



# Forestry

## Merit Badge Requirements

- 1) Prepare a field notebook, make a collection, and identify 15 species of trees or wild shrubs in a local forested area. Include a written description of:
  - A) Identifying characteristics of leaf, twig, and fruit samples
  - B) The habitat in which these trees or shrubs are found
  - C) Chief ways each tree or shrub is used by human or wildlife
  - D) The forest's successional stage, what its history has been and what its future is
  
- 2) Do ONE of the following:
  - A) Collect and identify wood samples of 10 species of trees. List several ways each species of wood can be used.
  - B) Find and examine several stumps or logs that show variations in growth rate in their ring patterns. Prepare a field notebook describing their location and discuss possible reasons for the variations.
  
- 3) Be able to do the following:
  - A) Describe contributions forests make to:
    - \* Our economy in the form of products
    - \* Our social well-being
    - \* Soil protection and increased fertility
    - \* Clean Water
    - \* Clean Air
    - \* Wildlife
    - \* Recreation
  - B) Tell which watershed or other source your community relies on for its water supply.
  
- 4) Be able to describe what forest management means, including:
  - A) Multiple-use management
  - B) Even-aged and uneven-aged management and silvicultural systems associated with each type
  - C) Intermediate cuttings
  - D) How prescribed burning and related forest management practices are used
  
- 5) Do ONE of the following:
  - A) Visit a managed public or private forest area with its manager or someone familiar with it. Write a brief report describing:
    - \* The type of forest
    - \* The management objectives
    - \* The forestry techniques used to achieve the objectives
  - B) Take a trip to a logging operation or wood-using industrial plant and write a brief report describing:
    - \* The species and size of trees being harvested or used
    - \* Where the trees are going to or coming from
    - \* What products are made from the trees or at the plant
    - \* How the products are made
    - \* How the products are used
    - \* How waste materials from the logging operation or plant are disposed of or utilized
  
- 6) Be able to do the following:
  - A) Describe the damages to forests that result from:
    - \* Wildfire
    - \* Insects
    - \* Tree disease
    - \* Overgrazing
    - \* Improper Harvest
  - B) Tell what can be done to reduce these damages.
  - C) Tell what you should do if you discover a forest fire and how to control it.

7) Do ONE of the following:

**A)** Assist in carrying out a project that meets one or more of these objectives: timber stand improvement, watershed improvement, wildlife habitat improvement, recreation improvement, or range improvement.

**B)** Take part in a forest fire prevention campaign in cooperation with your local fire warden, forester, or counselor.

**C)** Visit with one or more local foresters and write a brief report including education, qualifications, career opportunities, and objectives relating to forestry.

# Requirement 1

In the spaces below, make a collection of trees or wild shrubs. You can use drawings, photos or even a piece of the tree as a part of your collection. Fill out the required information for each of the 15 collected pieces.

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_

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How it is used by humans or wildlife: \_\_\_\_\_

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The forests successional stage / history: \_\_\_\_\_

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Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_

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How it is used by humans or wildlife: \_\_\_\_\_

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The forests successional stage / history: \_\_\_\_\_

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Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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---

Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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---

Characteristics of twig:

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---

---

Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

Species: \_\_\_\_\_

Characteristics of leaf:

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Characteristics of twig:

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Characteristics of fruit:

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Habitat where this is found: \_\_\_\_\_  
\_\_\_\_\_

