



From The Woods

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PROGRAM

From the Woods is a series of educational fliers targeted for middle and high school youth. The series focuses on Pennsylvania's forests and wood products, topics that youth know very little about. The series include:

- *Forest Stewardship*
- *White-Tailed Deer*
- *Hardwood Lumber*
- *Sustainable Forestry*
- *Paper*
- *Hardwood Veneer*
- *Maple Syrup: A Taste of Nature*
- *Harvesting Trees*
- *Incredible Wood*
- *Watersheds*

Each flier in the series is four-pages long and filled with color photographs and graphics. Each flier has a downloadable lesson plan and evaluation experiences. Teachers in schools are using this series widely. Across the state, PA State Parks, Cooperative Extension offices, Conservation District offices, and the Department of Agriculture's educational "Woodmobile" are also using it.

The primary goal of the program is to increase youth knowledge and understanding about Pennsylvania's forest resources and wood products. Another goal is to achieve the wide distribution of *From the Woods* fliers (and their associated lesson plans) as hard copies and digital versions on the web.

This PA Example features evaluations for one of the fliers, *Hardwood Veneer*. An evaluation of the entire series is under development.

PROGRAM OBJECTIVES for the flier *Hardwood Veneer*

Impact Objectives for Youth

As a result of participating in the program, youth will know:

- the meaning and purpose of veneer
- steps in transforming logs into hardwood veneer
- at least 3 examples of how veneer is used
- the importance of veneer to Pennsylvania

Delivery Methods Objectives for Educators

As a result of conducting the program, instructors will believe that:

- the series of fliers are attractive and user friendly
- the fliers have the right amount of information for the instructional time frame
- the fliers are suitable for the recommended age group
- the lesson plans for each flier are useful, personalizing the subject matter
- the pre and post-experiences for each flier are effective
- the pre and post-experiences are convenient to use

EVALUATION STRATEGY

The forestry specialist designed two examples of an *experiential evaluation* for this flier. An *experiential evaluation* is interwoven into a program and is part of the learning experience. It elicits unobtrusive before/after data without the participant feeling that the experience is an evaluation, test, or survey.

DATA COLLECTION METHOD: EXPERIENTIAL

Design: The educational effectiveness of each flier in the series can be evaluated through the use of one of two pre and post-experiences designed especially for youth. Each experience is one-page in length, specific to the flier topic, and employs a selection of simple testing formats, such as fill-in the blank, matching, ordering, or a “crossword puzzle” so that the test is less onerous (“funner”) to youth. The same experience is intended for use before/after the flier is used as part of an educational activity. The examples of the pre and a post-experiences in evaluation for the *Hardwood Veneer* flier are featured below (see illustration). Educators who work directly with youth can find other pre-post experiences available for download on the *From the Woods* web page <http://sftfc.cas.psu.edu/FromWoods.html>.

Example 1:

Hardwood Veneer pre/post experience

Name: _____

Directions: Fill in the blanks with the correct letters. The letters given on the right provide a clue to the answer.

QUESTION
ON
KNOWLEDGE

1) ___ od

Veneer is a very thin layer of _____ sliced or peeled from a tree.

2) ___ d ___ t

Veneer's purpose is to cover a less valuable _____.

3) ___ a _____

Removes bark from logs.

4) _____ y

Veneer is made of the highest _____ logs.

5) ___ i ___ e ___

Logs are 'peeled' or _____ to produce veneer.

6) _____ oo ___

_____ is often made out of “peeled” veneer.

7) ___ t _____ al

_____ veneer is anything that tries to look like real wood veneer.

KNOWLEDGE
QUESTIONS

Directions: Answer the following statement to the best of your ability.

