Woodworking III: Independent Learning

Stage 1 Desired Results

ESTABLISHED GOALS:

Competencies:

- ***Students will demonstrate the ability to safely and properly select, use and maintain equipment, materials, and processes in order to avoid injury and harm.***
- ***Students will demonstrate the ability to effectively plan and complete a project in order to develop a solid work ethic, and to accept individual responsibility.***
- ***Students will demonstrate the ability to apply critical thinking and problem solving in order to meet given expectations.***
- ***Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.***
- ***Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.***
- ***Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style.***

Content Standards

New Hampshire Vocational Curriculum guide:

- Standard 1: Students will develop an understanding of the characteristics and scope of technology.
- Standard 2: Students will develop an understanding of the core concepts of technology.
- Standard 8: Students will develop an understanding of the attributes of design.
- Standard 9: Students will develop an understanding of engineering design.
- Standard 10: Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- Standard 11: Students will develop the abilities to apply the design process.
- Standard 12: Students will develop the abilities to use and maintain technological products and systems.
- Standard 13: Students will develop the abilities to assess the impact of products and systems.
- Standard 19: Students will develop an understanding of and be able to select and use manufacturing technologies
- Standard 20: Students will develop an understanding of and

Transfer

Students will be able to independently use their learning ***to think critically and solve problems.***

Meaning

ENDURING UNDERSTANDINGS

Students will understand that…

- thorough research will affect the outcome of a project.
- advanced processes result in more advanced projects.
- Design principles and proper planning will lead to the overall success of a project.

ESSENTIAL QUESTIONS

- What determines success in a project?

Acquisition

Students will know…

- that a plan for production involves making efficient and effective decisions related to materials, tools, tooling and processes.
- that designs have both form and function
- that the purpose of the project to fulfill a desired need.
- that the different decisions to be made about lumber, adhesives, mechanical fasteners or joinery in a project affect the outcome of the project.

Vocabulary: Bill of materials, board foot, design, dimension, exploded view, function, layout, proportion, scale, working drawing.

Students will be skilled at…

- planning for production: making efficient and effective decisions related to materials, tools, tooling and processes.
- applying the principles of form and function as related to design.
- interpreting a project plan and comparing alternative design plans.
- making informed decisions about proper lumber selection for a given application.
- determining the most effective material to satisfy project needs
- determining effective construction procedures.
- distinguishing between different period pieces.
- planning for production by making effective decisions related to materials, tools, tooling, and processes

be able to select and use construction technologies.		
Content Area Literacy Standards		***21st Century Skills***
RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. RST.11-12.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words. WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.		● *Use and manage information* ● *Apply technology effectively* ● *Be self-directed learners* ● *Interact with others* ● *Solve problems*

Stage 2 - Evidence

Evaluative Criteria	***Assessment Evidence***
	OTHER EVIDENCE:

Stage 3 – Learning Plan

Language Arts Integration	***Mathematics Integration***
● 1.OA.1 Use	● 1.OA.1 Use

Technology Integration	***District Materials***
● 1.OA.1 Use	