How it is used by humans or wildlife: \_\_\_\_\_  
\_\_\_\_\_

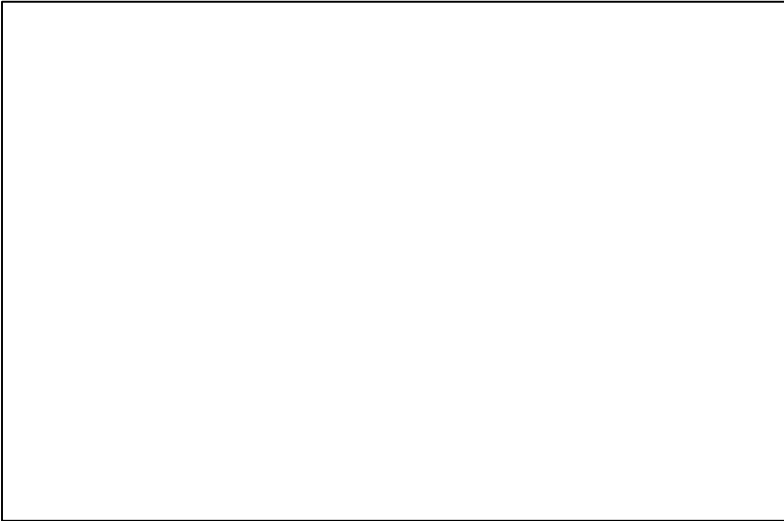
The forests successional stage / history: \_\_\_\_\_  
\_\_\_\_\_

## Requirement 2

### OPTION A

For option A, use the areas below to show your collection of 10 species of trees. For the ten items you collected you can draw, paste or put a photo of it in each area. Next to each sample, list the ways each species of wood can be used.

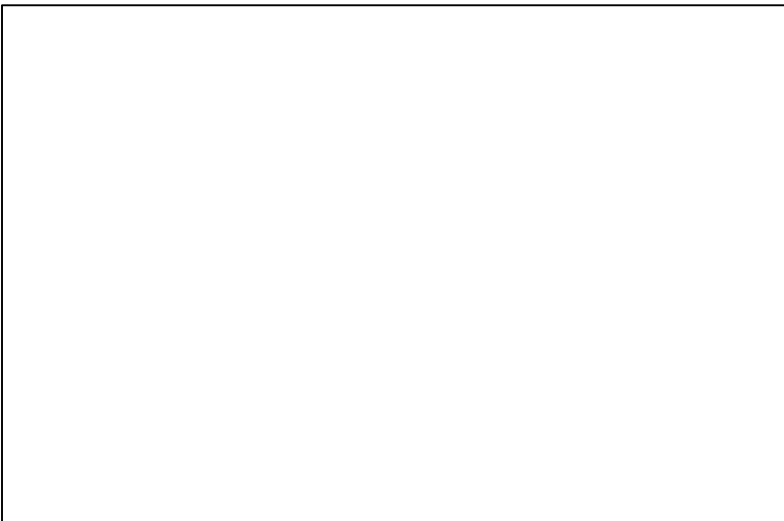
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

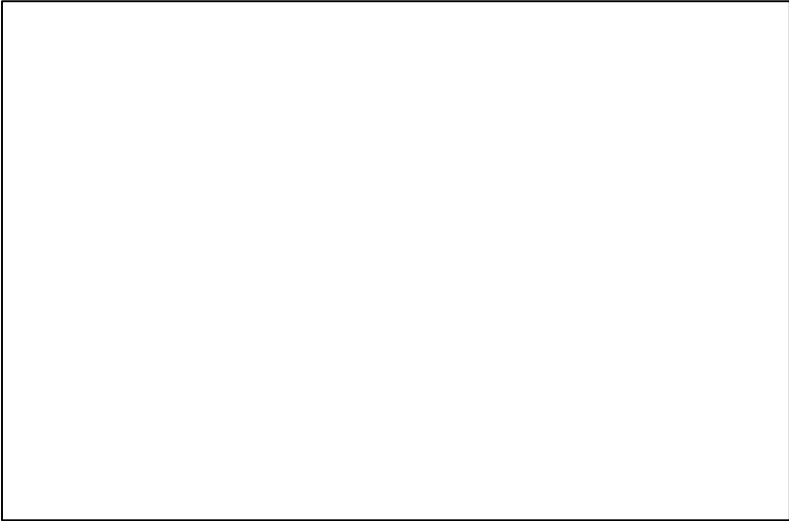
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

