

# HIGH DESERT MUSEUM

*from home*



## Buzzing and Blossoming: Observing and Recording Spring Changes

### AUDIENCE

Pre-Kindergarten—12th grades.

### MATERIALS

Piece of thread or string, paper, pencil; optional materials – art supplies of your choosing (colored pencils, watercolors, pens, etc.), magnifying glass or hand lens.

### DESCRIPTION

Spring is here! Are you noticing more bird songs in the morning? Blooming flowers and tree buds in your neighborhood? Pollen in the air? In this activity, make observations of seasonal changes and record what you notice through art and writing. Spend time noticing how plants change through their life cycles and with the seasons. Develop your observational skills by studying the same individual plant as it grows and changes.

### FOR EDUCATORS

Activity is aligned with these Next Generation Science Standards:

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.

MS-ESS3-5. What can seasonal data and evidence tell us about how climate change is happening?

MS-LS2-4. How are organisms in different regions responding to climate-driven change in seasons?

### BACKGROUND INFORMATION

Think about the changes where you live that tell you that spring is almost here. It's likely that many of these changes have to do with the life cycle of a plant or animal and how it's connected to air temperature or the length of daylight. Phenology is the study of seasonal life cycle changes in plants and animals. Scientists, like you, are interested in springtime phenological events like flowering, leaf unfolding, insect emergence, and bird, fish and mammal migration.

Plants need specific environmental conditions (sun, water, space) in order to progress in their life cycle. The timing of when a place warms up in the spring and when it cools down in the fall depends on Earth's climate.

Extension for older students: Interested in how climate change is affecting phenology? Visit the [National Phenological Network](http://www.usanpn.org) ([www.usanpn.org](http://www.usanpn.org)) to learn more.

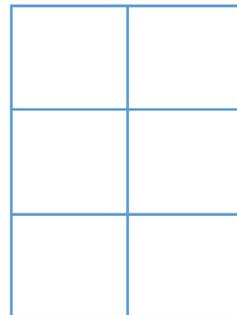
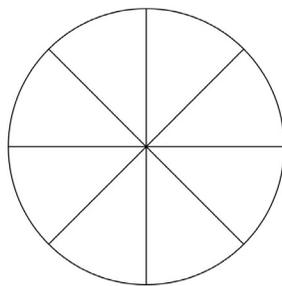
## ACTIVITY

1. You will be observing the same plant for five to 14 consecutive days. Pick a specific branch or shoot on a plant and tie a piece of thread around it so you can easily locate it over several days. Consider choosing a plant that you've already noticed changes in. For example, have you noticed green leaves emerging? Buds? New shoots coming out of the soil?

Perhaps you have recently planted some seeds to start a garden. These young vegetable shoots also work well for observing changes over time!

A twist-tie works well for marking your selected twig.

