

## Kentucky Envirothon Forestry Study Guide

If you have additional questions, please contact:

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The forestry section of the Kentucky Envirothon will focus on forests as ecosystems in Kentucky. Students should have a basic understanding of forested ecosystems, how they function, how they change over time, how they can be managed and why they are valuable resources. The Envirothon test for the forestry section will consist of both a written section and a field component. The field component will include Tree Identification, Tree Measurement (diameter and merchantable height) and Compass and Pacing.

### Resources

1. [Forestry Overview PowerPoint 2022](#)
2. Kentucky's Forests and History of Forestry  
[Kentucky's Forests Video](#)   [History of Forestry in U.S. Video](#)
3. Trees and Tree Identification
  - a. Identify parts of a tree and their function
  - b. Identify trees by leaves, bark, flower or seed (see Envirothon List of Kentucky Trees)
  - c. How a tree grows[4-H Forestry – Trees Unit A](#)   [Introducing Yourself to Trees](#)   [Tree Tips](#)   [Common Trees Videos](#)   [Identifying Kentucky's Tree Video](#)   [Tree Cross-Section/Cookie Video](#)   [Parts of a Tree \(PLT\)](#)  
[How a Tree Grows \(VTech Dendrology\)](#)   [KY Common Tree List](#)   [KY Envirothon Tree List](#)
4. Forest Ecology, Forest Health and Ecosystem Services
  - a. Ecology terminology
  - b. The effects of climate and soil on forest growth
  - c. Forest development and forest regions
  - d. Forest Health
  - e. Identify common invasive species (insects, plants and diseases)[4-H Forestry – Forests Unit B](#)   [KY Forest Health Highlights 2019](#)   [Invasive Plant Flashcards](#)  
[Forest Health Threats](#)   [UK Urban Forest Initiative](#)   [Urban & Community Forests](#)  
[Kentucky's Forest Ecosystems](#)   [KY Forest Ecosystems ppt](#)
5. Sustainable Forest Management and Forest Products
  - a. Silvicultural techniques (Forests Unit B pg. 19 – 21)
  - b. Silvicultural Systems
  - c. Forest Products[4-H Forestry – Forests Unit B](#)   [Silvicultural Systems](#)   [Forest Products](#)   [Forest Products ppt](#)
6. Tree Measurement and Compass and Pacing  
[Tree Measurement](#)   [Measure Tree Diameter Video](#)   [Compass and Pacing](#)
7. Special Topic – Climate Change  
[Kentucky Forest Impacts Due to Climate Change](#)   [Forest Adaptation Concepts for Climate Change](#)