

### Nature's Time Line

 Teacher-Led Classroom Activity  
Science, Data Collection, Research Skills

*Students observe seasonal changes as they graph changing conditions.*

#### Objective:

Students track changing high and low temperatures and sunrise and sunset times over a period of weeks and correlate them with observable changes in plants and animals.

#### Students will need:

- Paper on a roll, such as butcher paper or brown craft paper
- Naturalist's Journals
- Pencils, pens markers, rulers

#### Suggested time:

2 to 3 class periods to create the graph, plus 20 minutes weekly on an ongoing basis (a minimum of 16 weeks) to add data

#### What to do:

1. Have a class discussion about how the temperature and hours of daylight and darkness vary as the seasons change. What effects do these changes have on plants and animals in your area? Explain to students that they will be creating a wall chart to graph high and low temperatures and sunrise/sunset times as the seasons change.
2. Make it a class project to figure out how to create a graph grid to record this data for at least 16 weeks. All data should be recorded at the same interval (e.g., once a week) so that any correlations are clear. Make a schedule for students to be "time line managers," responsible for collecting data and adding it to the chart(s).

*Note: High and low temperature data and sunrise/sunset times can be found in local newspapers or on weather-related websites.*

3. Have students use their Naturalist's Journals to note weather events and record their own observations of birds and other wildlife, trees, and plants on an ongoing basis throughout the charting period.
4. Once a week, spend class time discussing the time line graph and share students' journal entries. Extend the discussions and classroom investigations to include the reasons for the seasonal changes of various kinds.

