiences built part of my beliefs and taught me the importance of preserving the ecosystem. I learned to respect and interact with animals and plants different from those in my own hometown of Monterrey, Mexico, were the climate is dry and arid.

I want my students at Wilson Elementary to have the same good learning experiences with their natural surroundings.

I have noticed that my students hardly have any opportunity to interact with nature. They usually live in apartment complexes, and their parents are too busy working to provide recreational activities for them; thus, the only contact some of my students have with nature is in our own school park. My students usually spend their afternoons watching television or playing inside their apartments. I personally believe that it will be a great opportunity for them to learn to see our schoolyard as a learning experience, a way to expand their love for nature and animal life.

Even though the types of mammals, insects, and birds that are found in our surroundings or nearby habitat are sometimes called "pests," I think they are interesting to study, and I like to learn more about them. I usually see my first graders wanting to learn more about squirrels, ladybugs, and common birds that are found around our school. As a teacher, I recognize that their curiosity is a valuable tool for focusing their attention and encouraging their participation. Learning about these animals makes the experience concrete and easy to understand.

The animal populations around the school are adaptive; they have adjusted to our presence and they can be found in many habitats. Human beings have created an environment ideal for these animals. You can spot rabbits, deer, raccoons, sparrows, robins, and of course squirrels everywhere. Students are familiar with these mammals, insects, and birds, and this is a great opportunity to introduce my students to

environmental issues and to start building the background for good ecological citizenship so that they will understand the importance of the respecting life and will be conscious about the effect humans have in our environment. We will also use the nearby Spark Park.

UNIT BACKGROUND

This will be a yearlong unit divided in four quarters, each of which will focus on a different aspect of vegetation or wild animal life in Houston. Each quarter is divided into nine weeks. This unit will be taught through the next school year.

One of the main goals of this unit is to blend the experience of field study with that of children's literature. Each section of the unit will begin with a story that will be associated with a hands-on activity planned for a period of nine weeks. The stories can be fiction or non-fiction literature. At the end of each section, we will have a small project related to the theme. When we conclude the unit, I would like to invite a guest speaker related to any environmental field. As a celebration for the end of the unit, the students will plant a tree in our school backyard. The type of tree will be determined later and will depend on the resources I am able to find.

UNIT TOPICS

Habitat

Part one of this unit will be titled "Habitat." The children's literature for the first theme will be *City Mouse and Country Mouse*, a classic fairy tale by Isabelle Chantellard (Illustrator) and a storybook about the adventures of two mice cousins. One from the country and one from the city, the two mice visit each other and find out that they each one likes his own life better. I believe this is a great story to use to compare and contrast the differences between living in a big city and the lifestyle people have in small towns. All of my students' families come from small towns where their families were involved in some kind of local farming activities. My students usually tell me stories of chores and activities they had at the farm or "rancho" in their Latin American country.

The main goal for this section will be to understand what constitutes a habitat. A habitat is the place where an animal lives. It provides the animal with food, water, and shelter – everything it needs to survive. We will also study the habitat that surrounds the school area and study the birds, vegetation, and animals in this habitat. We will do two projects for this part of the unit.

The first project explores the basic needs animals and humans required for survival. It is important for my students to understand that all forms of life – from humans, to cows, to bears, to flowers – need certain things to live. Survival depends on getting

enough food, water, shelter, and places to raise their young; a good habitat provides these things.

We will brainstorm and discuss what humans and animals need to be able to survive. We will create a list of basic survival needs for animals and humans and then take a walk in our backyard and draw an animal and its shelter.

Our second project in this section will be to leave a couple of flower pots upside-down, each with one edge propped up, in five different areas of Spark Park. Later, we'll go back and see what kind of animals may have made these pots their habitat. "Mini beasts like slugs and snails prefer a habitat that is dark and damp" (*The Kingfisher First Animal Encyclopedia* 71).

Our third project for this section will be to design a birdhouse using recycled materials such as plastic bottles, paint, and milk or juice cartons and the students' creativity. This project will be done in groups of five. We will post the birdhouses around our school backyard.

