**Joint Research Project “Seasons & Climate Studying”**

Purpose: to compare observations of the beginning and the end of plant growing season for species which are native both to Ukraine and other country and to exchange experiences between GLOBE students.

Objectives:

1. Choose one (or several) specie(s) which you will observe from the suggested list of species native to both countries. For example, *Robinia pseudoacacia* – black locust or false acacia; *Morus alba L.* – white mulberry.
2. Define the phenology site.
3. Observe the green-down of the chosen plant, record your data and submit it to the GLOBE archive.
4. Observe the green-up of the chosen plant, record your data and submit it to the GLOBE archive.
5. Keep doing the atmospheric observations measuring maximum, minimum and average temperatures and monitoring the amount of precipitation. Submit your data to the GLOBE archive.
6. Present your findings in the form of graphs and charts using GLOBE Visualization Tools or any other program (e.g. Microsoft Excel).

Duration: September, 2014 –May, 2015.

Participants:

* A group of students aged 13-18 engaged in GLOBE Program studying and their teacher from Ukraine.
* A group of students aged 13-18 engaged in GLOBE Program studying and their teacher from other country.

Summary: GLOBE Program provides a broad framework for environmental observations and inquire-based investigations all over the world. Collaboration with schools from other countries is one of the best ways to show students how various natural processes are interconnected and improve their knowledge of Earth as a system. The project “Seasons & Climate Studying” involves two groups of GLOBE students from two countries who will observe the green-up and green-down of the plants which are native to both countries. As a result, students must determine the beginning and end of the growing season for species they have studied and compare these figures as well as draw conclusions about the causes of differences / similarities in vegetation cycles. Submission of results will take place during the exchange of delegations. Thus, students will have the opportunity to learn more about each other’s observations as well as share their experience, gain new knowledge and work out plans for the future collaboration.

Features: While studying the same species students and their teachers can make conclusions about the divergences in local vegetation cycles and improve their knowledge of phenology patterns in their countries. Considering that countries are in the different climate zones, the plant growing cycle observations will be particularly interesting to scientists as well as teachers and students. Students will be able to use acquired data in their research projects. The project provides an opportunity to conduct long-term research, and study the changes in plant growing cycles in time and how they relate to climate change.