Introduction to Technology Education

Content Area: **Technology**
Course(s): **Tech and Eng Design Lab 1, 2**
Time Period: **September**
Length: **4 Weeks**
Status: **Published**

Transfer

Introduction to Technology Education

Enduring Understandings

The design loop is the process used in problem solving applications.

Technology education is an essential part of our ever-changing world.

Safety is number one priority in the technology lab.

Essential Questions

How is technology education different then learning about computers?

What is the difference between the natural and design worlds?

Why is it important to know the resources of technology?

What is the design process and how is it applied to problem solving?

Content

Vocabulary

technology, education, design world, natural world, man-made, nature, science, STEM, design process/loop, scientific method, resources, time, material, energy, people, money, tool/machines, information, space, construction, communication/information, manufacturing, transportation, power/energy, medical, agriculture/biotechnology, digital citizenship, thinking outside the box, following directions, safety

Learning Objectives

Interpret the difference between computers and technology.

Compare and contrast the similarities and differences between things made in nature and things that are man-made.

Compose a list of the 7 areas of the design world and explain each of them.

Categorize the 8 resources of technology.

Justify the use of the design process and correlate it to problem solving.

Communicate the importance for being descriptive and following directions.

Validate the need to practice safety in the classroom.

Distinguish the proper behavior to be used while using technology.

Resources

Standards

TECH.8.1.8	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.8.1.8.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
TECH.8.1.8.B.1	Synthesize and publish information about a local or global issue or event (ex. telecollaborative project, blog, school web).
TECH.8.1.8.D.1	Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media.
TECH.8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
TECH.8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.
TECH.8.2.8.B.1	Evaluate the history and impact of sustainability on the development of a designed product or system over time and present results to peers.
TECH.8.2.8.B.2	Identify the desired and undesired consequences from the use of a product or system.
TECH.8.2.8.B.3	Research and analyze the ethical issues of a product or system on the environment and report findings for review by peers and /or experts.