

WEEKDAY WONDERS



Content developed by the
Tennessee Aquarium
Education Department



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Nature Detectives: Day 3

This week your young scientist will use his or her amazing observations skills to examine and investigate on a smaller scale. Sharp sleuthing skills will find signs of living things in your backyard. As s/he explores, your young scientist will put together clues to know, while you may not always see a living thing, signs are all around to know it is there.

These curated activities are listed in a suggested sequence but may be done in the order that works best for you and your young scientists. Learn more about this series in the [Introduction to Weekday Wonders](#).



Question of the Day Who left that trail?



Daily Nature Journal

Ask your young scientist to spend some time outside today completing a daily nature journal entry. Use the [Guide to Nature Journaling](#) to support them in nature journaling each day.



On the Move

Share with your young scientist that animals are often nearby, coming and going, even if we do not notice it. Sometimes, a few sleuthing skills can decode who may be visiting your outdoor space.

In this activity, your young scientist will collect evidence of animals that may be unseen. Have your young scientist find a way to mark a circle with a 3-4 foot diameter. A hula hoop, a string or rope, or chalk drawing can all work well. In the middle, have your scientist place a plate with small portions of several types of food, such as bird seed, peanut butter, tiny pieces of hot dog or chicken, and dry cat or dog food. Let your young scientist spread a thin layer of flour in the space between the outer boundary and about six inches to the plate. A sifter or mesh colander can work well for this step.

Have your scientist move away from the area for a while. Several times throughout the day, s/he should check for tracks in the flour to see if any visitors have stopped by. Each time your young scientist checks the area, s/he should write observations in his or her nature journal. These should include the time of

day, if tracks are noticeable, and a description of the tracks with words, measurements, drawings, and labels. It is not important to name the animal that left the track at this point, simply see if animals are coming and how many different types of tracks are found. Also note what kind(s) of food the animal ate, if any. For older scientists, have them consider if the type of animal seems to match any missing food. For example, does it seem like the tracks are bird tracks and some bird seed is missing?

Lightly dust the tracks to clear them and replace the eaten food. Keep watching, checking, and resetting your experiment throughout the day. Then, just before bedtime, have your scientist check the circle and reset it one more time. He or she should check it the next morning and see if different animals came to visit and eat.

Extension:

If your young scientist wants to identify the tracks found, have him/her compare tracks to drawings/pictures found in books (your public library could be a good source) or check out [these descriptions and images](#) of common tracks.



Nature Journal

Once your young scientist has set his or her track-collecting circle, have your scientist go on a walkabout to find some evidence of animals outside your house. Remind your young scientist to take his or her time and to look carefully. Animal tracks and signs may be hard to spot at first. Suggest looking in mud or soft dirt. Don't forget the more atypical tracks or signs that animals have moved through an area such as slime trails from slugs and snails on windows, rocks or leaves, lone silk threads stretched between two objects from a spider, scat (poop) left behind such as bird poop on the car window or porch, or small round dirt balls in the ground.



Sleuths on the Move

Hopefully, your young scientist has seen some tracks first hand in the previous activity. Discuss the following questions with your scientist.

- What kind of clues does an animal's tracks give us about its life?
- Can you tell how the animal moves?

Remind your scientist that this week's theme is nature detectives. Have him or her list as many different ways s/he or animals can move that will leave a track (walk, run, skip, jump, and walk on all fours).

Ask your scientist to find a towel, a bucket or bowl of water, and his or her nature journal. Have your scientist find a hard, flat surface, such as a sidewalk or driveway, on which they can walk, run, jump, and other activities.

Have your scientist soak the towel in water, wring out the excess, and lay it flat at the end of the area. If possible, he or she should do this activity barefoot. Have your scientist stand on the wet towel. Then, your scientist should try one of the movements that s/he listed as a way that an animal makes a track. He or she should then examine the tracks and make notes and sketches in the nature journal.

Ask your scientist to repeat this process for each of the other movements listed. If the towel starts to dry out, your scientist can wet it and lay it out again. Remind him or her that if there is a movement such as walking on all fours, s/he will need to start with hands and feet on the towel.

Once your scientist has done all the movements he or she listed, discuss the following questions. Have your scientist use evidence from his or her observations in the discussion.

- Does the type of movement affect the pattern of the tracks? Compare different activities, such as walking, running, skipping, jumping, and bear walking.
- Are the tracks the same size, regardless of how the animal (your scientist) moves?
- Is the space between the tracks the same regardless of how the animal moves?
- Do the front feet (hands) and back feet (feet) look the same size?

Have your scientist use this information to look back at the tracks left in the flour during the “On the Move” activity. What can s/he tell about what the animal was doing as it came to the plate and as it left? How many feet does the animal have? Do the front and back feet match? Were any scared away from the plate by a predator?

For added fun, go online to look up animal track patterns and see if your scientist can recreate the different patterns.