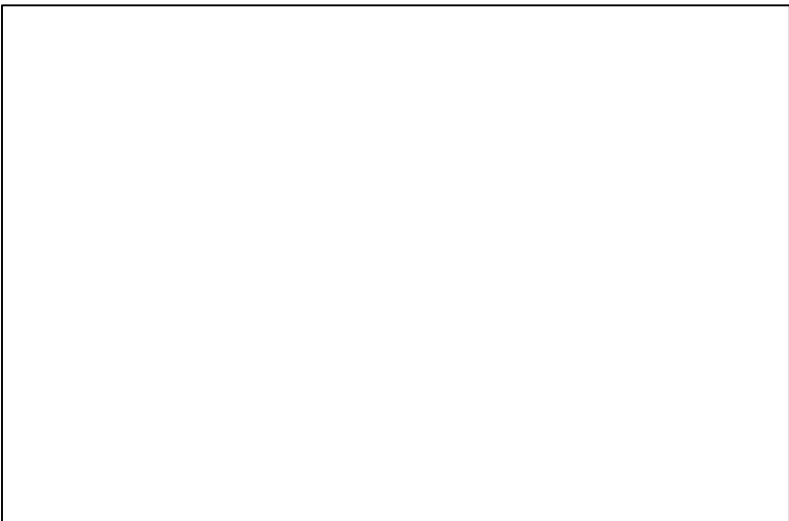
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

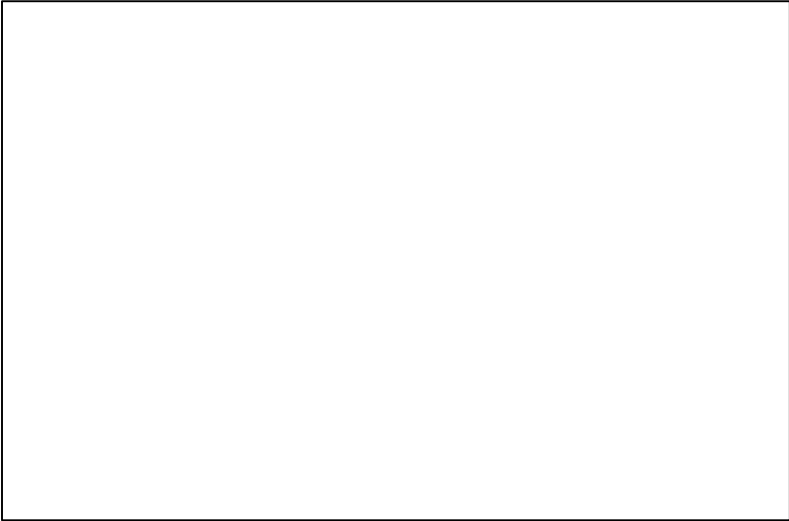
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_


Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

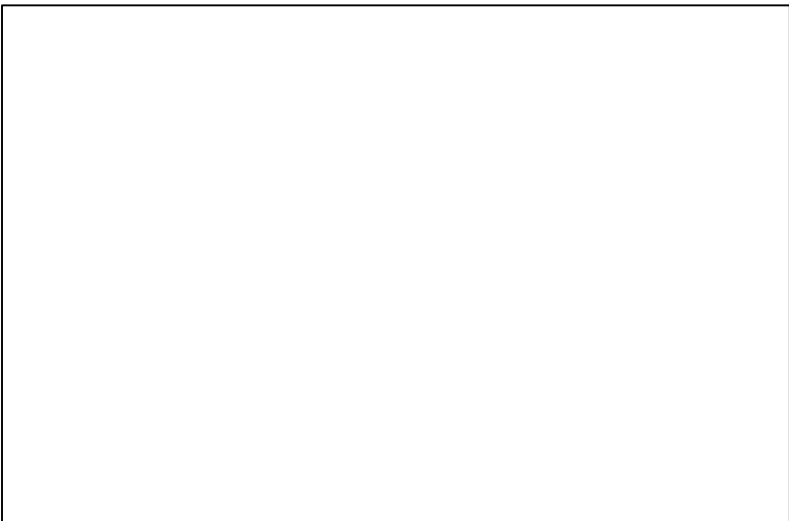
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

