

# Forestry and Forestry Products

## Unit Outline

1. Project Team Members: Wayne Sollenberger and Raylene Russell
2. Title of Course: Agricultural Science
3. Title of Unit or Project: Forestry and Forestry Products
4. Approximate length of Unit or Project: Three weeks
5. Brief description of the Unit or Project with an expected final outcome.

Students will be introduced to a variety of topics related to the forestry industry. Students will learn about basic tree structure, tree identification, careers in forestry, and processing products from the forest.

6. Major Goals of Unit:

The student will be able to:

1. Identify forestry career opportunities
2. Identify the parts of a tree cross-section
3. Identify trees based on their leaves and characteristics
4. Calculate board feet
5. Explain safe methods of logging/harvesting
6. Diagram the forestry industry from tree to product
7. Present information about a forestry product using resources and visual aids.
8. Create a correctly identified leaf collection

7. Sequence of balanced and integrated activities for students:

1. **Leaf Collection** – Each student will be required to create an individual leaf collection. The leaf collection will contain leaves from each of the different types of leaves discussed in class. The leaves must be securely mounted by some means in a photo album or on a poster, or in some other creative manner. Each leaf must be correctly identified and it must be a “real” leaf, not a photo. A minimum of 40 leaves must be included to receive full credit. (**Rubric #1**)
2. **Tree Identification** – Each student will complete a 2- section tree identification exercise. Each student will be required to correctly identify the tree species solely from the leaf inside the classroom. The student will also be required to correctly identify trees by looking at the tree leaf and the characteristics of the tree itself, outside. 25 trees will be identified. (**Rubric #2**)

3. **Products Presentation and Paper** – Each student or student group will be assigned a wood product or by-product in which to research. The paper should include product uses, production locations, information about the discovery of the product, pros and cons about the product, method of production (flowchart), and the future of this product. The student or group will also be required to convey these pieces of information to the rest of the class in a 3-5 minute presentation. A minimum of three visual aids must be incorporated into the presentation. (**Rubric #3**)
8. Checklist or rubric of assessment components for students:  
 Three rubrics are attached.  
 Complete the Unit test following the completion of the unit.
9. Specific Standards addressed in this Unit or Project:

<u>Ref. #</u>	<u>Name of Standard</u>	<u>Title of Individual Standard</u>
1.1.11 A	PA-RWSL	Reading Independently
1.2.11 A	PA-RWSL	Reading Critically
1.4.11 B	PA-RWSL	Types of Writing
1.6.11 C, F	PA-RWSL	Speaking and Listening
1.8.11 B	PA-RWSL	Research
2.2.11 A	PA-MATH	Computation and Estimation
2.3.11 A	PA-MATH	Measurement and Estimation
3.1.10 B, C	PA-ST	Unifying Themes
4.2.12 A, B	PA-EE	Renewable and Nonrenewable Resources
4.8.10 B	PA-EE	Humans and the Environment
13.2.11 B,C,D	PA-CEW	Career Acquisition
	SCANS	Reading
	SCANS	Writing
	SCANS	Listening
	SCANS	Speaking
	SCANS	Mathematics
2.1	PA-SAE	Safety Equipment
3.1	PA-SAE	Forestry Careers
6.1	PA-SAE	Forest Types
6.2	PA-SAE	Tree and Shrub Identification
11.1	PA-SAE	Forest Products

## Rubric #1

## Forestry Leaf Collection Grading Rubric

Name:

Description	Possible Points	Points Awarded
Neatly Arranged -All leaves secured -Leaves group by evergreen and deciduous	10	
Creativity -Originality	10	
Assignment submitted on time -Submitted by the end of the period on the due date	10	
Total number of leaves collected -Minimum 40 leaves required -Deduction of 5 points for each leaf less than the required	35	
Leaves correctly labeled -Every leaf labeled -Deduction of 5 points for each incorrectly identified leaf	35	
Total	100	

Grade according to the following scale:

- 100-93 Excellent
- 92-84 Very Good
- 83-74 Good
- 73-65 Satisfactory
- 64-0 Poor

Teacher Comments:

Rubric #2

## Tree Identification Worksheet

Name:

Date:

	Leaf Characteristics	Bark Characteristics	Tree Name	Points
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

23				
24				
25				
			Total	

Each tree is worth 4 points.

1 point for giving characteristics.

3 points for correct identification of tree.

## Rubric #3

### Forestry Products Presentation and Paper

Student: \_\_\_\_\_ Name of Product: \_\_\_\_\_

Description	Possible Points	Points Awarded
Research Sources - Minimum of 2 sources	5	
Flowchart - Easy to follow - Complete - Creativity	15	
Visual Aids - Minimum of 3 visual aids - Display the Product or by-product as one of the visual aids	5	
Length of Presentation - Presentation within the 3-5 minute window	10	
Voice - Easily heard - Spoke clearly	5	
Organization - Presentation easy to follow - Well organized	15	
Appearance - Students appropriately dressed	5	
Accuracy of Information - Information is current - Information is correct	10	
Research Paper - Typed	10	
Research Paper - Mechanics of grammar - Spelling	5	
Research Paper - Organization of the paper	10	
Total	100	

Grading:

100-94 Excellent; 92-84 Very Good; 83-74 Good 73-65 Satisfactory 64-0 Poor