

Blooming Thermometers

Title: Blooming Thermometers

Grade Level: Middle School

Source: National Center for Atmospheric Research

[Curriculum Materials](#)

Objectives:

Understand that many natural phenomena respond to seasonal weather changes.

Understand that the timing of seasonal changes and reactions of these natural phenomena will change as climate changes over long periods of time.

Natural and human records help us to recreate the history of climate based on records of seasonal change.

Cool spring temperatures occurred in the 11th-14th and 16th centuries according to records of when plants bloomed each spring.

Materials:

- for the Teacher:
- Overhead projector
- Overhead of images of cherry blossoms (p.4)

for Students:

- Student Page
- Pencil
- Ruler
- Eraser
- Paper

Description:

This activity is part of an NCAR series on climate change over time, and the Little Ice Age. It serves as an introduction to phenology, and an understanding of how cultural events are tied to seasonal changes. After creating a list of seasonal natural phenomena, students will examine historical data of the blooming of cherry trees in Japan over one thousand years, recorded because of the annual Hanami celebration.

Student will consider the data, and answer questions about what happened over that time period, and what the known occurrences (blooming time) indicate about climate factors.

For extension, students can identify a local event that occurs regularly in response to climate change, and participate in the GLOBE program, which involves students in collection of phenology data.

State Framework relevance: