

## 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), Compass, and Pacing.

### Resources

1. [Forestry Overview PowerPoint 2026](#)

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 KY's Trees](#) [Tree Cross-Section/Cookie Video](#) [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](#) [Kentucky Forest Health Highlights 2022](#) [Invasive Plant Flashcards](#)  
[Forest Health Threats](#) [UK Urban Forest Initiative](#) [Kentucky Division of Forestry Educational Resources](#)  
[Kentucky Division of Forestry Urban and Community Forestry](#)

5. Sustainable Forest Management and Forest Products

- a. Silvicultural techniques (Forests Unit B pg. 19 – 21)
- b. Silvicultural Systems
- c. Wildland and Prescribed Fire
- d. Forest Products

[4-H Forestry – Forests Unit B](#) [Silvicultural Systems](#) [Kentucky Prescribed Fire Council](#)  
[Kentucky Division of Forestry Wildland Fire](#)

6. Tree Measurement and Compass and Pacing

[Tree Measurement](#) [Measure Tree Diameter Video](#) [Compass and Pacing](#)