



RESOURCES AND THE ENVIRONMENT

Humans Design Their Homes

Written by Barbara Tharp, M.S., Nancy Moreno, Ph.D., and Paula Cutler, B.A.

from *Resources and the Environment Teacher's Guide* and for *Tillena Lou's Big Adventure*.

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This activity is part of the Resources and the Environment teaching unit. The *teacher's guide* may be used alone or with integrated unit components. The Resources unit is comprised of the guide, *Tillena Lou's Big Adventure* (storybook), and two supplements: *The Reading Link* and *The Math Link*. For more information on this and other educational programs, contact the Center for Educational Outreach at 713-798-8200, 800-798-8244, or visit <http://www.bioedonline.org/>

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The activities described in this book are intended for school-age children under direct supervision of adults. The authors, Baylor College of Medicine and the publisher cannot be responsible for any accidents or injuries that may result from conduct of the activities, from not specifically following directions, or from ignoring cautions contained in the text.

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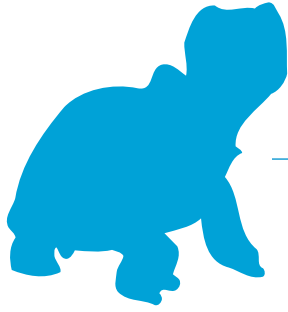
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Humans Design Their Homes

With a variety of materials, students create models of living spaces (houses) for people in different climates with different available resources; can compare the strengths and weaknesses of the different designs.

CONCEPTS

- Most animals require a safe place to rest, to eat or store food, and to reproduce.
- Animals use spaces that they can find and/or adapt natural materials for spaces or shelters.
- Humans use both natural and designed materials to create their living spaces, which serve many purposes.
- There is always more than one possible design to solve a problem.

SKILLS

- Listening
- Communicating
- Applying knowledge
- Inferring
- Identifying patterns

TIME

Setup: 1 hour

Class: 2-3 class periods

MATERIALS (see Setup)

Teacher Materials

- Copy of *The Three Little Pigs*
- Scraps of real building materials to show to students

Materials per Student

- Craft sticks
- Crayons and markers
- Drawing paper
- Glue
- Tape
- Lincoln Logs®, building blocks, sticks, leather or plastic, ice cubes, tent materials (fabric), or Lego® bricks

An “environment” consists of the space, conditions and factors that affect an individual’s and a population’s ability to survive and determines their quality of life. All living things occupy specific environments and, accordingly, they survive only in environments where their needs are met. Animals sometimes use resources in their natural environments to create living spaces (“places to be”) that provide protection from predators or places to raise their young. Birds build nests from twigs, beavers build dens or lodges from sticks and logs, etc. Humans, however, make complex uses of resources to satisfy their needs. These uses include peoples’ houses and most of the objects found within homes, such as appliances and furniture.

Houses around the world differ, based on available building materials and climate. Homes in cold areas must be constructed differently than homes in areas that are hot, dry, rainy, etc. One thing almost all houses have in common is that they are built from materials that are readily available or can be transported easily.

SETUP

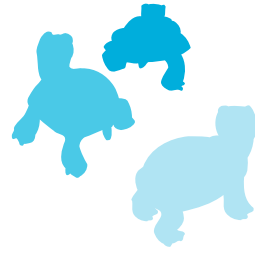
You will need to check out a copy of *The Three Little Pigs* storybook from the library, find a video or text version of the story online, or make up your own version to recount to students. You also will need a variety of building materials to show to students. These can be obtained, with permission, at a building site, or possibly with samples from a hardware/home improvement center. Or you may be able to gather such items from around your house.

Collect building materials for student groups to use when creating their houses, such as Lincoln Logs®, building blocks, sticks, leather or plastic items, ice cubes, tent materials (fabric), or Lego® bricks.

PROCEDURE

1. Read or tell the story, *The Three Little Pigs*. Let students repeat phrases such as “I’ll huff and I’ll puff and I’ll blow your house down.”
2. Ask, *Is this really possible? Could it happen to your house? Why or why not? How is your house alike and different from the pigs’ houses?* Encourage students to think about why their houses might be alike and different from the pigs’ houses. Have students consider the availability of building materials and climate in determining how houses are built. Ask, *Why would the Inuit people build houses of snow and not wood? Why would inhabitants of the American Southwest build houses out of adobe bricks (made from clay and straw)? Why is your home made of lumber or bricks?*
3. Invite students to draw pictures of the three pig’s houses and of their own homes.





4. After they have completed their drawings, ask students to name the materials used in building the different homes they drew. Encourage students to share what they know about house-building materials (for examples, steps made of concrete, exterior of building covered with brick/wood/stucco, windows made of glass, etc.).
5. Discuss the materials houses are made from in your area and in other regions. List or draw materials on the board.
6. Distribute pieces of the building materials you have brought to class to each student or group. Ask, *What might these materials be made from? What might they be used for?*
7. After the discussion, show students the craft sticks. Have the members of each group of students cooperatively plan and build a house of their own design. Each group should decide what kind of living conditions their house would provide and in what climate it would provide the best shelter.
8. Create a class chart to compare the different designs. Have students identify and compare the ways in which the different houses use resources and meet the needs of their inhabitants. Students will display their houses. Consider having students create stories about people who could live in the type of house that they constructed.



EXTENSION

Bring in large boxes for students to decorate as houses or cut windows and doors in very large boxes and allow students to play inside the boxes.