



6th Grade Industrial Technology Middle School Elective Wheel

Board Approved: March 21, 2024

Course Information

Course Description:

This course provides foundational skills that can help propel students into career pathways in in-demand construction trades and manufacturing industries. Students will learn how to apply introductory concepts in tools, measuring and problem solving to safely and accurately complete basic woodworking projects.

Transfer Goals:

Safely and accurately follow directions to create a basic woodworking project.

State Standards: [DESE Career Pathways for Constructions Trades](#)

Curriculum Resource(s): *Exploring Woodworking, 8th Edition*

*Priority standards indicated in **bold***

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BOE Approved: 3/21/2024

Patrons with questions about the course should contact curriculum@fhsdschools.org

Unit 1: Introduction to Industrial Technology

Timeframe: 2 weeks, ongoing throughout course

Unit Description: Students will learn measuring using a standard ruler, tool names and uses, and basic shop safety rules. Students will take and pass a safety test during this unit which is a requirement to begin to use the shop tools and equipment.

Enduring Understandings:

- Measuring using a standard ruler is an important skill in accurately creating woodworking projects.
- Knowing the name of basic hand tools and the proper use of each is important when building projects.
- Safety is the main priority in the shop and there could be negative consequences to breaking safety rules.

Essential Questions:

- How could being able to measure accurately impact my finished project?
- What tools would be appropriate to use on my project?
- What tools could I use around my own home in the future?
- Why is it important to know and understand safety procedures in the shop area?
- How can knowing and understanding safety procedures and techniques help me stay safe in other settings besides the woodshop?

Unit 1 Standards

STANDARD CODE	STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:
BS 1	I can explain the idea of a safety culture and its importance in the construction crafts
Math 2	I can use a standard ruler and a measuring tape to measure
HT 1	I can recognize and identify some of the basic hand tools and their proper uses in the construction trade
Comm 1	I can interpret information and instructions presented in both verbal and written form
BS 2	I can identify causes of accident and impact of accident costs
Emp 1	I can explain the role of an employee in the construction industry

*Priority standards indicated in **bold***

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Unit 2: Applying Skills in Industrial Technology

Timeframe: 7 weeks

Unit Description: Students will apply skills in tool use, measuring, and following directions to build an entry-level woodworking project while practicing safe hand tool techniques.

Enduring Understandings:

- Proper tool techniques result in high-quality projects made safely.
- Making mistakes and finding a solution to them is an essential part of the building process.
- Being able to follow multi-step directions in a project is important to proper completion.

Essential Questions:

- Why is using the correct tool for its intended purpose important?
- How can using the correct tool, in the correct manner, improve both your finished project and your overall safety?
- How can I overcome flaws in my lumber, project, or my own mistakes?
- How is my project affected if I skip a step or don't thoroughly complete it?

Unit 2 Standards

STANDARD CODE	STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:
BS 1	I can explain the idea of a safety culture and its importance in the construction crafts
Math 2	I can use a standard ruler and a measuring tape to measure
HT 1	I can recognize and identify some of the basic hand tools and their proper uses in the construction trade
HT 3	I can safely use hand tools
Comm 1	I can interpret information and instructions presented in both verbal and written form
BS 2	I can identify causes of accident and impact of accident costs

*Priority standards indicated in **bold***

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BS 10	I can demonstrate the use and care of appropriate personal protective equipment (PPE)
PT 2	I can use power tools safely
Comm 2	I can communicate effectively in on-the-job situations using verbal and written skills
BMFA 1	I can identify various types of building materials and their uses
Emp 1	I can explain the role of an employee in the construction industry