

# Birthday Phenology Game



Photo Credit: Eyesplash

## Grade Levels

3-5

## Overview

Students will gain awareness of local phenology and each other by playing a game connecting their birthdays with local phenology and seasonal phenomenon.

## Background

Phenology is the study of the timing of life cycle events, done mostly through personal observations.

## Real-world Connection

Local phenologies differ! The new student from another county or state may hold a different set of phenology facts in mind! This need not be a problem; it can spark a good discussion about why phenologies will vary from place to place. For example, latitude, altitude, and/or nearness to large temperature-moderating bodies of water can all affect local phenology.

## Citizen Science Connection

This activity can be completed without a *Nature's Notebook* account. However, the visualization tool can be used to examine phenology data, and exemplify the value of citizen science.

## Learning Objectives

Participants will be able to:

- Be aware of local phenology and seasonal phenomena
- Understand the importance of phenology to our understanding of our place
- Learn something about each other
- Be curious about local phenology
- Be inspired to become observant when outdoors

## Next Generation Science Standards

LS: Life Sciences			
	Grade 3		Grade 5
3-LS1-1	Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death	5-LS2-1	Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

## Conducting the Activity

### Materials

#### Resources needed

- 11" individual phenology wheel templates or one 32" classroom template
- Writing Materials
- Colored adhesive notepads (optional)
- Magazines, scissors, and glue sticks for a collage (optional)

## Engage

### Connect to prior knowledge

- Ask students about ways they have noticed that plants and animals change from season to season.
- What are some things that they have noticed about the plants and animals in every season? Spring, summer, autumn, and winter.
- What are ways that we change our behaviors as the seasons change?

## Estimated Time

20-30 minutes

## RESOURCES

Adapted from:

### Birthday Phenology Game: A Getting-to-Know-You Game

By: Georgia Gómez-Ibáñez,  
Cambridge Elementary  
School, WI

## NOTES ON ACTIVITY

## Conducting the Activity

### Explore

#### Hands-on learning

1. Depending on what works best for your classroom, either give each student a personal phenology wheel, or post a large one in front of the class for everyone to see. An example wheel is attached to this lesson plan.
2. The teacher should be the first player, so that the students understand how to play this game. For example the teacher says: "My birthday happens when the white flowers are blooming on the wild black raspberries; in what month is my birthday?" And the guessing begins, with each student in turn.
3. You may want to divide students into groups according to season and let them brainstorm together. This often sparks conversations about the natural world that involve students who may not normally interact and takes the pressure off those who are having difficulty coming up with something.
4. Put the birthdays (and phenology facts) on the phenology wheel inside their corresponding month. Post-it notes that are color-coded can be used as a temporary way to put information up on the wheel, to be written in and embellished later.
5. In the middle of the wheel, draw a picture or make a collage representing either a unifying theme of what everyone contributed to the wheel.

### Explain

#### Listening and communicating understanding

- Do some of the phenology facts intersect in interesting ways?
- Do some phenology facts depend on each other?
- What other phenology facts might the class want to learn, inspired by the birthday phenology facts?

### Extend

#### Group projects, real world connections

1. For older students, access Web sites to do research, such as USA-National Phenology Network (<http://www.usanpn.org>) Project Budburst (<http://www.budburst.org>), Journey North (<http://www.jour-naynorth.org>), and Earth Alive! (<http://www.naturenet.com/EarthAlive>). A team building activity could include asking each student to find a phenology fact for a classmate's birthday.
2. The USA-NPN visualization tool can be used to show students how long certain phenological events occur throughout the year.

### Evaluate

#### Summarize, check for understanding, assess

- Demonstrate an understanding of phenology as a study of natural events and cycles in a place that relate to seasonal and climate changes.
- Demonstrate an understanding of phenology in place by drawing a four-panel colored picture of a place in each season.
- Show an understanding of local phenology using your birthday month observations.



An example of a birthday phenology classroom wheel