Vegetation of Houston

Section two will be titled "Vegetation of Houston." In this part of the unit, the children's literature book will be *The Legend of the Bluebonnet*, written by Tomie dePaola. It is a storybook about the legend of how the bluebonnet became the Texas state flower. I would also like to collect poems about flowers and other aspects of the natural environment, which will allow students to be exposed to other types of literature.

Here I will share with my students a very special poem that was written by my paternal grandmother. This poem expresses her feelings about a caged bird. It was published in 1961 in a book titled *Difícil Luz*, a book that contains a small collection of poems about nature.

A UN PAJARO

Oi turbada la cancion que antes
Escuche libre en arboles de fuego,
En el pico era ya perdido ruego
Y queja de crepusculos distantes

Preso en el ala el vuelo- agonizantes
Los amores de luz y ritmo ciego
Senti llegar la voz a que me entrego
Arrastrada por lagrimas errantes.
Indefenso en la jaula, salta y trata
Golpeando el cuerpo leeve en los barrotes
De hallar camino hacia la cumbre grata.

Perdido en el dolor de su figura
Sueña con bosques de amarillos brotes
Y con lluvia y con el sol en la espesura

Juanita Soriano – *DifícilLuz*

We will research and study what types of vegetation are common to Houston and briefly explain the Houston's dissimilarities from other areas. Texas is made up of four major land regions. The Coastal Plain, where Houston is located, "covers about forty percent of the state. It includes the coastline and its beaches" (Craats 8). A coastal plain is low, mostly flat land that lies alongside the ocean. The part of the Coastal Plain that is in Texas is called the Gulf Coastal Plain.

In this section, an important objective to consider will be the study of plants, plant parts, flowers, fruits, cones, how seeds are scattered, and how a plant develops and grows from a seed to a plant. This is a basic objective that the state requires teachers to cover in the science curriculum for first grade, and it is important basic knowledge for my students to be able to understand living and non-living things.

Most plants have three main parts: the roots, stems, and leaves, which help plants to live and grow. The part of the plant that is in the ground is called the root. Roots hold plants in the soil. The tips of roots are covered with tiny root hairs. These root hairs take in water from the soil. The water and soil contain minerals. Minerals are substances that plants need in order to grow. The water that is taken in by the root hairs carries the needed minerals.

The stem is the part of a plant that helps hold up the plant. The stem carries water and minerals from the roots of the plant up to the leaves. The stem also carries food from the leaves down to the roots. The part of the plant that is easiest to see is its leaves. Most plants have green leaves.

Another of my objectives is to raise concerns about changes in the environment and how they affect plants; we will also look at the importance of taking care of them. In this section I will introduce vocabulary related to environmental issues. For example, I will discuss conservation: " Many animals are in danger of dying out, or becoming extinct. This may be because their habitat has been destroyed or polluted, or because they have been hunted. It is important for us to conserve these animals and their homes" (*Kingfisher Animal Encyclopedia* 39).

We will also discuss litter and how it pollutes the environment. It is dangerous to animals; they can get trapped inside plastic bottle holders, empty cans, and bottles. We will look at some specific animals and dangers. This is an essential part of the curriculum to expand my student's knowledge about the environment.

Since our school backyard is full of azaleas, this will be a flower that we can study and observe. "Azaleas are the genus Rhododendron, with evergreen azaleas in the subgenus Tsutsusi and deciduous azaleas in the subgenus Pentathera. You can usually distinguish azaleas by their leaves: azalea leaves tend to have hairs parallel to the leaf surface, usually along the midrib on the underside of the leaf, and they tend to be thinner,

softer and pointed" (*Azalea Society of America*). This information is strictly for the teacher notes.

My students will also learn about the bluebonnet. "A hardy annual native to Texas. Adopted as the state Flower of Texas, this is the most commonly seen variety along roadsides and in uncultivated pastures throughout the state. Flowers are densely arranged on a spike with a characteristic ice white terminal tip" (*Wildflower Reference Guide and Seed Catalog* 41)

For our first section project we will be looking for and collecting different materials that we call "trash," and together will try to find uses for them. This hands-on activity will help students visualize the importance of "recycling."

