

Unit 01: Safety (2 weeks)

Content Area: **Template**
Course(s):
Time Period: **Full Year**
Length: **FY**
Status: **Published**

Standards Alignment

NEW JERSEY STUDENT LEARNING STANDARDS: 21st CENTURY AND CAREERS

TECH.K-12.P.1	Act as a responsible and contributing community members and employee.
TECH.K-12.P.3	Consider the environmental, social and economic impacts of decisions.
TECH.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
TECH.K-12.P.6	Model integrity, ethical leadership and effective management.

NEW JERSEY STUDENT LEARNING STANDARDS: COMPUTER SCIENCE AND DESIGN THINKING

CS.6-8.8.2.8.ED.1	Evaluate the function, value, and aesthetics of a technological product or system, from the perspective of the user and the producer.
CS.6-8.8.2.8.ED.4	Investigate a malfunctioning system, identify its impact, and explain the step-by-step process used to troubleshoot, evaluate, and test options to repair the product in a collaborative team.
CS.6-8.8.2.8.NT.1	Examine a malfunctioning tool, product, or system and propose solutions to the problem.
CS.6-8.8.2.8.NT.4	Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

Stage I: Desired Results

Transfer/Overview/Rationale

Transfer / Overview / Rationale

Unit Rationale
The purpose of this unit...

Meaning

Essential Questions

Essential Questions

Why is it necessary to follow safety rules when working in the shop?

Why is it important to dress appropriately when working in the shop and how does it impact safety?

Why is it necessary to handle equipment and resources properly?

Enduring Understanding/Indicators of Understanding

Enduring Understanding/Indicators of Understanding

Basic safety rules must be followed to provide a safe environment for all students working in the shop.

Proper attire, including wearing safety glasses, must be worn when working in the shop.

Proper use and handling of equipment and resources must be utilized when working in the shop.

Acquisition (Student Learning Objectives)

Knowledge

Knowledge

Students will know...

Safety rules must be followed at all times by all students when working in the shop, not only for their own safety, but the safety of all students.

Students will wear safety glasses not only because it is a classroom rule, but it is also a state law.

Students will keep long hair secured so it does not get caught in equipment.

Students will understand that clothing and jewelry can get caught in equipment.

Students will the proper use of equipment and resources has a direct impact on the safety of all students working in the shop.

[Woodworking General Safety Information.docx](#)

Skills

Skills

Student will be skilled at ...

Students will demonstrate the proper safety guidelines when working in the shop.

Students will be dressed appropriately when working in the shop area by always wearing safety goggles, proper footwear, long hair secured, jewelry removed, etc.

Students will have equipment adjusted properly so that guards are always in place when using equipment.

Stage 3: Learning Plan

Resource and Mentor Texts

Resources and Mentor Texts

Study guide

Posters

Tools and equipment for lecture and demo

Formative Assessment Strategies

Formative Assessment Strategies

Teacher observation

Proper safety techniques used by students

Learning Activities/Unit of Study

Learning Activities/Unit of Study

Study guide handout

Teacher lecture and demonstration

Tour of the shop throughout the lecture

Modifications and/or Accommodations

Suggested Modifications (ELL, Sp. Ed, Gifted, At-risk of Failure)

English Language Learners

Native language support: The teacher provides auditory or written content to students in their native language.

Adjusted Speech: The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and speaking more slowly.

Visuals: The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

Front-Loading Vocabulary: The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

Special Education Students

Chunking: The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

Checking for Understanding: It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

Extra time: The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

Oral Reading: The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

Timers: The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how

much time they have to complete an assignment.

Students with 504 Plans

Chunking: The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

Checking for Understanding: It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

Extra time: The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

Gifted & Talented Strategies

Extensions/Enrichments: Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply acquired knowledge, and/or to produce something in reference to acquired knowledge.

Modify/Change Activities: Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

Students at Risk of School Failure

Directions or Instructions: Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure he/she hasn't forgotten.

Peer Support: Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

Alternate or Modified Assignments: Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just

may be that you will need to assign an alternate assignment.

Increase One to One Time: When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

Contracts: It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

Hands On: As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

Tests/Assessments: Tests can be done orally if need be. Break tests down in smaller increments by having a portion of the test in the morning, another portion after lunch and the final part the next day.

Seating: Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.