

## Outside Still Open - What is Phenology?

Age Range	Location	Length of Time	Adult Involvement	Benefits
5th grade +	Backyard, urban, park or nature area	10 - 15 minutes, weekly	Low	Learning local organisms, fun nature engagement

### Objective

Students will explore their own backyard or nearby natural areas to observe and document natural phenomena such as buds opening, leaves opening, birds returning, bird songs, etc. and notice how these natural phenomena change over time.

### Materials & Preparation

Journal/paper and a writing utensil

### Procedure

#### Part 1

Kids should think about what the weather is like on their birthday every year. What animals do they usually see or hear? Is it typically sunny? Is there snow on the ground? Are there leaves on the tree?

What are some events that happen throughout the year that you get excited for? What month do you typically notice it happening?

This cycle of nature is phenology. Phenology is the study of the natural world and how it changes throughout the year. The observations looked for when studying phenology are the 'firsts' and 'lasts' of the year. These can include but are not limited to:

- First snowfall
- First flowers
- Buds breaking
- Reptiles laying eggs
- Water temperature about freezing
- Bird songs starting
- First thunderstorm
- Last snow pile
- First bear sighting
- Mushroom sightings

#### Part 2

Students should make their own calendar for the month. Leaving enough room in each day's space to write a few observations in.

#### Part 3

Students should spend at least 10 minutes outside noticing what is happening in nature. The first phenology walk won't show many changes but as students continue to walk around they will begin to see changes as the temperature and amount of daylight changes. Document anything that you notice in your calendar. This calendar can be used from year-to-year to notice how the natural phenomena are shifting.



### Larger Implications

Plants and animals have two ways of knowing when to do something (migrate, hibernate, leaf out, drop leaves, etc.) either by the amount of sunlight in a day or by temperature.

Climate change affects how plants and animals interact with each other and the rest of the natural world.

### Further learning

Think about noting the sunrise/set times, high/low temperature and weather of the day to see if you can make any connections to what you are noticing happening outside.

### Resources & Links

Helpful websites to learn more about phenology:

<https://www.usanpn.org/home>

<https://www.usanpn.org/files/education/d2d-classroom-phenology.pdf>

You can also link this activity with [Nature Journaling](#), [Observing Our World](#), and [iNaturalist: What Lives in Our Neighborhood?](#) activities to practice observations or journaling skills, or to apply observations to an online resource.