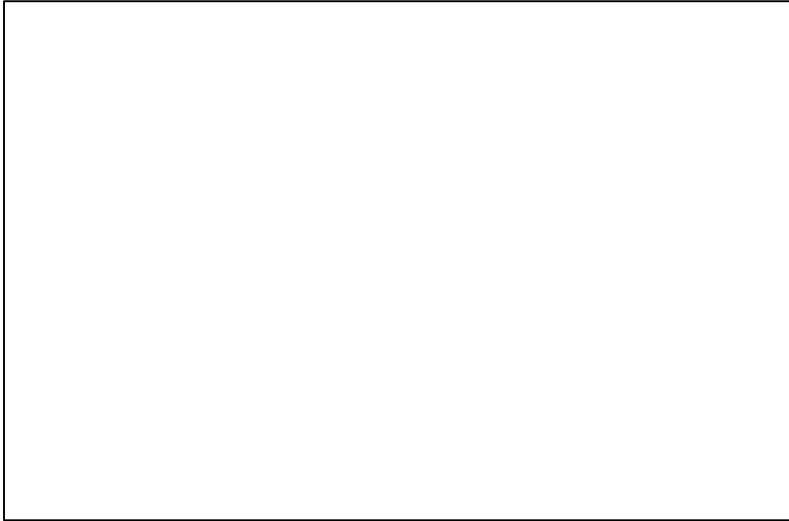
Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_

Species: \_\_\_\_\_



Ways this species can be used:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_





### Requirement 3

Describe the contributions forests make to the following:

Our economy in the form of products: \_\_\_\_\_

\_\_\_\_\_

Our social well being: \_\_\_\_\_

\_\_\_\_\_

Soil protection and increased fertility: \_\_\_\_\_

\_\_\_\_\_

Clean Water: \_\_\_\_\_

\_\_\_\_\_

Clean Air: \_\_\_\_\_

\_\_\_\_\_

Wildlife: \_\_\_\_\_

\_\_\_\_\_

Recreation: \_\_\_\_\_

\_\_\_\_\_

Which watershed or other source does your community rely on for its water supply? \_\_\_\_\_

\_\_\_\_\_

### Requirement 4

Describe what forest management means for each of the following areas:

Multiple-use management: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Even-aged and uneven-aged management and silvicultural systems associated with each type: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Intermediate cuttings: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How prescribed burning and related forest management practices are used: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Requirement 5

### *OPTION A*

Visit a managed public or private forest area with its manager or someone familiar with it. Answer the following questions:

What type of forest did you visit: \_\_\_\_\_  
\_\_\_\_\_

What are the management objectives of this forest? \_\_\_\_\_  
\_\_\_\_\_

What are the forestry techniques used to achieve the objectives? \_\_\_\_\_  
\_\_\_\_\_

Write a brief summary of your experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### *OPTION B*

Take a trip to a logging operation or wood-using industrial plant. Answer the following questions:

What were the species and sizes of the trees being harvested or used? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Where were the trees going to or coming from? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What products are made from the trees or at the plant? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How are the products made? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How are the products used? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How are the waste materials disposed of or utilized? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Write a brief summary of your experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Requirement 6

Describe the damages to forests that result from:

Wildfire: \_\_\_\_\_  
\_\_\_\_\_

Insects: \_\_\_\_\_  
\_\_\_\_\_

Tree Disease: \_\_\_\_\_  
\_\_\_\_\_

Overgrazing: \_\_\_\_\_  
\_\_\_\_\_

Improper Harvest: \_\_\_\_\_  
\_\_\_\_\_

What can be done to reduce these damages? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What should you do if you discover a forest fire? \_\_\_\_\_  
\_\_\_\_\_

How do you control a forest fire? \_\_\_\_\_  
\_\_\_\_\_

## Requirement 7

Do **ONE** of the following, then answer the question for the option you selected.

**A)** Assist in carrying out a project that meets on or more of these objectives: timber stand improvement, watershed improvement, wildlife habitat improvement, recreation improvement, or range improvement.

Which project did you do? \_\_\_\_\_

Give a brief summary of your experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B)** Take part in a forest fire prevention campaign in cooperation with your local fire warden, forester, or counselor.

Give a brief summary of your experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**C)** Visit with one or more local foresters and write a brief report including education, qualifications, career opportunities, and objectives relating to forestry: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_