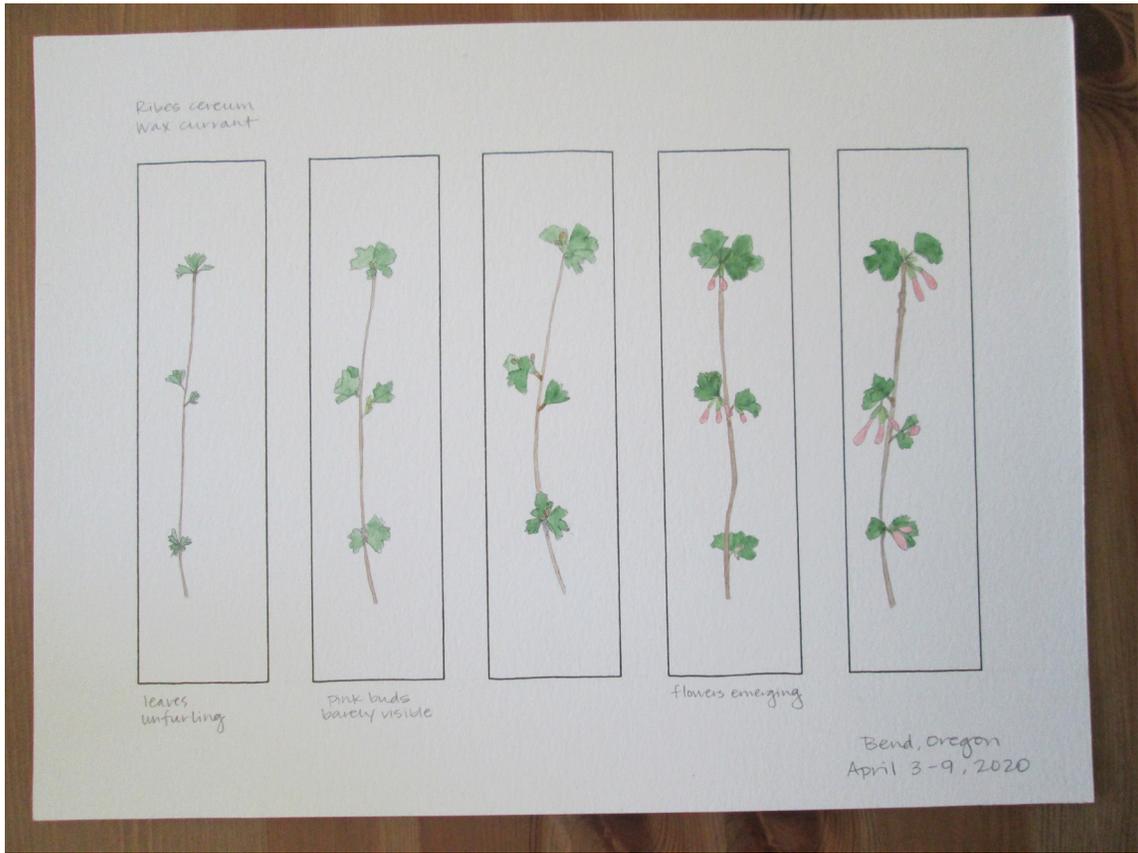
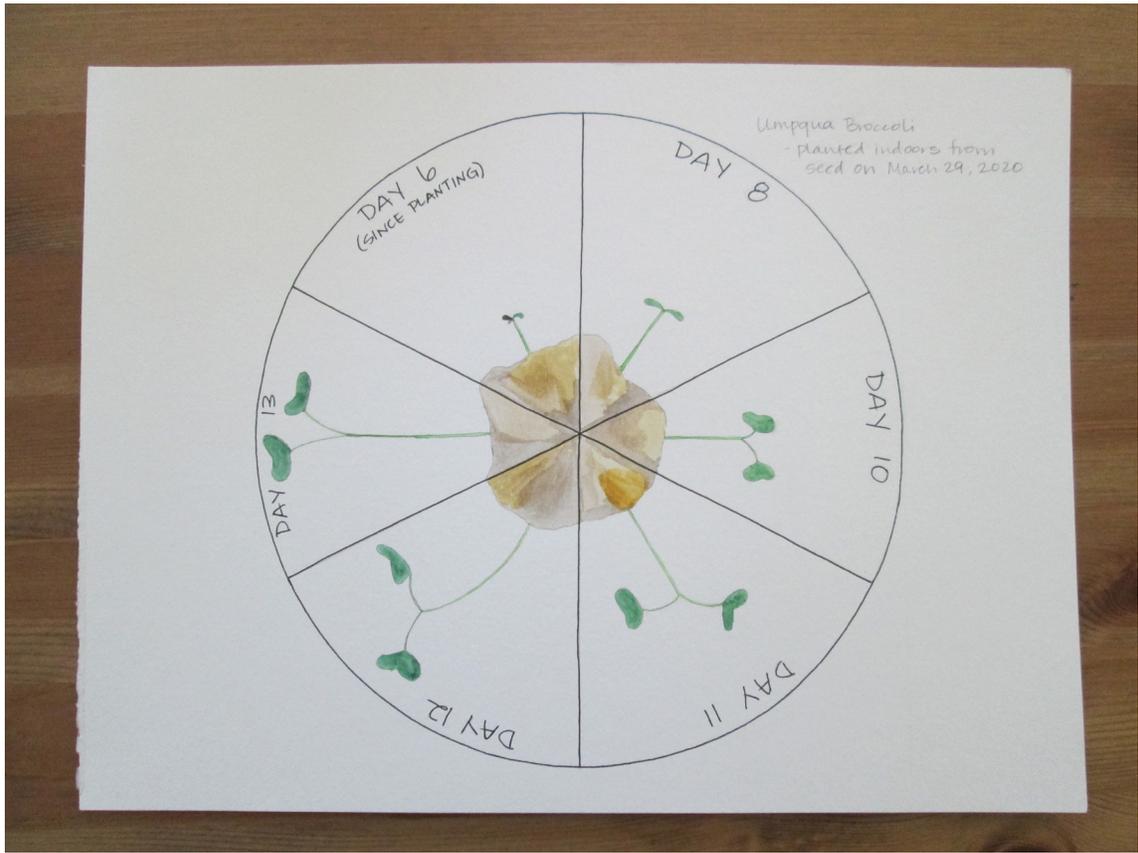
2. Prepare a piece of paper (or page in a notebook) to record your observations. Here are some examples of page layout. Feel free to come up with one of your own!



3. Every day (or every other day), visit your plant. Make a sketch of part of the plant and write down any observations. You may also choose to record the weather and/or temperature.

*Younger students may choose to just sketch their plant. Or, visit with an adult and the student can describe what they notice.*

4. What kinds of changes do you notice? Did the plant ever look the same for two days in a row? What do you predict will happen next in the life cycle? Did weather affect any changes you observed?



## ADDITIONAL ONLINE RESOURCES

[National Phenological Network](http://www.usanpn.org) (www.usanpn.org)

[Project BudBurst](http://Budburst.org) (Budburst.org)

### Literacy Connections

Books may be available on [Hoopla](http://hoopladigital.com) (hoopladigital.com) through your local library.

*Spring* by Julie Murray

*Spring* by Stephanie Hedlund

*What Can I See in the Spring?* By Cecilia Minden

*The Laws Guide to Nature Drawing and Journaling* by John Muir Laws

*20 Ways to Draw a Tree and 44 Other Nifty Things from Nature* by Eloise Renouf

### Listen

Music & audiobooks may be available on [Hoopla](http://hoopladigital.com) (hoopladigital.com) through your local library.

*Flowers Bloom (Tell Me Why)* by Nancy Robinson Masters

*“Four Seasons”* by Vivaldi