

WEEKDAY WONDERS



Content developed by the
Tennessee Aquarium
Education Department



TENNESSEE
AQUARIUM



Nature Detectives: Day 2

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

Can you find evidence of residence? Or, how can you tell where do animals live?



Daily Nature Journal

Have your young scientist go outside to complete a daily nature journal entry. Use the [Guide to Nature Journaling](#) to learn more about what should be included in these entries.



Start Your Investigation...

Have your young scientist make a list of animals. Next to each one, ask him or her to draw or write to describe what s/he thinks each animal's home looks like. It is okay to not know where all animals live, but if your scientist is having trouble, suggest some easier animals, such as birds that live in nests or bats that live in caves. Have your scientist list as many animals and homes as possible. Once your scientist has had a chance to brainstorm many different types of animal homes, have him or her write a claim to answer to the question, "Are there animal homes close to where I live?" as a nature journal entry. Tell your scientist to not just write "yes" or "no" but to include why s/he chose that answer.



Finding the Evidence

Now that your young scientist has started thinking on a smaller scale and has created his/her claim (refer to [Monday's activities](#) and today's journal entry), it is time to open our investigation by searching for physical evidence of animal homes.

Have your young scientist wander about your outside space, could be your neighborhood park, your backyard, or your front yard. S/he should use sleuthing skills to find signs of all possible animal homes. A few to keep in mind are webs, bird or squirrel nests, mud dauber nests, wasp nests, holes in the ground or trees, ant hills, and *galls*. Galls are swellings found on the soft tissue of plants—leaves or stems—often caused by an insect laying an egg in the tissue as it is growing. For more information about galls, along with some wonderful pictures visit <https://kids.kiddle.co/Gall> or <https://agriflifeextension.tamu.edu/faqs/what-causes-galls-on-trees/>.

If you see something your young scientist does not, play a game of “I spy” and then ask “Do you think that may be a residence?” or “What do you think could live there?” As each home is found, carefully watch to see if the animal comes or goes. Is there activity around the residence that may keep the animal from coming or going? Remind your young scientist that it is important to be respectful of the home for your safety and the animal's.

Once you have gathered some evidence, have your scientist look back at the claim s/he wrote. If any of the ideas they wrote do not seem to support the claim, have him or her draw a line through them. Then, ask your scientist to add as many pieces of evidence as s/he can to support the claim, or answer, to the question.

Extension:

Use the list or pictures from the journal activity to create a bingo card or scavenger hunt list—be sure to add a free space. Change the word BINGO to HOMES. Your scientist can make multiple cards by mixing up the order in which the types of homes are placed on the card and the entire family can join the fun. As your scientist looks for homes, s/he can cover the spot. The “free space” could be used for any home they find that is not on their list or instead of “free space,” make it a “new discovery” space.



Caught in the Web

Collect the materials for this activity: a piece of cardboard, such as a panel from a cereal box; a bottle of glue; and a pencil. If you don't have glue, let your young scientist make their own by mixing flour and water to create a paste: combine 1 part water ($\frac{1}{2}$ cup) with 1 part flour ($\frac{1}{2}$ cup) and mix well. Add additional water or flour to get a glue-like consistency good for painting.

Tell your scientist that spiders are very common but they are also unique, beautiful, and beneficial predators, eating up to 800 million tons insects in a year. Many spiders use their web to catch their prey; however, not all webs look the same.

Have your young scientist take a few minutes early in the morning to discover the dew drops glistening on the webs. How many spider webs can s/he see in your yard or from the window? Next, have your

scientist use his/her investigating skills to see how many different web designs or shapes s/he can find. Now, your scientist is ready to create a web of his/her own.

Have your young scientist draw a web on the cardboard. Then, use the glue to trace over the designed web. If you have a bottle of glue, he or she may be able to trace the pattern. If you made glue, ask your scientist to use a stick or paintbrush to paint glue onto the pattern.

Share with your scientist that spiders spin webs containing both dry and sticky silk. The dry silk allows the spider to move about the web and the sticky silk catches the prey! Once the glue has dried completely, add “sticky silk” by attaching small loops of tape to spots around the web. The tape loops do not need to cover the entire web.

Once your young scientist has a few sticky strands of web, try to catch insects (pieces torn off of cotton balls or very small balls of tissue or bathroom paper). Have your young scientist throw the pretend insects at the web to show the insects “flying” and see how many stick to the tape.

To add to the fun, have your young scientist imagine if your home were made of sticky and dry silk and you caught food the way a spider does. Your scientist’s creativity with this question should lead to a few laughs.