

## **Connections**

### **Science**

#### **Grade 4**

#### **Objectives:**

**1.01** Observe and describe how all living and nonliving things affect the life of a particular animal including:

- Other animals.
- Plants.
- Weather.
- Climate.

**1.02** Observe and record how animals of the same kind differ in some of their characteristics and discuss possible advantages and disadvantages of this variation.

**1.03** Observe and discuss how behaviors and body structures help animals survive in a particular habitat.

**1.04** Explain and discuss how humans and other animals can adapt their behavior to live in changing habitats.

**1.05** Recognize that humans can understand themselves better by learning about other animals.

**Activity 1:** This activity will tie in social studies and science. This is the first activity that the children will start their unit on. The teacher will need to provide enough copies of the information “Who’s Afraid of the Big Bad Wolf?” from the internet site <http://www.fws.gov/nc-es/edout/albewolf.html> .The students need to read the information and then match the facts with the lore. This will be a great way for the students to be assessed about the information on wolves before we began the full unit plan. The students would also receive a copy of the North Carolina map and the students would need to try to divide the regions of North Carolina. The students would choose where the coastal plan of North Carolina and locate it on the map. This would show where the wolves most likely are to live in North Carolina.

Internet: [www.fws.gov/nc-es/edout/albewolf.html](http://www.fws.gov/nc-es/edout/albewolf.html)

Albemarle- Pamlico Environmental Education Activity Kit

United States Protection Agency

This sheet is to be used by the students to complete the location of the regions of North Carolina, and to locate where the wolves would be most likely to live.



### Regions

- [Coast Region](#)
- [Heartland Region](#)
- [Mountains Region](#)

Geographically, North Carolina is divided into three parts: the [Coast Region](#) on one end, [Mountains Region](#) on the other end, and the Piedmont plateau, or [Heartland Region](#), in the middle.

The coast of North Carolina was the site of one of the most momentous events in the history of technology: the flight of the Wright Brothers' aircraft, at [Kitty Hawk](#) in 1903. But Kitty Hawk aviation history is only a tiny fraction of what the North Carolina coast has to offer. The three capes on the coast -- [Cape Fear Coast](#), [Cape Hatteras National Seashore](#), and [Cape Lookout National Seashore](#) -- lure vacationers from around the world; Hatteras and Lookout are designated National Seashores. In the north, the [dismswam] is a favorite of naturalists.

On the opposite end of the state, the Great Smoky Mountains rise through the smoke-like haze which gives them their name. One of the best ways to appreciate the mountains is by taking a drive on the scenic Blue Ridge Parkway, which connects the [gsm] with [shennapk] in [North Carolina](#). Great Smoky Mountains National Park is the nation's busiest, drawing 10 million visitors each year, twice as many as the runner-up.

In between the coast and the mountains lies the Piedmont plateau. The Piedmont is where most of North Carolina's population is settled; cities include the state's largest urban area, [Charlotte](#), and the "research triangle" of [Raleigh](#), [Durham](#), and [Chapel Hill](#), so named because of the universities housed there.

With several hundred courses to choose from, North Carolina lives up to its billing as the "Golf Capital of the World". The courses are spread throughout the state, and range from

immaculately sculpted coastal gems to rugged mountain courses with challenging elevation changes and stunning views. Three hundred courses in the neighboring state of South Carolina add to the variety

Internet: <http://www.ohwy.com/nc>

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**Objective:**

**2.05** Discuss and communicate the uses of rocks and minerals.

**2.07** Identify and discuss different rocks and minerals in North Carolina including their role in geologic formations and distinguishing geologic regions.

**Activity 2:**

Block Center and Group Time

The block center is asking children to make brick pattern and continue the patterns. The students would also use the bricks to make a model of an actual brick home. The block time begins by having students gather pictures of bricks laid in patterns- herring bone, basket weave, and banding. Use unit blocks to make a wall like those in the brick house. Start the pattern and challenge children to continue the pattern. Experiment with different patterns and try to determine which provides the most strength.

The Group time activity is having children make samples of the straw, wooden, and brick homes. The students will construct homes to make a sample of the homes from the story *The True Story of the Three Little Pigs*. The group activity lesson ask the students to collect pictures of different types of home construction including, brick, wood siding, metal siding, apartment buildings, and factory build homes. Consider putting together a home design prop box with blueprints, paint color chips, tape measures, pencils, paper, and pictures of home interiors and exteriors. Include photographs of familiar buildings in

your neighborhood or city. Then gather three large cardboard boxes, glue, straw, or dried grass, twigs, and markers. Invite children to cover one with straw, cover one with twigs, and draw bricks on the third. Use the box houses with dolls, (or try to find pigs) stuffed animals, or puppets to act out the story.

