

Unit 2 - Hand Tools & Process

Content Area: **Arts**
Course(s): **Wood Arts Tec 1**
Time Period: **Semester 1**
Length: **4 Weeks**
Status: **Published**

Standards

VA.K-2.1.5.2.Cr1a	Engage in individual and collaborative exploration of materials and ideas through multiple approaches, from imaginative play to brainstorming, to solve art and design problems.
VA.K-2.1.5.2.Cr2b	Demonstrate safe procedures for using and cleaning art tools, equipment and studio spaces.
VA.K-2.1.5.2.Pr5a	Explain the purpose of a portfolio or collection. Ask and answer questions regarding preparing artwork for presentation or preservation.
MA.K.G.A.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
CS.K-2.8.1.2.AP.4	Break down a task into a sequence of steps.
CS.K-2.8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
CS.K-2.8.2.2.ED.3	Select and use appropriate tools and materials to build a product using the design process.
CS.K-2.8.2.2.ITH.2	Explain the purpose of a product and its value.

Essential Questions

1. What is the purpose of hand tools and what value do they have in our society?
2. How can a portfolio be useful for the future?
3. How do artists and designers safely experiment with tools to design and create?
4. How can 2-D shapes be drawn using hand tools?

Enduring Understanding

1. Hand tools are types of early technologies used to build and shape raw materials
2. Documenting the creation process and creating a final portfolio is how artists and engineers communicate their work and show ownership.
3. Tool selection and safety influence the design process and allow for the exploration to modify raw materials.
4. Measurement and layout of a design on lumber requires precision and experimentation.
5. Most woodworking plans require a two-dimensional shape to be drawn so tools can be utilized to shape it into a three-dimensional shape.

Knowledge & Skills

Design Process & Hand Tools Students Will Be Able To:

- Safely practice with hand tools and identify their purpose.
- Create a project using hand tools.
- Document a products process of creation using digital tools to make a portfolio.
- Identify simple machines and current hand tools that model their principals.
- Identify the impact of hand tools on our early society.

Tools:

- Handsaw
- Carpenters Brace
- File
- Coping Saw
- Tenon Saw
- Pull Saw
- Hand drill
- Measurement Tools
 - Squares
 - Measuring Tape
 - Scales
 - Compass

Transfer Goals

1. Students will be able to create an portfolio to document their design process and creations that can be highlighted for future applications or art shows.
2. Students will be able to experiment with hand tools safely using proper personal protective equipment and tooling methods.

Resources

Hand tools:

- Back Saw
- Tenon Saw
- Coping Saw
- Pull Saw

- Squares
- Compass
- Drawing Templates
- Hand Drill
- Carpenters Brace
- Rulers
- Measuring Tape
- Scales and Rulers

Materials:

- Wood Blanks
- Cleaning Tools - Brushes, Brooms, Ect.
- Chromebooks
- Drawing Tools

Assessments

[Assessments](#)

Modifications

[Modifications](#)