As part of our second project, my first grade students will collect a flower and study the parts of the azalea flower (pistil, petals, stamen).

Since the bluebonnet is the official wildflower of Texas and grows close to Spark Park, our third project will include planting and taking care of a bluebonnet flower. I would also like to connect this activity with local folktales written by Tomie DePaola. Bluebonnet flowers will be grown from seeds as part of this project.

Our fourth project or activity for this section includes a science experiment that involves food coloring and celery sticks. This experiment enables my students to understand how a plant "eats."

Another activity planned for this section of the unit is to take a field trip to collect litter in a park, because this is an excellent way to help animals. It is also an excellent example for my students to see how important is not to litter in the streets.

At the end of the second section of the unit, we will visit the Arboretum and learn about Houston's vegetation.

Birds Around our Park

Section three of the unit will be titled "Birds Around our Park." In this section of the unit, students will learn about two very common birds, the Sparrow and the Robin. Since we have sparrows that have built nests in our school's backyard, we will also discuss what the birds need to survive and what materials they use to build their nests.

I would like to use this section to introduce encyclopedias to my students. I have noticed many of my students have never seen an encyclopedia; I believe it is an excellent source to use to find information. I think that is extremely important to introduce students to resources available in libraries in the Houston area. The title of one

encyclopedia is *The Kingfisher First Animal Encyclopedia*. The students will also have to research information from websites to document their information.

Sparrows are small birds that are found all over the world. "Seeds are their main food, but they feed insects to their young. There are around 50 species in North and South America alone. House sparrows live mostly in towns and cities in small flocks near houses. They have a twittering song and will often fight among themselves. The song sparrow of North America has a very tuneful song. Young song sparrows learn their song in the fall and sing them the following spring" (*Kingfisher Encyclopedia* 137).

Robins are slightly larger birds. I find them very interesting because they are common around our school backyard and my students always want to learn about the bird that "has an orange chest."

"American Robin Turdus Migratorius, length 8.5 inches. Their color black to dark gray head, broken eye ring, dull red breast and belly, white under tail coverts, gray upper parts, streaked throat, thin yellow bill. Common in residential areas where it often forages on lawns. In fall and winter, it can be found in large, somewhat nomadic flocks in areas with lots of fruiting trees. Often sings very early in the morning" (Robbins).

I think it will be very exciting for my students to be able to name a bird and know its characteristics; students will feel knowledgeable about a theme that is fascinating and appealing to people of all age groups.

As a final project for this section, we will write, edit, and publish a classroom book about robins and sparrows. My students will also use a digital camera to take pictures of the birds around our school backyard. This will also be extremely useful for our writing class.

Mammals

Section four will be titled "Mammals." The children's literature book will be *Tale of Squirrel Nutkin* by Beatrix Potter. This book explores the story of how a rude and misbehaving squirrel learns a lesson.

In this section we will learn about mammals through two common inhabitants of this area: squirrels and deer. Squirrels can be found in our park, so my students can observe and record their life behavior.

"Mammals are a group of animals that include humans. They are warm-blooded vertebrates and are found all over the world: in the water, in the air and on land. There are 4,000 species of mammal, and they all have certain features in common. Mammals can be carnivores (meat eaters), herbivores (plant-eaters), or omnivores (meat-and plant-

eaters)" (*Kingfisher Encyclopedia* 90). Classifying mammals and other types of animals is information required for first grade students to understand the animal kingdom.

Because mammals are warm-blooded, they keep the same body temperature no matter how hot or cold their surroundings. All mammals feed their young on milk produced by the female.

As mentioned above, the first animal we will observe will be the squirrel. After locating the squirrels' habitat in the school park, the students will observe this mammal for a period of a week and records their observations in their science journals. I hope that after completing this part of the unit students will have more respect for the animals found in their nearby environment.

Squirrels belong to the order *rodentia*, which has 1650 species; it is the largest group of living mammals. It also comprises 40 percent of all present day mammal species. There are over 365 species of squirrels in seven families. They include the tree squirrel, the ground squirrel, and the flying squirrel. Plus, there are many squirrel-like mammals such as the gopher, the ground hog, and the prairie dog. (*The Squirrel Place*).