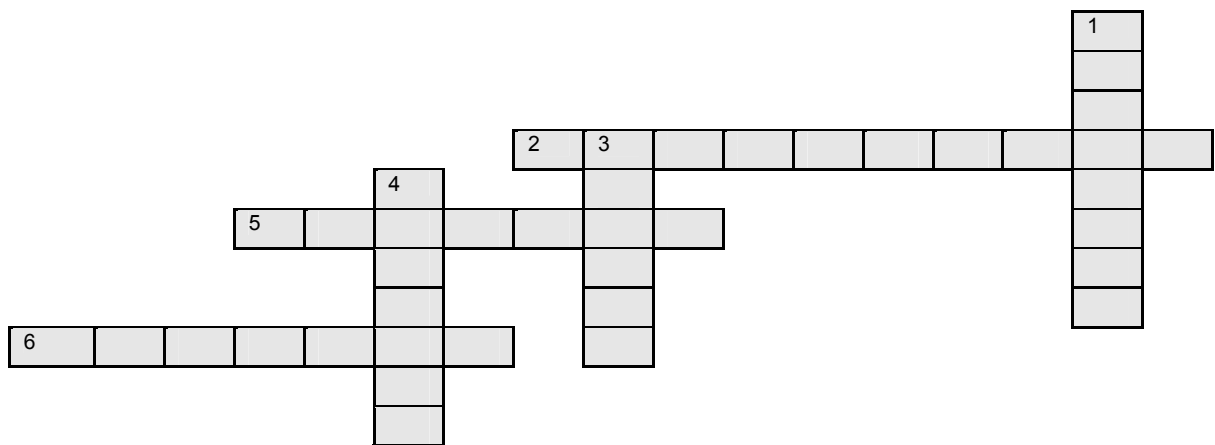
1. List three examples of how veneer is used.

2. Why is veneer made in the first place?

Example 2:
Hardwood Veneer pre/post experience

Name: _____

KNOWLEDGE
QUESTIONS



Across

2. Anything that attempts to look like real veneer

5. Veneer is made from high _____
hardwood and softwood trees

6. Made of several sheets of glued veneer
pressed together

Down

1. Removes bark from trees

3. Veneer that is often made into plywood

4. Logs for sawing into lumber

Directions: Place the following statements in the correct order according to the process of transforming logs into hardwood veneer.

KNOWLEDGE
QUESTIONS

- _____ logs are peeled or sliced
- _____ logs are sent through debarker
- _____ logs are cooked in a hot steam chamber or water vat
- _____ logs are transported to veneer plant
- _____ tree trunks are cut

DATA COLLECTION METHOD: EXPERIENTIAL (continued)

Advantages and Disadvantages: An experiential evaluation has many advantages. And like any evaluation, this one has some disadvantages.

The most obvious advantages of these evaluations benefit both educators and the youth. They include brevity, simplicity and convenience. For youth this type of evaluation doesn't seem like a test but more like part of the educational experience and it can be fun. Additionally, this type of evaluation *is* educational because it stimulates thoughts about the lesson on hardwood veneer. It reinforces learning, a very important component to consider in a short educational program.

The disadvantages are two, but both can be managed. The first one includes the difficulty that some youth might have with the skill needed to carry out the experience, such as a crossword puzzle. Youth might know the content but may be intimidated by the puzzle format and thus do poorly in reflecting their knowledge. An instructor would need to ascertain ahead of time, the ability of the youth to handle the skills needed for each type of experience.

The second disadvantage stems from one of the advantages, the fact that this type of evaluation is educational in that it stimulates thought prior to the activity. The pre-experience could prompt the youth to only seek to learn the answers to the questions in the pre-experience. This is called the testing effect (Campbell and Stanley, 1966).

The advantages far outweigh the disadvantages if the instructor is sensitive to the skills of the youth. In reporting the results of the evaluation, however, it is important to mention that the program, *along with the evaluation*, contributed to the learning.

REFERENCES FOR SIMILAR EVALUATIONS

- <http://puzzlemaker.school.discovery.com/>
- <http://sftrc.cas.psu.edu/FromWoods.html>
- http://www.compactbanner.com/adstream/start.php?site=teachnology&loc=1&menu=&rotation=30&url=http://www.teachnology.com/web_tools/crossword/
- <http://school.discovery.com/teachingtools/teachingtools.html>

For further information about the evaluation, please contact Sanford Smith (sss5@psu.edu). This Web site is copyrighted by the Pennsylvania State University. The information may be used for educational purposes but not sold for profit.