Unit 8: Occupations in the Woodworking Industry

Content Area: **Applied Technology**
Course(s):
Time Period: **Marking Period 1**
Length: **2-3 Days**
Status: **Published**

Brief Summary of Unit

Students will learn about the many occupational opportunities available to today's woodworker. They will learn about the college and /or technical education needed for these careers. Students will learn about the occupational outlook for these careers in terms of salary, future training and longevity.

Standards

HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
LA.RST.11-12.2	Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
LA.RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
LA.RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
HS-ESS3-4	Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
LA.11-12.CCSS.ELA-Literacy.CCRA.RL.1	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
TECH.8.1.12	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
TECH.8.2.12	Technology Education, Engineering, Design, and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Transfer

- • Students will be able to identify the various employment opportunities within the wood and

forest product industries.

- • Understand how a production line operates and consider aspects of mass production.

Essential Questions

- • What are the entry-level skills needed to obtain a position in the woodworking industry?
- • What careers are available in woodworking
- • What is “Forestry, Lumbering, Papermaking, Manufacturing, Construction, and Wood Science Technology, and how does it relate to the Woodworking industry?
- • What is a “Woodworking Industry”?
- • Which woodworking careers typically require advanced training or a college degree?

Essential Understandings

- • How to find information on a career in the woodworking industry.
- • That the wood and forest product industries offer a tremendous range of career opportunities.
- • The woodworking industries continue to steadily increase in importance and popularity.
- • What is meant by the term “Woodworking Industry”.
- • What the entry-level skills are needed to enter a woodworking field.
- • Wood is a natural resource that is renewable therefore the occupational outlook is not limited by shortage of materials.

Students Will Know

- • lumbering is an important part of the papermaking industry using 95 percent wood pulp for production.
- • more than 5000 industrial woodworking companies are located throughout the U.S., employing many semi-skilled employees.
- • the construction industry will require the greatest number of skilled workers in the years ahead.
- • the United States produces more than 1/3 of the worlds lumber.
- • the wood science industry requires advanced training or degrees but offer the greatest potential for earnings
- • the woodworking industry includes the manufacturing and design of woodworking machinery.
- • there are many opportunities available in the woodworking industries Forestry management is more than making the most of a tree. It also provides for growing more trees faster on existing land.

Students Will Be Skilled At

- • How to find information on a career in the woodworking industry .
- • That the wood and forest product industries offer a tremendous range of career opportunities.
- • The woodworking industries continue to steadily increase in importance and popularity.

- • What is meant by the term “Woodworking Industry”.
- • What the entry-level skills are needed to enter a woodworking field.
- • Wood is a natural resource that is renewable; therefore the occupational outlook is not limited by shortage of materials.

Evidence/Performance Tasks

- • be able to search the Internet to identify various career opportunities in the woodworking fields.
- • be able to use the Internet to list environmental occupations associated with the woodworking industry.
- • complete writing prompt related to careers in woodworking.
- • know how to find opportunities available to them using the Internet as well as newspapers, trade magazines and job fairs.
- • actively and meaningfully participate in all classroom activities and discussions.
- • be able to demonstrate proficiency in assembling information on a specific occupation.
- • be able to determine the outlook for a specific career using the many sites found on the Internet.
- • be able to identify and list the required training needed for a position.
- • complete a self—assessment rubric.
- • demonstrate knowledge and understanding of shop safety procedures at all times.

Learning Plan

- • Have students self – evaluate their finished work using rubric
- • Introduce the “Occupational Outlook Handbook”
- • Present lesson on woodworking occupations.
- • Present the lesson on careers in the woodworking industry.
- • Utilizing the Internet, compare and contrast various occupations listing their pros and cons
- • Allow students to work independently to research careers using the computer and the Net.
- • Have students construct create a spreadsheet showing various woodworking jobs listing their entry level skills as well as their salary.
- • Preview the essential questions and connect to learning throughout the unit. Introduce the essential questions and new vocabulary.
- • Read and discuss the relevant selections in the woodworking textbook.
- • Writing prompts as homework, sharing and evaluation in class.

Materials

- DVD ,
- occupational outlook handbook ,
- Text book Modern Cabinet Making Goodheart-Wilcox ,
- various product industries

Suggested Strategies for Modifications

- • assessment based on individual development in the area of study
- • audio tape of instruction
- • cooperative learning groups
- • one-to-one instruction and assistance
- • preferential seating
- • study partners
- • testing materials appropriate to student level
- • additional time on task
- • alternative outcome options
- • handouts of notes, procedures, processes, diagrams, etc.
- • images and visual aids
- • reading material modified to student level
- • revised techniques, use of tools and media in hands-on activity