

FAMILIES DISCOVERING NATURE

Whether you are a gardener or have had no experience growing plants, or whether you are a pet lover or feel uncomfortable around bugs or other animals, you can become a naturalist with your child. What's most important is to try to maintain a positive attitude and resist any temptation to squash a bug or show your fear, as your child will certainly follow your lead. Your child will be delighted if, instead, you encourage her explorations. And by exploring plants and animals together, you and your child will learn more about each other and the natural world around you.

Tips for Outdoor Explorations

Take a naturalist walk with your child in a park, your neighborhood, or backyard. Bring along clipboards, paper, and pencils so that as you and your child observe, both of you can sketch the plants and animals you see, trying to capture the details. Bring a field guide of your local area and a hand lens if you have them.

During your naturalist walk, you and your child can note the following:

- Plants and animals you see
- Characteristics of each plant or animal (such as its shape, color, size, and texture)
- Different parts of each plant or animal (such as leaves, branches, stems, and trunk, or eyes, legs, and antennae)
- Movements made by animals (such as squirming, flying, crawling, or creeping)
- Place where you found the plants and animals (such as on the ground, on a wall, under a log or rock, or in the air)
- Ways the different plants are alike and different
- Ways the different animals are alike and different

In addition to exploring the plants and animals in your neighborhood, you might also plan trips to greenhouses, plant nurseries, woods, pond areas, and so on. By exploring different areas, you and your child can compare and contrast the kinds of plants animals found in new environments to those living in and around your neighborhood.

Tips for Indoor Explorations

You might also want to grow different types of houseplants, so your child can see how different types of plants grow and change over time. At the same time, you can notice together how different plants are alike and different. Or, if you're feeling adventurous, you and your child can build a terrarium for some short-term animal visitors. You will need the following:

- Large, clear container with fine-mesh (small holes) cover
- Large rubber bands or tape (to secure the cover)
- Gravel, pebbles, or sand (for drainage)
- A hand trowel or small shovel
- A water bottle for keeping the soil moist

With your child, put about one inch of the pebbles or sand at the bottom of the container. Put several inches of dirt on

top of the pebbles or sand. Also put in a few small plants, such as grass, moss, tree seedlings, and weeds. Moisten the soil by adding water; mist the leaves of plants. Cover the container, then place it inside out of direct sunlight. Then with your child, collect small animals such as worms, pillbugs, grubs, and snails; put them in the terrarium. Spend a week observing, drawing, and talking about the plants and animals you see. Then return the animals to the environment where you found them.

Tips for Naturalist Talks

As your child explores different plants and animals, use these tips to spark some conversations:

- Invite your child to tell you about the plant or animal she saw and where she found it. ("Tell me about the plant you found.")
- Help your child think about the characteristics of the plant or animal. ("What does the plant or animal look like? What color is it? How big is it? What shape is it? How does it feel when you touch it?")
- Help your child think about an animal's behavior and needs. ("How does the worm move? How do you think it can get underground? What do you think it needs to live? Why?")
- Wonder out loud with your child. ("I wonder what would happen if we put the worm on the table. Would it crawl off? . . . I wonder what will happen to the plant when it gets really, really cold outside.")

Provide your child with the support he needs to share his thinking:

- Give your child time to think before he responds to your questions and comments. Silent time is okay.
- Find ways for your child to show you what he knows (for example, using his hands to show you how an animal moves).

Avoid comments that could limit your child's thinking. Avoid the following:

- Explaining the science
- Correcting ideas (rather, ask more questions)
- Moving on too quickly (allow the child to decide when to move on)