Information from: Texas Child Care

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#### **Activity 3:**

Students will compare the impact of different types of disasters on the lives of the people affected by them. Students will create disasters, tying in art with science. The students need to have internet access and various art supplies such as markers, glues, colored pencils, and magazines for pictures of nature, also needing a shoe box for each student. The time requirement for this lesson is three hours; the teacher may decide to make this lesson last for three days (one hour a day).

Internet: [www.nationalgeographic.com/xpeditions/lessons/15/g35](http://www.nationalgeographic.com/xpeditions/lessons/15/g35)

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**Computer and Technology Skills**

**1.03** Recognize, discuss, and use responsible, ethical, and safe behaviors when using technology resource.

**1.04** Recognize that Copyright Laws protect creative work of individuals/groups/companies by citing source.

**3.07** Locate, select, organize, and present content area information from the Internet for a specific purpose and audience, citing sources. (6)

**3.08** Use a rubric as a guide to select and evaluate digital resources and information for content and usefulness in content area assignments as a class. (6)

**Activity 4:** Students will go on line to find out information about wolves and pigs. The students will look for information about the animal's habitat, eating, life expectancy, size and speed, and the type of environment they live in.

Four internet sources are:

[www.freewebs.com/animaldog/index.htm](http://www.freewebs.com/animaldog/index.htm)

[www.cosmosmith.com/wolpage.html](http://www.cosmosmith.com/wolpage.html)

[www.units.muohio.edu/dragonfly/com/index.htmlx](http://www.units.muohio.edu/dragonfly/com/index.htmlx)  
[www.wolfcountry.net/information/WolfObserved.html](http://www.wolfcountry.net/information/WolfObserved.html) [www.wolfweb.com](http://www.wolfweb.com)

For pigs the students can go to the following:

<http://thelinery.com/blog/?p=146>  
[www.ncdp.org/north\\_carolina\\_democrats\\_clean\\_water\\_clean\\_air](http://www.ncdp.org/north_carolina_democrats_clean_water_clean_air)  
[www.northrup.org/photos/animals-other](http://www.northrup.org/photos/animals-other)

The students will have a sheet to complete while they are finding information on the pigs and the wolf. The students will have to turn in the sheet at the end of the assignment to receive credit for the internet sources and information.

There are multiple internet sources used, the main information came from the internet site: [www.wolfcountry.net/information/WolfObserved.html](http://www.wolfcountry.net/information/WolfObserved.html)

Unknown authors

### Questions For Students:

1. What is the size of a wolf? A pig?
2. What does the wolf eat? The pig?
3. What type of environment does the wolf live in? A pig?
4. What is the life span of a wolf? A pig?
5. Name three different types of Wolves? Three types of pigs?
6. How does the wolf communicate? Can pigs?
7. What is the body structure of the wolf? The pigs? (Skin or fur, their bone structure)
8. Compare the paw structures of the wolf and the pig. How are they similar and how are they different?
9. Tell me three facts about a wolf, (that has not been answered in the other questions.) A pig?
10. Tell me what your favorite animal is and why. (Write a one page minimum on your favorite animal)

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**Activity 5:** This information is for the students to read and find out information at pigs. The students will learn about the different types of pigs, and ways they are different by height, weight, colors, and size. The information comes from the internet site [www.cppa4pigs.org/Types.html](http://www.cppa4pigs.org/Types.html) . The students will read about thirteen different types of pigs and the areas the pigs come from.

The internet site: [www.cppa4pigs.org/Types.html](http://www.cppa4pigs.org/Types.html)

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**2.01** Describe and evaluate the properties of several minerals.

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#### **Activity 6:**

The teacher will need the red paint and the Crayola molding clay to complete the second part of the lesson.

This activity is for students to read about brick, to learn about the past and how bricks are made. The students will read the information; this will give the students background knowledge on making bricks before we go on a field trip (try too). The students will then try to do a science experience on making bricks. The information comes from [www.shol.com/agita/thespiel.htm](http://www.shol.com/agita/thespiel.htm) . The students will learn about the five steps to making bricks too from the handout provided by the teacher and the internet site [www.shol.com/agita/thespiel.htm](http://www.shol.com/agita/thespiel.htm). The first step for making bricks is winning; the second is preparation, third molding, forth drying, and last burning. The students will also have the information to read about to learn about the different structures or types of building homes or offices. The students would use molding clay from Crayola to make the shapes of bricks. The teacher would have red paint for the students to color the mold. The students would use the information form the internet to try to create a brick wall. The teacher would choose the type of brick wall, and the students would make the wall together. The students will also try to have a field trip to Old Salem; this will tie in with Science and Social Studies.

