Thank you for your interest in participating in the evaluation of Project Learning Tree’s *Southeastern Forests and Climate Change* secondary module. This resource supports students’ critical and creative thinking about climate change, adaptation and mitigation, and forest management. High school educators in the Southeastern United States are invited to apply to participate in the evaluation, which will take place during the spring semester. Participants will be selected based on diversity in location, grade level, and subject areas taught.

Below please review the three evaluation options, which are designed to correlate with specific high school science courses. Each activity takes one to three 50 minute class periods to complete, so it is estimated that the total time to complete an entire package could be two weeks. Please note that this class time can be dedicated sequentially or executed across an entire semester. Selected participants should plan for whatever would best accommodate their class schedule. The 3 packages are described below.

**Package 1 - Biology (Regular and A.P.)**

- **Activity 1. Stepping through Climate Science** – Students walk along a timeline of climate science and policy initiatives and then explore connections between forests and climate.
- **Activity 3. Atlas of Change** – Students are introduced to climate modeling to understand past changes and project future possibilities, and then use Web resources to consider how forest ecosystems might change over the next 100 years.
- **Activity 7. Carbon on the Move** – Students become familiar with the carbon cycle and pathways that increase and decrease atmospheric carbon.
- **Activity 8. Counting Carbon** – Students measure trees near their schools and calculate the amount of carbon stored in individual trees. Students then compare the carbon sequestration potential for land-use types in their state, compare this to the estimated amount of carbon released by human activities, and discuss forests’ ability to sequester atmospheric carbon.
- **Activity 13. Future of Our Forests** – Student teams review information from the module and share their knowledge with an appropriate audience.

**Package 2 - Agriculture Education, Forestry, or Integrated Science**

- **Activity 1. Stepping through Climate Science** – Students walk along a timeline of climate science and policy initiatives and then explore connections between forests and climate.
- **Activity 4. The Changing Forests** – Students review how scientists are monitoring forest changes and exploring adaptive strategies to keep forests healthy.
- **Activity 5. Managing Forests for Change** – Students develop and use a systems diagram to model a forest so they can advise a forest landowner how to manage a pine plantation in light of climate projections.
Activity 6. **Mapping Seed Sources** – Across the native range of loblolly pine, variations in genotype create trees that may do better under new climatic conditions. This activity helps students analyze data from three trials to determine the origin of the seeds.

Activity 8. **Counting Carbon** – Students measure trees near their schools and calculate the amount of carbon stored in individual trees. Students then compare the carbon sequestration potential for land-use types in their state, compare this to the estimated amount of carbon released by human activities, and discuss forests’ ability to sequester atmospheric carbon.

**Package 3 - Environmental Science (Regular and A.P.)**

Activity 1. **Stepping through Climate Science** – Students walk along a timeline of climate science and policy initiatives and then explore connections between forests and climate.

Activity 2. **Clearing the Air** – After an introduction to the evidence of climate change, students explore common confusions and role-play a community discussion with the goal to reach consensus on strategies to reduce greenhouse gas emissions.

Activity 5. **Managing Forests for Change** – Students develop and use a systems diagram to model a forest so they can advise a forest landowner how to manage a pine plantation in light of climate projections.

Activity 10. **Adventures in Life Cycle Assessment** – Students investigate life cycle assessment data for three types of outdoor dining furniture to determine which type would generate the lowest amount of greenhouse gases. This detailed analysis of inputs and outputs is a tool for systems thinking.

Activity 12. **The Carbon Puzzle** – Students use a series of facts to realize how forest plantations, wood products, and wood substitution can reduce atmospheric carbon, and then interpret a graph published by the researchers who explored this concept.

**Important Preliminary Information**

1. Submission of the online application will be interpreted as a commitment to:
   a. Facilitate parental permission forms and evaluation forms for student pre and post surveys. Student pre-survey MUST be administered before starting any activities.
   b. Conduct five assigned activities from the Southeastern Forests and Climate Change module with at least one class of high school students, and
   c. Complete teacher evaluation forms and submit all student data.

2. If selected, we will ask you to submit a signed letter from your school principal/administrator indicating his or her support for your participation in this evaluation project.

3. You must be able to conduct the lessons and return the evaluation forms by June 30, 2015.

4. The application provides a section for you to indicate your interest in evaluating one of three packages. To help you choose, visit the [Southeastern Forests and Climate Change](#) website to preview the activities or watch the “Tour of the Activity” for brief introductions. You will be notified of your acceptance to participate in this evaluation by December 19, 2014.
**Evaluation Procedure**

1. The evaluation materials will be mailed to you in January. The evaluation materials will include:
   - a. Instruction sheet
   - b. Printed module (module is also available online)
   - c. Student pre and post surveys
   - d. Stipend form and W-9
   - e. Teacher evaluation form (online)

2. You will need to conduct the five activities in the spring semester.

3. Educators must return their evaluation forms by June 30, 2015.

4. Stipends will be mailed in July, assuming receipt of the evaluation forms.

**Application**

***Click here to complete the online application. Application must be received by December 15, 2014.***

Thank you for your interest in contributing to the evaluation of PLT’s newest secondary resource.

If you have additional questions, please contact Tracey Ritchie at tracey.ritchie@ufl.edu.