Squirrels are the most active in late winter, when mating season begins. The males will chase females, as well as chase off other suitors. This ritual of chasing occurs through the trees at top speed. The period of gestation varies from 33 days in the smaller species of pine squirrels, up to 60 days for the larger species such as the common gray and fox squirrels. Squirrels are usually born in the early spring. The average litter consists of four. This varies with climate and location. A second litter can occur in mid summer if there is an adequate food supply. A female squirrel will choose the strongest male during mating season, but is unlikely to breed with that male again. A baby squirrel weighs approximately one ounce at birth and is about one inch long. They do not have hair or teeth, and are virtually blind for the first six to eight weeks.

Gray squirrels come in many colors. Shades of gray are the most common followed by shades of brown. There are also pure white and pure black squirrels, but both are variations of the gray squirrel.

The common red squirrel can have an all black coat, while the Kaibab squirrel has a black body with tail. Both are found in coniferous forests.

In the summer, squirrels are most active two to three hours after sunrise. Then, they'll rest in the afternoon, resuming activity again two hours before sunset. The squirrel will retire to its nest well before dark, and will rarely leave the nest in the dark. In the winter, the squirrel will complete its activities between dawn and midday, and will remain in or around the nest until the next day. During winter storms or severe cold, the squirrel may not leave the nest for days. The tree squirrel does not hibernate.

An adult squirrel normally lives alone but will, in severe cold, share its nest with other squirrels to conserve body heat. Once the temperature rises, the guests will be on their way.

"Squirrels' eyes are located high on each side of their heads. This allows them a wide field of vision without turning their head. The gray squirrels' diet consists of nuts, seeds, and fruit. It will eat bird eggs, bugs, and even an animal carcass if there is no other food source available" (*Controlling Tree Squirrels in Urban Areas* 1).

Squirrels chew on tree branches to sharpen and clean their teeth. That's why you may see many small branches on the ground around large trees. They will also chew on power lines for the same reason; this has caused many major power outages throughout the country.

"Squirrels communicate through a series of chirps. The frequency, and the duration of the notes communicate everything from laughter to alarm. Their frequency range is normally between .01 KHz and 10 KHz (kilohertz). These sounds when used in conjunction with tail gestures form the basis for squirrel communication." (*The Squirrel Place*).

I do not expect the students to remember all the facts. Students need to be exposed to this factual information to be able to understand the lifestyle of the squirrel and its reaction to its environment.

Even though the next animal we will study is not found in our school park, it is a very common mammal of this region. The other mammal that we are going to study is the deer; my students will get exposure to this mammal in our last project for this unit.

Deer can be found around the world. They are native to every continent except for Australia and Antarctica. There are about 100 types of deer, all of which have some characteristics in common. Deer are members of the order Artiodactyle, which simply means that they have hoofs with an even number of toes. Like cows, sheep and goats, deer are ruminants. Rumination is a process that some animals have adapted to increase the efficiency of plant material digestion. Ruminant animals have a special stomach that has four chambers. The Rumenis the first of this four chambers. Inside the Rumen are bacteria that produce an enzyme that can break down cellulose. When food is ingested it first enters the Rumen chamber. There the bacteria produce the enzymes to help break down the food. The food that is broken down can then enter the blood stream of the animal and be used by the rest of the body. The material that is not completely digested becomes "cud" and is brought back up into the mouth where it is rechewed and swallowed again.

Deer are the only nearby animal species that possesses antlers.

> All except the Water Deer (and musk deer) grow antlers – horns that are shed each year and replaced by new ones. When the first grow, the antlers are covered in a soft velvety skin. The velvet, as it is called, dies when the antlers reach full size and it comes away in red tatters. The size of the antlers indicates the age and experience of the stag. (*Wildlife and Plants of the World)*

It is a very interesting fact that the deer population has not been reduced by humans, but has increased dramatically. At the turn of the century, the deer population was less than a million. Since the growth of human population, the deer population has increased to 25 million. This increase in population was caused by the improvement farmers have made to the deer's habitat by cultivating fields. By cutting down areas of woods for fields the deer were provided with a much larger food supply, unlike the thick woods, which provide very little light for smaller plants to grow.

