

Course: *Construction, Building, Contracting*
Unit #3: *Sub Contracting*

Year of Implementation: 2023-2024

Curriculum Team Members *Dan DiNatale* ddinatale@lrhsd.org; *Mike Robinson* mrobinson@lrhsd.org; *Adam Parker* aparker@lrhsd.org

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.3 Comply with federal, state and local regulations to ensure worker safety and health and environmental work practices.

- 9.3.MN.4 Describe career opportunities and means to achieve those opportunities in each of the Manufacturing Career Pathways.

- 9.3.MN-HSE.1 Demonstrate the safe use of manufacturing equipment.

- 9.3.12.AC.2 Use architecture and construction skills to create and manage a project.

- 9.3.12.AC-CST.1 Describe contractual relationships between all parties involved in the building process.

- 9.3.12.AC-CST.8 Demonstrate the construction crafts required for each phase of a construction project.

- 9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals.

- 9.3.12.AC-DES.2 Use effective communication skills and strategies (listening, speaking, reading, writing and graphic communications) to work with clients and colleagues.

- **English Companion Standards**

- **Grade 9-10 Companion Standards:**

- RST.9-10.5. Analyze the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).

- 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.
- **Interdisciplinary Content Standards**
 - RI.9-10.7. Analyze various perspectives as presented in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.
 - NJSLA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content
- **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 (NJSLs) 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 the appropriate tools and/or machines to complete various tasks involved in subcontracting trades.

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

- evaluate careers using critical thinking and problem-solving skills to respond to changing societal and economic conditions
- 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

there are various specialities that exist within construction.

EU 2

there are overlapping skills but specific tools for each trade.

EU 3

communication between all parties is critical to success in a building project.

Essential Questions

EU 1

- Why are sub contractors needed?
- How are the responsibilities of a rough carpenter different from those of an electrician, plumber, finishing carpenter, etc?
- Is it important to have a lead manager in charge of all sub contracting groups?

EU 2

- What similarities and differences exist between various trades?
- Why isn't there a standard set of tools for all sub contracting jobs?
- Why is selecting the correct tool for the job such an important skill?

EU 3

- What is the best way to communicate goals to all party members?
- Why can't all sub contractors work on site at the same time?
- Should certain operations be done prior to others?

Knowledge

Students will know . . .

EU 1

- the different subcontracting specializations including but not limited to, framing, rough carpentry, finish carpentry, plumbing, electrical, sheet rocking, taping, roofing, window and door installation, tiling. 9.3.12.AC-CST.1
- what tools and training are involved in different specializations. 9.3.12.AC-CST.9
- the career paths that stem from different specializations. 9.3.MN.4

EU 2

- the kind of tools needed to complete different tasks. 9.3.12.AC-CST.9
- the role of different tradesmen. 9.3.12.AC-CST.1
- there are some differences but many similarities between trades. 9.3.12.AC-CST.1

EU3

- that communication is key when working on multipart projects. 9.3.12.AC-DES.2
- that being able to work with a team is essential to success. 9.3.12.AC-DES.2

Skills

Students will be able to . . .

EU 1

- describe job responsibilities of subcontractors. 9.3.12.AC-CST.1
- demonstrate using job specific tools. 9.3.12.AC-CST.9
- explain different specializations and the pro's and con's of following that career path. 9.3.MN.4

EU2

- demonstrate the proper use of the various tools needed for specific sub contraction jobs. 9.3.12.AC-CST.9
- explain how different trades are different, but relate to each other.9.3.12.AC-CST.1
- transfer skills from one specialization to another. 9.3.12.AC-CST.1

EU3

- explain why poor communication will result in mistakes. 9.3.12.AC-DES.2
- cooperate to achieve a common goal. 9.3.12.AC-DES.2
- explain and understand the relationship between order of operations and communication between contractors 9.3.12.AC-DES.2

--	--

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 subcontracting specializations including but not limited to framing, rough carpentry, finish carpentry, plumbing, electrical, sheet rocking, taping, roofing(A EU1,2)
- