Unit 1 - Design & Technology

Content Area: **Arts**
Course(s): **Wood Arts Tec 1**
Time Period: **Semester 1**
Length: **2 Weeks**
Status: **Published**

Standards

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.
1.5.2.Cr2a	Through experimentation, build skills and knowledge of materials and tools through various approaches to art making.
MA.K.MD.A	Describe and compare measurable attributes.
8.2.2.ED.1	Communicate the function of a product or device.
8.2.2.ITH.1	Identify products that are designed to meet human wants or needs.
8.2.2.ITH.3	Identify how technology impacts or improves life.

Essential Questions

1. How are products of technology created and made available for our utilization, and what roles do design, art, and engineering play in this process?

2. What careers rely heavily on the ability to measure, and how does measurement inform effective design in technology and engineering?

3. How does the iterative design process influence and shape creations across the fields of technology, art, and engineering?

Enduring Understandings

1. Students will understand that technology is a dynamic and exponential process of creation, focused on designing products to meet human needs and wants.

2. Students will understand that the design process, aided by products of technology and expressed through drawing, fosters imaginative solutions in art and engineering.

3. Students will understand that accurate measurement is crucial for proper product design, problem-solving, and effective communication in building and creation.

Knowledge & Skills

Design and Technology Students Will Be Able To:

- Identify Technology as a Product, System, and Resources.

- Measure using a ruler and the imperial system of measurement.
- Describe a product by its size using measurement.
- Create and Orthographic Drawing of an object.

- Analyze the Influence of lumber and wood products on society.

- Identify risks and trade-offs of technology.

- Understand Art and Engineering must work together in design.
- Communicate designs through drawing.
- Identify the areas of technology and their interconnectivity.

Tools:

- Ruler
- Scale
- Square
- Measuring Tape
- Compass

Resources

- Pencils
- Paper
- Blocks for practicing drawing
- Products of technology for examples
- Presentations on areas of technology
- Rulers
- Drawing templates - Shapes and Circles

Transfer Goals

1. Students will be able to identify materials used for product creation and the areas of technology it utilizes to become available for human use.

2. Students will be able to draw an object based on its measurement.

Assessments

Assessments

Modifications

Modifications