For the final project of this section, we will visit the Houston Zoo and interview a zookeeper to find out what type of care these animals need to survive and if there are any animals on the endangered species list. Students will write an article and we will publish it in the classroom newspaper.

IMPLEMENTATION STRATEGIES

The lessons will be aligned with Project Clear curriculum, which are the age appropriate objectives standards that need to be covered for the school year.

This yearlong unit is intended to be use for the reading curriculum in my classroom. It will also integrate science, social studies and math. The lessons will focus on the TAKS objectives listed below:

- SS TAKS 1.11 The students develop an extensive vocabulary
- SS TAKS 1.10 The students reads widely for different purposes in varied sources.
- SS TAKS 11.6 Geography. The students understand various physical and human characteristics of the environment.
- SS TAKS 11.7 Social Studies Skills. The students apply critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology.

I want this unit to be full of meaningful and interesting, and full of "hands-on" activities for my students. I want my students to understand how important every animal is in our environment, and how all habitats interact within each other. Hopefully this effort will plant the seed of respect for our environment and develop the students' interest in their surroundings. I believe they will become more conscious about respecting living things.

LESSON PLANS

Lesson 1

This lesson will be introduced with the creation of a school backyard map.

Title of the Unit: Houses and Animal Shelters

Grade Level: First Grade

Objectives:
The student develops an extensive vocabulary. (TAKS 1.11 A)
The student reads widely for different purposes in varied sources.(TAKS 1.10 A.B)
Students will identify and describe the physical and human characteristics of places. (TAKS 1.13.3b.1.6)
The students collect and sort data. Process Skills (TAKS 1.11.A.,1.12.A., 1.13.A.)

Materials Needed:
Pictures of different homes for people and animals.
Poster board
Manila paper
City Mouse and Country Mouse, a classic fairy tale.
The school backyard, located in Fairview.

Procedure:
The lesson begins with a discussion about houses, shelters, and lifestyles of animals. I will fill out a KWL chart to explore prior knowledge of my students about the theme. We will locate the schoolyard on a neighborhood map. Next, we brainstorm a list of animals we found around our park. We will also discuss what type of animals we have noticed at night or early in the morning.

I will tell the children that I have a book to share with them called *City Mouse and Country Mouse*. I will explain to them that the book has different styles of living and different kinds of shelters for the animals. I will tell the students that I am going to share the book with them, and then we will go back and discuss the pictures.

I will ask the students what kind of shelters or homes we see around our schoolyard. Also, I will talk about the kinds of animals we have seen in our school.

Each student will be given a piece of manila paper. I will tell the children to think about the kind of animal shelters or homes they have seen around our school. I will tell them to try to picture in their heads an animal shelter. I will discuss and let them notice, by looking at the pictures, how different every shelter is and the relation this has with the environment that surrounds the animal.

We will take a walk outside our schoolyard and find possible shelters for squirrels and birds. Students will draw the schoolyard, the trees, the classroom, and the main buildings. We will mark houses for birds, squirrels, and ants.

I will explain to the children that we are going to make a class book with our school maps. I will explain to my students how important it is that their picture shows a lot of detail. I will explain to the students that after they are finished they need to think of a sentence that describes something about their map. I will write a sentence that the children tell me.

After everyone has finished his/her picture, a circle will be formed and students will share their maps. Each student will show his/her picture and describe the illustration.

Evaluation:
The students will be graded as follows:
1= On task, participating, following directions, draws a picture of the school map, and is able to describe their picture.

2= On and off task, only a little participation, doesn't finish drawing the picture and cannot describe his/her drawing.

3= Off task, not participating or following directions, refuses to draw and describe their work.

Closure:
After a brief recap of the lesson, we will discuss and brainstorm what we have learned. I will write the ideas in the KWL chart. We will discuss our learning experience and check if all our initial questions about animal shelters were answered. We will determine what material we need to research for our next activity. Each student will write a journal entry summarizing what he or she has learned.

Lesson 2: Vegetation of Houston
This lesson should be introduced in the springtime, when azalea flowers are blooming in the Houston area.

