

Forestry, Wildlife and Fisheries

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Forestry

- Describe the function of different types of leaves.
- Explain the difference between genus and family.
- Identify tree species using various methods.
- Give examples of symbiotic relationships in forests.
- Define fungi, bacteria, microbes, protist.
- Define macroclimates, mesoclimates and microclimates.
- Identify root morphology and purpose: storage, anchor.
- Define forest fragmentation.
- Explain how tree form and tree morphology are related.
- Create an educational product that teaches about different careers in forestry.

Wildlife

- Describe wildlife tracking.
- Explain methods for cooking wild game.
- Demonstrate an understanding of outdoor living and survival skills.
- Evaluate the impact of habitat fragmentation and destruction, invasive species, overharvesting, pollution and climate change on biodiversity (genetic, species and ecosystem).
- Choose an example of habitat fragmentation in Tennessee and develop a plan to mitigate the damage.
- Research a current issue related to biodiversity along the rural to urban gradient and present your findings to a community group or your 4-H club.
- Design a possible solution for maintaining biodiversity of ecosystems while still providing necessary human resources without disrupting environmental equilibrium.
- Create an educational display or product for younger 4-H'ers explaining the effectiveness of public lands (state parks, national parks, wildlife refuges, wilderness areas) in sustaining biodiversity.
- Develop a sample wildlife management plan for your county.



Fisheries

- Explain the purpose of fishery assessments.
- Identify which fishery assessment would be most appropriate in a given scenario.
- Conduct a fishery assessment in a Tennessee lake, stream or river.
- Compare and contrast commercial and sport fishing regulations.
- Understand fishery management regulations including licenses, harvest and gears.
- Describe the importance of fishery stocking.
- Create an educational display of common fishery habitat management practices.
- Identify and describe common fish diseases in Tennessee.
- Communicate the impacts humans have on fisheries in Tennessee.
- Analyze fish marketing and best practices.
- Generate a fish marketing plan.

Careers in Forestry, Wildlife and Fisheries

- Research specific forestry, wildlife or fisheries positions, including specific companies, job titles, salary, roles and responsibilities and prerequisites.
- Interview a forestry, wildlife or fisheries professional or job shadow a professional in one of these fields.
- Complete an in-person tour of either a forestry, wildlife or fisheries program at a local college or university.

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