

**Course:** *Construction, Building, Contracting*  
**Unit #1 - Safety**

**Year of Implementation:** 2023-2024

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## Stage One - Desired Results

**Link(s) to New Jersey Student Learning Standards for this course:**

<https://www.state.nj.us/education/cccs/2020/>

- **Unit Standards:**

- **21st Century Life & Career Standards**

- 9.3.MN-HSE.1 Demonstrate the safe use of manufacturing equipment.
- 9.3.MN-HSE.3 Demonstrate a safety inspection process to assure a healthy and safe manufacturing environment.
- 9.3.12.AC-CST.5 Apply practices and procedures required to maintain jobsite safety.
- 9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals.
- 9.3.MN-PRO.2 Manage safe and healthy production working conditions and environmental risks
- 9.3.MN-PPD.3 Monitor, promote and maintain a safe and productive workplace using techniques and solutions that ensure safe production of products.

- **English Companion Standards**

- Grade 9-10 Companion Standards:
  - RST.9-10.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
- Grade 11-12 Companion Standards:

- RST.11-12.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
- ***NJ Statutes:*** NJ State law mandates the inclusion of the following topics in lesson design and instruction as aligned to elementary and secondary curriculum.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A. 18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Diversity and Inclusion (N.J.S.A. 18A:35-4.36a) A board of education shall incorporate instruction on diversity and inclusion in an appropriate place in the curriculum of students in grades kindergarten through 12 as part of the district's implementation of the New Jersey Student Learning Standards.

Asian American and Pacific Islanders (AAPI) P.L.2021, c.410 Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSL) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416)

For additional information, see

**NJ Amistad Curriculum:** <http://www.njamistadcurriculum.net/>

**Diversity and Inclusion:** <https://www.nj.gov/education/standards/dei/index.shtml>

- (Sample Activities/ Lessons): <https://www.nj.gov/education/standards/dei/samples/index.shtml>

**Asian American and Pacific Islanders:**

- [Asian American and Pacific Islander Heritage and History in the U.S.](#)

*A Teacher's Guide from EDSITEment offering a collection of lessons and resources for K-12 social studies, literature and arts classrooms that center around the experiences, achievements and perspectives of Asian Americans and Pacific Islanders across U.S. history.*

**Transfer Goal:** Students will be able to independently use their learning to identify, select, and use the appropriate hand tool(s) safely and accurately to construct a given project.

As aligned with LRHSD Long Term Learning Goal(s):

- communicate and collaborate using appropriate technical terms to describe, analyze, interpret, and judge their work and the work of others
- acquire, integrate, and apply design processes and essential technical skills to solve problems, create products, and improve the quality of life for our local and global community

Enduring Understandings

Students will understand that. . .

*EU 1*

the implementation of proper safety procedures in a shop will minimize potential hazards.

Essential Questions

*EU 1*

- Why is safety important?
- How does behavior and mindset affect safety?
- How does organization and other aspects of the work environment affect safety?

*EU 2*

each tool and piece of equipment has a specific set of operations.

*EU 2*

- How does the maintenance and condition of tools and machines impact safety?
- Why does the sequence of operations for each tool or piece of equipment matter?
- How do you determine the proper tool or piece of equipment for a given task?

Knowledge

*Students will know . . .*

*EU 1*

- proper classroom procedures.(9.3.MN-PRO.2, 9.3.MN-PPD.3)
- proper personal protective equipment.(9.3.MN-PRO.2, 9.3.MN-PPD.3)
- proper safety protocol.(9.3.MN-PRO.2, 9.3.MN-PPD.3)

*EU 2*

- the form, function, and safe application of hand tools. (9.3.12.AC-CST.9)
- the form, function, and safe application of power tools. (9.3.12.AC-CST.9)

Skills

*Students will be able to . . .*

*EU 1*

- demonstrate proper general lab safety.(9.3.MN-PRO.2, 9.3.MN-PPD.3)
- select and use personal protective equipment. (9.3.MN-PRO.2, 9.3.MN-PPD.3)
- identify potential hazards on a job site. (9.3.MN-PRO.2, 9.3.MN-PPD.3)

*EU 2*

- demonstrate the proper safety and function of hand and power tools.(9.3.12.AC-CST.9)
- select the appropriate tool for a required task. (9.3.12.AC-CST.5)

- the proper sequence of operations for each tool.  
(9.3.12.AC-CST.5)

**Stage Two - Assessment**

**Stage Three - Instruction**

**Learning Plan: Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections:** Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy): *Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection*

- Teacher led discussions on shop safety and hand/power tool usage (A EU1,2)
- Demonstrations on hand/power tool usage.(A,M, EU2)
- Student note taking on safety(A, EU1,2)
- Practice new skill sets on hand and power tools (M, EU1,2)
- Create a safety and operations worksheet outlining the function of given tools (M,T EU2)
- Teacher demonstrations on appropriate PPE selection, form and function (M, EU1,2)
- Students demonstrate proper PPE selection and use in varying situations (M,T, EU1,2)
- Student demonstrations of proper operation and sequencing of tools (M,T, EU1,2)
- Student journaling (M,T EU1,2)

## Pacing Guide

<b>Unit #</b>	<b>Title of Unit</b>	<b>Approximate # of teaching days</b>
1	Safety	20
2	Reading, Sketching, and Design	30
3	Sub Contracting	50
4	Framing and Rough Carpentry	80

### **Instructional Materials**

A fully equipped shop including but not limited to:

Hand Tools (Hammers, Pliers, Screwdrivers, Nutdrivers, Wrenches, Squares, Tin Snips, Chisels, Cross Cut Saws, Mallets, Putty Knives, Measuring Tapes, Utility Knives, Wire Strippers, Rulers, Caulk Guns, Paint Brushes, Chalk Line)

Power Tools (Cordless Drills, Impact Drivers, Cordless Circular Saws, Cordless Jig Saws, Cordless Reciprocating Saws, Cordless Routers, Cordless Framing Nailers, Cordless Finishing Nailers, Cordless Stapler)

Materials (Framing Supplies, Roofing Supplies, Mechanical Fasteners, Electrical Supplies, Plumbing Supplies, Paint, Masonry Supplies, Sealing & Insulation Materials)

## Accommodations

*Special Education:* The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

*Students with 504 Plans:* Students will be accommodated based on specific accommodations listed in the 504 Plan.

*English Language Learners:* Students will be accommodated based on individual need and in consultation with the ELL teacher.

*Students at Risk of School Failure:* Students will be accommodated based on individual need and provided various structural supports through their school.

*Gifted and Talented Students:* Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.