Title of the Unit: Parts of a Flower

Grade Level: First Grade

Objectives:
- Learn about the parts of a flower. (1.1: A; 1.2: A, B, C, D, E)
- Identify the structure and function of the flower. (1.2: A, B, C, D, and E)

Materials Needed:
Illustration (Azalea flower)
Pencil
Colors, crayons
Manila Paper
Azalea Plant
Science Journal

Procedure:
This lesson will begin with a discussion about the plants and trees that surround our school backyard. I will pull out pictures of azalea flowers and share them with the students. I will fill out a KWL chart to explore prior knowledge about plants and flowers.

I will have to introduce new vocabulary words like pistil, petal, and stamen. I will make vocabulary cards and a picture of an azalea flower. I will place the cards in a bag and, with the help of my students, we will locate the flower parts in the drawing.

After talking about the parts of a flower, we will walk around the schoolyard and pick one azalea flower.

I will tell my students to draw the flower in their science journals and write the parts of the flower on their pictures. My students are going to learn the parts of an azalea flower and how this specific plant changes and grows.

After we finish this activity I will organize my students into small groups so they can brainstorm ideas to describe the flower and the azalea plant. Then they will write a sentence that describes the plant.

After we finish the activity, my students will have to collect a different flower to compare the parts of the other flower with the azalea flower. This part of the lesson plan is for my students to understand that different flowers might look different, but the main parts are the same.

After everyone has finished his/her picture, a circle will be formed and students will share their pictures and discuss what they have learned.

Evaluation:
The students will be graded as follows:
1= On task, participating, following directions, draws a picture of the azalea flower, and is able to describe their picture.

2= On and off task, only a little participation, doesn't finish drawing the picture and cannot describe his/her drawing.

3= Off task, not participating or following directions, refuses to draw and describe his/her work.

Closure:
After a brief recap of the lesson, we will discuss and brainstorm what we have learned. I will write the ideas in the KWL chart. We will discuss our learning experience and check if all our initial questions about flowers were answered. We will determine what material we need to research for our next activity. Each student will write a journal entry summarizing what he or she has learned.

Lesson 3

Title of the Unit: Different types of bird nests.

Grade Level: Kindergarten and First Grade

Objectives:
- Identify the schoolyard as a habitat for birds. (1.2: A, C, D, and E)
- Classify bird nests. (1.1: B)
- Identify birds that live around our schoolyard. (1.2:A, B, C, D, E)

Materials Needed:
Magazine about birds
Poster board
School backyard
A bird nest
Pictures of nests

Procedure:
The lesson begins with a discussion about different kinds of nests. I will fill out a KWL chart to explore prior knowledge of the theme. After studying different pictures with nests of birds from around the Houston area, we will brainstorm a list of materials that birds use to build their nests.

We will walk outside to our school backyard to collect materials found there. Some examples might be branches, leaves, strings, etc. In big containers, I will classify the material that the students have gathered. I will ask my students to also bring from home paper cups, milk containers, orange juice plastic, and paper containers. I will divide the students into groups of five. I will ask my students to think of what type of materials we can use to build a birdhouse and to draw a design of a birdhouse. As they build their houses, they need to think about the materials they have chosen. After my students have built their birdhouses, we will find nearby trees on which to hang them.

My students and I will monitor the houses to see if any birds have decided to use our nests as their new home.

When my students are done, I am going to ask them to write in their science journals about the nest that their team built.

Evaluation:
The students will be graded as followed:
1= On task, participating, following directions, is able to work as a team member, shares ideas.

2= On and off task, only a little participation.

3= Off task, not participating or following directions, refuses to share and can't work as a team member.

Closure:
After a brief recap of the lesson, we will discuss and brainstorm what we have learned. I will write the ideas in the KWL chart. We will discuss our learning experience and check if all our initial questions about bird nests were answered. We will determine what materials we need to research for our next activity. Each student will write a journal entry summarizing what he or she has learned.

ANNOTATED BIBLIOGRAPHY

Teacher Resources

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A guide for identifying birds, this pocket book includes pictures and information about birds common in the United States.

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