

Changing Ecosystems: Day 1

Weekday Wonders helps young scientists explore changes in ecosystems this week. They begin by thinking about what changes in their neighborhood. The scientists will dig deeper into how the places that animals live change, focusing on both land and water. Then they will consider how often ecosystems change, finishing the week learning about why diverse ecosystems are healthier ecosystems.

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 <u>Introduction to Weekday Wonders</u>.



Question of the Day What things change in your neighborhood?



Daily Nature Journal

Ask your young scientist to take his or her nature journal outside and complete an entry. If your scientist needs additional help, you can find more information in the <u>Guide to Nature</u>

<u>Journaling</u>.



All in a Day

If your scientist has been completing a nature journal every day, they may have been going outside at around the same time each day. Today they will have a change to see what happens a place across the course of a day.

in the same place across the course of a day.

Ask your scientist to find a spot where he or she will sit three times during the day. Choose the times to go outside, such as 8:00 AM, 12:00 PM, and 3:00 PM. Each time your scientist goes outside, set a timer for five minutes and ask him or her to record the following while quietly sitting, looking, and listening.

- Time
- Weather, including temperature
- Notes about what he or she can see and hear. Do the sounds remind your scientist of something else? What colors does your scientist see each time? Are there human sounds or behaviors?

After his or her last journal entry late in the afternoon, ask your scientist to compare the three entries. Discuss the following questions.

- What was different about each quiet time? Was anything the same?
- What may have influenced the animals you saw or the sounds you heard? What were insects doing?
- What do you predict would happen if it were cooler or warmer outside?



Week-Long Drawing

Ask your young scientist to begin a week-long drawing. This is a way to get a more detailed and complete picture of the area where you live. A large piece of butcher paper works well,

but this can be done on any kind of paper.

Tell your scientist that each time s/he hears or sees an item that is listed below, draw the associated item on the week-long drawing. Ask them to note the time and weather next to each picture. Many of the items you may draw more than once. Your scientist should look and listen for the items in the first column then draw the item in the second column on the week-long drawing.

I saw/ heard:	Draw:
a squirrel	an oak tree
a skink	a rock pile
an ant	grass
a bird	some flowers
a worm	a leaf pile
rain	some clouds
the Sun rise	the Sun
fireflies (lightning bugs)	the Moon
a rabbit	a patch of clover
a chipmunk	a mushroom
a bee	a fruit tree
lightning/thunder	a puddle
a frog	a grasshopper
a rainbow	a bluebird

At the end of the week, ask your young scientist to reflect on your picture and have a discussion about the following questions:

- Why do you think you saw or heard the item when you did?
- Where do you think it was when you were not seeing it?
- Do you think it stays nearby all year? If so, how do you think it survives in hot or cold weather?
- If it moves away part of the year, where does it go? Why?
- Why were the associated items the ones that you drew on the picture? How do the things you drew work together to support life? *For older scientists, consider having them do some research to find out about the relationship between each item in the first column and its associated item.*

• How might the items change in fall, winter, and summer? As an extension, have your older scientists draw another picture to show how the scene may be different in fall or winter. Then discuss what changed and why your scientist changed them. What did he or she keep the same?



Songbird Says

Songbird Says is a version of Simon Says. Begin by designating a place for "North" and "South" within the playing area. When Songbird says a command, all birds must do that command. You can act as Songbird or if you have multiple young scientists, they can take turns acting as Songbird. Birds who do not follow Songbird's directions or who act without the words "songbird says" have to nest for the rest of that round. Examples of prompts could be

- Songbird says flap your wings
- Songbird says fly North for the summer
- Songbird says to preen your feathers
- Songbird says to "eat" a worm
- Songbird says to build a nest
- Songbird says to fly South for the winter

Make the connection that birds do some different behaviors at different times of year while others, such as flapping wings or preening feathers, happen year round.