

Rachel Carson Centennial

Instilling a Sense of Wonder *Activity Ideas for Families and Schools*

Rachel Carson was born on May 27, 1907 in Springdale, Pennsylvania where she spent a great deal of time exploring the forests and streams around her 65-acre farm. She once said that she inherited her love of nature from her mother and it was something she always shared with her. Writing was Rachel's other passion. She was first published at the age of 10 in a children's magazine dedicated to the work of young writers.

While she worked for the U.S. Fish and Wildlife Service for 15 years, she is internationally recognized for her book entitled *Silent Spring* that opened people's eyes to the dangers of unregulated pesticide use on our environment and health.

Before her death in 1964, she was working on *The Sense of Wonder*, an expansion of a magazine article she had written in 1957. The article encouraged parents to explore nature with their children and described her own experiences exploring with her nephew Roger. *The Sense of Wonder* was published after her death and continues to inspire parents to get their children outdoors.

National wildlife refuges are great places for families to discover and explore the natural world. Our refuges in the northeast region protect many different kinds of habitat from northern boreal forests to maritime forests; from grasslands to wetlands; from river islands to coastal islands; and from swamps to dunes.

This fact sheet has been developed to provide you with a few simple activities you can do with your children while enjoying your local national wildlife refuge, state park or natural area. It is

a way to remember Ms. Carson during this very special year and to embrace her message of nurturing that sense of wonder in each of us.

Cardboard Binoculars

This is great for practicing observational skills and focusing on small areas.

Materials: two empty toilet paper rolls per child, tape or stapler, string, a hole punch and crayons

Procedure:

Tape two rolls together into the shape of binoculars. Rolls can be colored or decorated before being taped together. Punch holes in the outside edges of each binocular and run a string through so that binoculars can be worn around neck. This is a great introductory activity to get the children excited and prepared for a nature hike.

Scavenger Hunt

Promote the qualities of curiosity and observation. Encourage children and parents to explore the natural world.

Materials: scavenger hunt checklist, small bags optional

Procedure:

Create a scavenger hunt checklist that encourages children to discover the natural world. Web sites with nature scavenger hunts are listed below. Avoid picking flowers or pulling leaves off of trees by encouraging the children to collect fallen leaves, seeds, etc., or draw what they have found. Once the hunt is over, return the items to the natural area.

Scavenger hunt resources

www.wstar.org/hunt.html

<http://gsleaders.org/files/camping.htm>

Camera Game

This activity gets children to consider another perspective.

Procedure:

Have each child find a partner. With the partner's eyes closed, have the child lead the partner to several places in the study area containing items they like or have interest in - a flower, a view, etc. At each spot, the child places their hands on either side of the partner's head pretending the partner is their "camera." They then say "click" and the partner opens their eyes for 5 seconds to see the "image" and then closes their eyes again. Switch roles so the child becomes the camera and the partner the photographer. After all pictures have been taken, as a group, discuss the "images" that were captured.

Shapes and Colors

Look for basic geometric shapes and colors in nature.

Materials: construction paper, scissors, yarn or key ring

Procedure:

Before heading outdoors, have your children cut basic geometric shapes (circle, square, triangle, etc.) from construction paper. To include colors in your activity, use a different colored construction paper for each shape. Punch a hole near the edge of each shape and thread the shapes onto a piece of yarn or a key ring (If you plan to use these a lot, consider laminating before attaching to yarn or key ring.)

With your child or children, pick a color or shape and ask them to find an example in nature. As the shapes/colors are found, discuss what the item is and some interesting information about it.

Animal Homes

Discover some common animal homes to be found in the given habitat. Take a walk to search for homes, and learn about the animals that live there.

Materials: props such as skins, eggs, nest materials, or even live animals

Procedure:

This brief walk can be an introduction to common local fauna for children and parents alike (and can be adapted to almost any area). As an introduction, encourage the group to think of what they like about their homes: comfort, warmth, shelter, protection, etc.

Take the group on a short nature walk, with a goal of focusing on animal homes that can be observed (e.g. nests, webs, holes, water), and what kind of local animals may use such places as a home. At each stop, ask what kind of homes might be present, point them out, and elaborate on what kind of animals might live there. (Have props placed strategically to make the experience more hands on if necessary.) Ask the children why the given animal might want to live in such a home.

Nature Rubbing Books

This activity gives children a chance to explore shapes and textures with creativity. Create nature "rubbing" books for children to take home.

Materials: half-sheets of paper (can be white or light colors), crayons, clipboards, staples

Procedure:

Give each child a crayon, several half-sheets of paper and a clipboard. Take them outside and show them how to make a rubbing (place an object, such as a leaf under the paper, and color over it with a crayon). Encourage them to make their own collection of rubbings, using all surfaces that will work (e.g. leaves, grass, flowers, needles, tree bark, feathers). When they have completed their rubbings, staple the sheets together to make a booklet for them to keep.

Adopt-a-Tree

Study trees closely for better appreciation. Learn what a tree needs to grow. Understand why trees are so important.

Materials: appropriate children's book(s), crayons, half-sheets of paper, staples

Procedure:

Begin by reading a book about tree growth. Some good examples are *The Giving Tree* by Shel Silverstein, *The Acorn and the Tree* by Lori Froeb, or *A Tree is Nice* by Janice May Udry. Ask the children what each tree needed to survive. Why are trees important for us?

Like the nature rubbings in the previous activity, have children go outside and make "tree rubbings." That is, have each child adopt-a-tree and make rubbings of its bark and leaves. If desired, create a book of "my tree." They could draw the tree, write poems or stories about their tree and visit it through the year to see how it has changed - when did it leaf out? When did its leaves change color?

Rotten Log

Discover the variety of animals that use a dead and rotting log on the forest floor. Explore a rotting log with magnifying hand lenses. Discover the small residents of nature.

Materials: magnifying hand lenses, rotten logs

Procedure:

There is quite a lot to discover about rotten logs in a forest. Examine possible rotten logs ahead of time to determine one that is best suited for a group investigation. You might consider several in the same location and split the group. Provide each child with a magnifying lens or insect boxes and head out on the trail to explore the world of decomposers. As organisms are found (don't forget fungi!) encourage the children to examine them closely. Ask questions such as how many legs does it have? Where do you think it lives? Where does it get its water? What does it eat? What might eat it?

After the discovery walk, provide children an opportunity to draw or write about the rotten log. If time permits, allow them to share their work with the rest of the group.

Extension: This activity can also be completed by looking in the grass, under rocks, and so on—placing an emphasis on the small creatures that inhabit our world.

Bird Feeders

Explore the different kinds of birds and what they like to eat. Create a simple bird feeder.

Materials: birdseed, pinecones, peanut butter, string, shallow aluminum pans

Procedure:

Birds can be found everywhere. Large birds, such as ducks, geese and herons are easy to watch because of their size and slower movements. Smaller birds, such as robins, cardinals, and warblers are easier to observe at a bird feeder located near a window. Such feeders can be an important food source for wintering birds as well, thus making this activity a good one for fall or winter. Bird feeders can be made from a huge variety of materials. A simple bird feeder can be made by tying a string to an end of a pine cone, smearing it with peanut butter, and rolling it in birdseed. (It may help to provide shallow aluminum pie pans or similar containers to contain birdseed while rolling the pinecones.) Hang it in a spot visible from a window (but not too close) to avoid bird/window collisions.

Consider researching information on native plant gardening and adding appropriate plants for the area to your home landscape or schoolyard. Remember you may be feeding more than just birds - bees, butterflies, squirrels, etc.

U.S. Fish and Wildlife Service
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<http://www.fws.gov>

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