



2014 FORESTRY OBJECTIVES

2014 Regional Stewardship Challenge

Key Point 1 ***Basic Forest Management: Tools & Concepts***

- a. Know basic forest management concepts and tools such as: common measurement terms, the purpose of standard forest sampling equipment, how to measure tree height and width, selection of harvest systems and Best Management Practices (BMPs)
- b. Understand how the following issue affect forest health and management: biological diversity, invasive species, forest fragmentation, disease, fire and recreation
- c. Define and understand common silvicultural practices
- d. Define and understand how and why various silvicultural treatments are utilized
- e. Explain how forest plant communities and management relate to preferred wildlife habitat
- f. Identify common forestry equipment and its principal use in forestry
- g. Understand common forest measurement concepts and techniques
- h. Be able to define: board feet, basal area, cord and chain
- i. Be able to calculate board feet from a standing tree or log using a volume table

Key Point 2 ***Illinois Forests***

- a. Categorize Illinois forest types, factors that distinguish (glacial history, topography, soils) and the species common to each habitat type
- b. Describe change in Illinois forests including natural patterns of succession and changing trends in use of Illinois forest resources since settlement
- c. Classify at least 8 tree species native to Illinois when given one of the following: leaf, pattern of placement of leaves (alternate/opposite; compound/simple), twig, bark or fruit and understand terms used to identify these trees
- d. Provide an understanding and knowledge of past and current Illinois forest resources

Key Point 3 ***Identification and Structure***

- a. Identify parts of a tree such as crown, xylem, phloem, heartwood, growth rings, buds, vascular bundle scars, pith, roots and know the function of these parts
- b. Understand plant structure including the function of cells, role of pigments, and the process of photosynthesis
- c. Identify general forest habitat type of selected tree species
- d. Understand how to identify a tree using a dichotomous key
- e. Understand the differences between an angiosperm (hardwoods) and gymnosperm (conifers/softwoods)
- f. Determine leaf arrangement: opposite, alternate, whorled
- g. Determine whether leaf is simple, palmately compound, pinnately compound or bipinnately compound

Key Point 4 ***Forest Ecology***

- a. Comprehend forest ecology concepts and factors affecting them, including the relationship between soil and forest types, tree communities, regeneration, competition, succession, disturbance and tolerance
- b. Visually identify important tree diseases and the principal species they affect
- c. Visually identify important tree insects and the principal species they affect



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Key Point 5 *Urban and Suburban Forest Ecology*

- a. Understand urban forests
- b. Understand how urban forests affect nonpoint source pollution and urban Stormwater
- c. Be able to identify ways to protect tree from urban construction
- d. Know the benefits of urban forests