

WEEKDAY WONDERS



Content developed by the
Tennessee Aquarium
Education Department



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Growth and Development: Day 4

This week through Weekday Wonders, young scientists will learn about life cycles. The week starts with your scientist exploring how animals grow and develop. Then scientists will take a closer look at specific animal and plant life cycles. The week will finish by looking at how the environment might impact these life cycles.

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 Do plants have life cycles?



Daily Nature Journal

Ask your young scientist to spend some time outside completing a daily nature journal entry. Use the [Guide to Nature Journaling](#) to support them in nature journaling each day. Ask them to find a new spot or perspective. This can help them observe new things they have not noticed previously.



Nature Journal

Have your young scientist go outside to sketch at least 5 different plants that are nearby. Then have him or her write or draw what s/he thinks the plants might have looked a year ago and how it might look a year from now. See if your scientist can also include how the plant started and how long it might live.



Make a Wish

Show your young scientist the picture below. Ask him or her to imagine blowing on the tallest flower. Then have him or her create a cartoon to show what happens, starting with the seeds blowing off and ending with a yellow flower.



Dandelion. Christian/Public Domain.
https://commons.wikimedia.org/wiki/File:Dandelion,_Steyr.jpg

Once your scientist has finished the cartoon—or if s/he seems to have trouble starting it—share the descriptions of the different stages in a dandelion’s life. Ask your scientist to label the different parts of the cartoon with the descriptions. If your scientist has left out any parts, have him or her add them to the cartoon.

First, puffy seeds blow off a dandelion head.

Next, a seed lands a moist, sunny spot. It begins to grow there.

A cluster of dandelion leaves then begins to grow close to the ground.

Roots now grow several inches down in the ground.

A hollow stem with a bud on top then begins to grow.

As a result, a yellow flower opens at the top of the stem.

Finally, the flower grows seeds and turns into a puff at the top of the stem.

The process begins again.

Tell your young scientist that he or she has shown the life cycle of a dandelion using a cartoon.



Plant Life Cycle Experiment

In this activity, your young scientist will have a chance to observe the life cycle of a plant. To start, collect the following materials.

- Seeds. If you have gardening seeds, your scientist can choose one or more. You can also use seeds inside of your produce, including apples, strawberries, cucumbers, squash, or beans. You could collect seeds from a dandelion if they are at the proper stage of the life cycle.
- A clear container such as a jar, glass, plastic cup, or plastic baggie
- Paper towels
- Water

Have your young scientist fill the jar with crumpled paper towels. He or she should pack the paper towel fairly tightly to give the seeds support. Next, your scientist should add enough water to make the paper towels damp but not soaking wet.

Your scientist should add the seeds in between the paper towels and the side of the container. This will allow him or her to see the seeds as they sprout and grow. Make sure s/he spaces the seeds out around the sides and places them about halfway down in the container.

Have your scientist find a sunny spot to put the container. This could be inside or outside, but the area should get 6 to 8 hours of sunlight a day. Even though the seed is not yet sprouted, the sun will keep it warm so that it will begin growing.

Your scientist should check the seed every day to make sure that the paper towels stay moist at all times. Each day, your scientist should write or draw observations in his or her nature journal to describe what is happening.

Once the seed has started growing, your scientist may want to transfer it to a pot with soil or to the ground. Challenge him or her to describe the life cycle of the plant as there are more observations.



Plant Life Cycle Scavenger Safari

Provide your scientist with the following list of things to find on the Scavenger Safari. Have him or her go outside or on a walk to try to find all of the items on the list.

- A seed
- An adult plant
- A sprout (new growth on a plant)
- A seedling (young plant that has grown from a seed)
- A flowering plant
- A plant with a fruit or nut
- A pollinator (insect on a flower)
- Pollen

The youngest scientists may need help finding some of the items. To make it a challenge for older scientists, either give them an amount of time to finish or challenge them to find two or three of each item.