

Friends of NCTC Program Activity

A Sense of Wonder

Ages 5-105

Exploring the natural world can be done anywhere, by anyone, of any age. All you have to do is step outside your house and begin to look around!

Background

One of the extra special items in the US Fish and Wildlife Service's Archives at NCTC is Rachel Carson's magnifying glass. It is rather large—12" long and the lens is about 6" in diameter. It's a treasure!

Rachel Carson is probably best known for her 1962 book, "Silent Spring," but she was an employee of the USFWS for most of her life. She wrote other books as well and she loved the ocean. The title of one of her last books, "A Sense of Wonder," has become the motto of everyone who encourages kids to get outside in nature and explore.

These activities are designed to help kids explore the world around them, whether it is your backyard, a park, or a larger natural area. Just remind your kids that they should respect all living things they find and be careful of bees, fuzzy caterpillars, and other things that might sting or bite. Learning to identify poison ivy is a good idea too!



What You Will Need for This Project

A magnifying glass (available at any dollar store or places such as Wal-Mart for about \$1.00)

Paper and pencil

Scavenger Hunt sheets (or you can just make a list)

Any small object (stick, small toy, marble, etc.)

Cellphone camera

A sense of wonder!

What to Do

Kids love magnifying glasses (so do adults) and they definitely help with focusing in on smaller worlds. Magnifiers work best if they are held about halfway between your face and the object you are looking at. (Holding it too close to your eye or to the object doesn't magnify anything.) It's a trial and error process so just experiment until you get the hang of it. Then go find something to look at!

>Find a tree, take up the magnifying glass, and get close up to it—the bark, leaves, tree buds, or (if you are lucky) an insect. Is the bark smooth or bumpy; soft or hard; light colored or dark? Is there lichen on the bark? Can you find the veins in the leaves? Are the leaves all the same color? Are there flowers or seed pods or fruit on the branches? Can you find places where a woodpecker has made a hole or an insect has bored into the bark? Examining a tree over the course of a year will show changes over time like buds opening, flowers appearing, seeds developing and dropping, and leaves changing colors. As you notice changes on a tree, kids will start to see other changes as the temperature and amount of daylight changes.

>Dig a hole and examine what you find—rocks, dirt, worms, things that glitter, something wet, something unexpected. Use the magnifying lens if you like.

>Listen! Sit quietly with your eyes closed and just listen for at least 2-3 minutes. (This is hard for kids to do!) Tilting the head to one side can make it easier to determine the direction of the sound. Dogs will do this. Owls have asymmetrical ears (one positioned higher than the other on the skull) so that they can determine whether sounds are coming from above or below them in flight.

While listening, younger kids can point to the sounds they hear, while their eyes are closed. Older kids might make a Sound Map such as this one from Project Learning Tree: Provide a sheet of paper and a pencil or crayon. Put an X in the middle of the page to represent themselves, then with eyes open or closed listen

carefully for sounds. Use pictures or words to record the location of the sounds they hear around them. After several minutes of listening, talk about what you heard. Cupping the hands behind the ears (“Fox Ears”) can increase the sounds.

>Become a citizen scientist! Even kids can record what they find and observe in nature. Programs like Feeder Watch, The Great Backyard Bird Count, Project Bud Burst, and Celebrate Urban Birds are designed for anyone. Links are found below at Helpful Hints for Adults.

>Scavenger hunts are a great way to explore nature, but don’t make them too easy! Non-readers can use pictures, but older kids and adults should have more of a challenge. (See next page.) You can find the link for this graphic (and other great ideas) and print it full size at <https://www.sisterswhat.com/2017/07/nature-scavenger-hunt-and-summer.html>

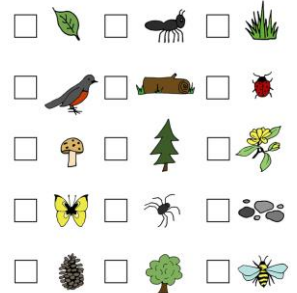
>Create a mystery hunt by taking a picture of an object—a stick, a small toy animal, a marble, etc.—and hiding it in a specific natural area (like your backyard). Establish what the boundaries are for that area and make sure that it is clear that the object will be hidden within those boundaries. The object should be hidden such that it isn’t necessary to move anything out of the way or dig into the ground for example. If more than one child is playing, emphasize that when they see the object, they are not to touch it, move it, or say anything out loud. Instead, they are to *silently walk back to where they began and wait for everyone to see it*. That will allow everyone to have a chance to find it.

It sometimes takes certain people longer than others -- try to have those who find it earlier encourage the ones who are still looking in a positive way. If the kids who are still looking want, those who have found it can give them hot/cold hints, depending on how close they are (hotter is closer, colder is farther away/ moving in the wrong direction). Start by hiding the item in a more obvious place, then for the second round make it a bit more difficult. Through each of those activities, kids will more than likely find more things (an object, animal, plant, etc.) that interests them and can be explored.

NATURE SCAVENGER HUNT FREE PRINTABLE

SISTERSWHAT.COM

NATURE SCAVENGER HUNT *discover - look - explore*









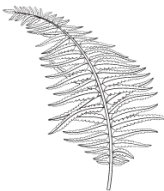



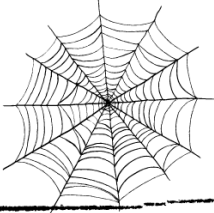


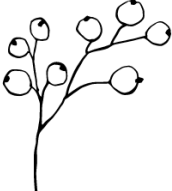

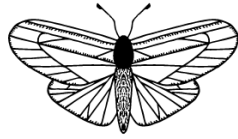


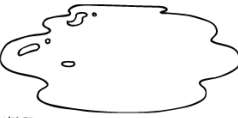





Helpful Hints for Adults

- *A Sense of Wonder* by Rachel Carson
- Free Printable Leaf Identification Cards: <http://wildflowerramblings.com/homeschooling/leaf-identification-cards-free-printable/>
- Sound Maps: <https://www.plt.org/family-activity/sounds-around/>
- Feeder Watch: <https://feederwatch.org/>
- The Great Backyard Bird Count: <https://www.birdcount.org/>
- Project Bud Burst: <https://budburst.org/>
- Celebrate Urban Birds: <https://celebrateurbanbirds.org/>



NATURE SCAVENGER HUNT

<p>EARTH WORM</p> 	<p>FLOWERS</p> 	<p>LICHEN</p> 	<p>SMOOTH STONES</p> 	<p>PINECONE</p> 
<p>REPTILE OR AMPHIBIAN</p> 	<p>ACORN</p> 	<p>TWIG SHAPED LIKE A LETTER</p> 	<p>FERN</p> 	<p>ANIMAL TRACKS</p> 
<p>TREE STUMP</p> 	<p>MUSHROOM</p> 	<p>SPIDER WEB</p> 	<p>ROUNDED LEAF</p> 	<p>BEEBLE</p> 
<p>BERRIES</p> 	<p>CHIPMUNK</p> 	<p>FLYING INSECT</p> 	<p>SUNRISE OR SUNSET</p> 	<p>BIRD SONG</p> 
<p>BODY OF WATER</p> 	<p>FEATHER</p> 	<p>CLOUD SHAPED LIKE AN ANIMAL</p> 	<p>BIRD'S NEST</p> 	<p>RABBIT</p> 