# Unit 1: General  Construction Lab Safety

Content Area: **Industrial Technology**
Course(s): **Construction Technology II**
Time Period: **1 marking period**
Length: **1 Weeks**
Status: **Published**

## Unit Overview

Students will be able to identify possible Safety Hazards in the Laboratory and where safety items are located in the shop.

## Transfer

Students will be able to independently use their learning to...

-Work Safely in any work environment.

Be able to select the correct fire extinguisher to put out fires.

When they should or should not flush their eyes with an eyewash station.

Be able to identify what emergency stop buttons are designed to do/

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For more information, read the following article by Grant Wiggins.

http://www.authenticeducation.org/ae_bigideas/article.lasso?artid=60

## Meaning

Students will be able to store flammables correctly. Access safety features in the lab such as: Emergency Power Shut offs,  Eyewash station and Shower, Fire Extinguishers and Fire Blanket, First Aid Kits.

## Understandings

Students will understand that...

-Where the location of emergency items are located in the shop in the event of an accident or fire in the Construction Laboratory.

Students will realize that if someone including the insstructor is hurt or on fire where the items are located to aid that person.

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| 9.3.12.AC.3 | Comply with regulations and applicable codes to establish and manage a legal and safe workplace. |

## Essential Questions

Students will keep considering...

Students will be asked what they would do in different scenarios in the event that someone including themselves were hurt or on fire in the Construction Technology Lab.

## Application of Knowledge and Skill

Students will be able to work safely in the lab and apply the skills they have acquired in the event of an accident.

## Students will know...

Students will know...

Where emergency shut offs for electrical power is located in the lab and when to use them.

Where the emergency eyewash and shower are located and when they should use them.

Where the flammable fire cabinet is located and why flammables and any chemicals related to Construction Technology that is flammable should be stored in it.

Where the fire extinguisher and fire blanket are located and what type of fire extinguishers should be used on what type of fire and how the fire blanket is used for fires and treatment of shock.

## Students will be skilled at...

Students will be skilled at...

How to deal with emergencies that may occur in the Construction Technology Laboratory.

## Academic Vocabulary

Spontaneous Combustion, Flammable, Combustible, Electrical Shock, Medical Shock

## Learning Goal 1

SWBAT identify safety items in the Construction Technology Lab.

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| 9.3.12.AC-CST.5 | Apply practices and procedures required to maintain jobsite safety. |
| 9.3.12.AC-MO.1 | Recognize and employ universal construction signs and symbols to function safely in the workplace. |

## Target 1

Students will be able to identify location and correct usage of emergency power cut off switches,

## Target 2

Student will be able to identify signs and locations of fire safety equipment, fire extinguisher, flammable cabinet, eyewash and emergency shower and the reasons why they are located in the Construction Technology Laboratory.

## Formative Assessment and Performance Opportunities

Students will be given the opportunity to demonstrate hands on how the safety and fire equipment in the Construction Technology Lab works.

## Summative Assessment

Students will be given a test on Safety in the Construction Technology Lab.

## Accommodations/Modifications

Students with modifications will be given the opportinity to retake the Safety Test.

## Unit Resources

You Tube videos on fire safety, flammables and Medical Injuries related to Construction Technology.

## 21st Century Life and Careers

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| CAEP.9.2.12.C.3 | Identify transferable career skills and design alternate career plans. |

## Interdisciplinary Connections

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| HPE.2.1.12 | All students will acquire health promotion concepts and skills to support a healthy, active lifestyle. |
| HPE.2.1.12.A | Personal Growth and Development |
| HPE.2.1.12.A.1 | Analyze the role of personal responsibility in maintaining and enhancing personal, family, community, and global wellness. |
| HPE.2.1.12.A.2 | Debate the social and ethical implications of the availability and use of technology and medical advances to support wellness. |
| HPE.2.1.12.A.CS1 | Developing and maintaining wellness requires ongoing evaluation of factors impacting |

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| | health and modifying lifestyle behaviors accordingly. |
| HPE.2.1.12.D | Safety |
| HPE.2.1.12.D.1 | Determine the causes and outcomes of intentional and unintentional injuries in adolescents and young adults and propose prevention strategies. |
| HPE.2.1.12.D.2 | Explain ways to protect against abuse and all forms of assault and what to do if assaulted. |
| HPE.2.1.12.D.3 | Analyze the relationship between alcohol and drug use and the incidence of motor vehicle crashes. |
| HPE.2.1.12.D.4 | Develop a rationale to persuade peers to comply with traffic safety laws and avoid driving distractors. |
| HPE.2.1.12.D.5 | Summarize New Jersey motor vehicle laws and regulations and determine their impact on health and safety (e.g., organ/tissue donation, seatbelt use, and the use of hand-held devices). |
| HPE.2.1.12.D.CS1 | Evaluating the potential for injury prior to engaging in unhealthy/risky behaviors impacts choices. |
| HPE.2.1.12.D.CS2 | Applying first-aid procedures can minimize injury and save lives. |
| SCI.HS | Engineering Design |
| SCI.HS-ETS1-3 | Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts. |
| SCI.HS-ETS1-2 | Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. |
| SCI.HS-ETS1-4 | Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. |
| SCI.HS-ETS1-1 | Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. |
| TECH.8.1.12 | 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.8.1.12.A | Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. |
| TECH.8.1.12.A.CS1 | Understand and use technology systems. |
| TECH.8.1.12.A.CS2 | Select and use applications effectively and productively. |
| TECH.8.1.12.B | Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology. |
| TECH.8.1.12.C | Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. |
| TECH.8.1.12.D | Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. |