The internet site: [www.shol.com/agita/10houses.html](http://www.shol.com/agita/10houses.html)

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**Activity 7:** The students will have the information to read about the wolf, this will be a reading assignment. The students will learn about the wolves' environment and the way people are involved in the wolves' life. This assignment will show where the wolves live and how man has interacted with the wolves' life. This assignment will be discussed in class after the students read the assignment. The teacher will divide the class and have a debate on how man has affected the wolves' environment. The students will discuss if the effect by man on the wolf was a good or bad thing for the wolf and the people.

Written by: William J Paul and Phillip S. Gibson, pages C-124- c-129, *The Lifestyle of Wolves*.

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##### **Objectives:**

**1.03** Observe and discuss how behaviors and body structures help animals survive in a particular habitat.

### **Social Studies**

##### **Objectives**

**1.01** Locate, in absolute and relative terms, major landforms, bodies of water and natural resources in North Carolina.

**1.02** Describe and compare physical and cultural characteristics of the regions.

**1.03** Suggest some influences that location has on life in North Carolina such as major cities, recreation areas, industry, and farms.

**1.04** Evaluate ways the people of North Carolina used, modified, and adapted to the physical environment, past and present

**Activity 8:** The students will start the lesson by locating the three regions of North Carolina. The students will have a copy of the North Carolina map to locate the regions. The students will then go through the regions and place where the wolves would be most likely to live. The students will tell what type of wolves that live in this region too. The students will then describe and provide information on the wolf. The students will need size, height, weight, life expectancy, paw prints, food, and communication. The students will write the information on a piece of notebook paper and turn into the teacher at the end of the assignment.

The internet site: [www.learnnc.org/lessons](http://www.learnnc.org/lessons)

A lesson plan for Grade for on Informational Skills and Social Studies by Patricia Britt

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#### **Objectives:**

**2.01** Describe and evaluate the properties of several minerals.

**2.02** Recognize that minerals have a definite chemical composition and structure, resulting in specific physical properties including:

- Hardness.
- Streak color.
- Luster.
- Magnetism

**2.04** Show that different rocks have different properties.

**2.05** Discuss and communicate the uses of rocks and minerals.

**2.06** Classify rocks and rock-forming minerals using student-made rules.

#### **Activity 9:**

The students will build smaller homes made of straw, wood, and brick. The lesson will begin by the teacher having information of the three materials; the students will read the information then have a class discussion. The teacher will write the information on the board using a Venn diagram. The students then complete the science experiment in the classroom. The teacher will have the material needed provide by the Lenoir Rhyne Library in the curriculum lab with the kit names Lakeshore Theme Boxes Homes. If you choose to make your own, the kits have the following materials: Six reading books, one stamp pad, eight stacking houses, forty one building logs. Twenty one foam stampers, two soft blocks, one mat with twenty four pieces, one activity guide, and ten animal puzzles.

The names of the books and Authors are:

*Livingstone Mouse* by Pamela Duncan and Henry Cole published 1996 by Harper Collins

*And So They Build* by Bert Kitchen published 1993 by Canlewick Press

*Good bye House* by Frank Asch published 1986 Aladdin Paperbacks

*Homes Around the World* by Bobbie Kalaman published 1994 Crabtree Publishing

*Animal Homes* by Betsey Cheesen and Pamela Chanko 1998 by Scholastics Inc.

*Building A House* by Byron Barton 1981 Greenwillow Books, New York

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#### **Computer and Technology Information**

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**Activity 10:** <http://www.thewonderpigs.com/facts.htm>

Unknown Author

This activity asks students to go to the web site above and read the facts about pigs. The teacher will allow the students to use their computer time during the week to look over this website. The students write down information that they find to be important about pigs. The students will need to know the types of pigs, their locations, and their life styles. The teacher will want at least ten facts about a pig, and a brief summary on the differences between pigs and wolves. We will return to class and have a discussion on

pigs. We will discuss how they are similar to wolves, how they are different. The students will be asked to turn in the sheets from their internet site to the teacher at the end of the discussion.

