

Kentucky Envirothon Forestry Study Guide

If you have additional questions, please contact:

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Test Format:

49% of the test will come from this study guide

51% will come from the practical portion of the test which includes:

30 points - Tree identification (including scientific names)

9 points – Tree measurement

6 points – Compass

6 points – Pacing

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 a valuable resource.

Resources:

1. Tree Identification & Physiology

- 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](#) [Physiology of Trees](#) [Tree Tips](#) [Common Trees of KY Key](#) [Scientific Classification of Trees](#)
[KY Envirothon Tree List](#)

2. Forest Ecology

- a. Ecology terminology
- b. The effects of climate and soil on forest growth
- c. Forest development and forest regions
- d. How Animals, Insects and Plant Factors Affect Forest Growth
- e. Forest Health
- f. Identify common invasive species (insects, plants and diseases)

[4-H Forestry – Forests Unit B](#) [Invasive Plants](#) [Invasive Insects](#) [Diseases](#) [KY Forest Health](#)

3. Sustainable Forest Management

- a. Silvicultural techniques (Forests Unit B pg. 19 – 21)
- b. Silvicultural Systems
- c. Tree Measurement (diameter, height and volume)
- d. Compass and Pace
- e. Best Management Practices
- f. Forest Management Practices and Wildlife

[4-H Forestry – Forests Unit B](#) [Tree Measurement](#) [Tree Volume](#) [Compass and Pacing](#)
[Silvicultural Systems](#) [Forest Practices and Water Quality](#) [Forest Management and Wildlife](#)

4. Trees and Forests – Valuable Resources

- a. Economic value of forests and products they provide
- b. Urban and Community Forests
- c. Trees and Ecosystem Services

[KY Forest and Wood Industry Economic Contribution](#) [Urban and Community Forests](#) [Trees and Ecosystem Services](#)
[Value of Trees to a Community](#) [What We Get From Trees](#) [From Tree to Product](#)