

Lessons Used in Preparing for Spring Phenology Study

Tewksbury Memorial High School

Elaine Senechal

Lesson 1 : What are the Effects of Climate Change on our World?

Resources: Lesson Plan
Student Guide

Students research topics related to climate change and give presentations to class.



Lesson 2: Exploring the LTER Network

Resources: Long Term Ecological Research Teachers Manual
Tasks for students

- Students view a LTER power point and research different LTER sites on the internet, then share the information with the class.



Lesson 3: Connections to Dr. O'Keefe's Phenology Study at Harvard Forest & The Questions We Are Attempting to Answer

Resources: Harvard Forest Webpage, School Yard
Video of interview with Dr. O'Keefe
Questions for Students about Video

- Students begin to understand the importance of careful data collecting.



Lesson 4: Twigs, Buds and Labels: Identifying trees by their buds; forcing buds and observing stages of bud development, labeling practice.

Resources: Harvard Forest Webpage, School Yard
Field Guides and Keys for Twigs and Buds

Students practice labeling
before making outside
observations.



Lesson 5: Protocols: Making Observations and using the Data Form

Resources: Harvard forest Webpage, School Yard
Buds Forced in Class

Students practice in classroom with data form on twigs and forced buds before using in the field.



- Students organize and analyze their results, including comparisons to previous data collected by students.

- Students complete a final report in which they connect their study to its broader context. They also explain their results in relationship to the questions the study is attempting to answer.

Mish Michaels' Visit

Our students' work on the Buds, Leaves, and Global Warming Study has brought positive publicity to the school. This includes several newspaper articles and a visit from Mish Michaels of Channel 4



PowerPoint put together by Steve Lovejoy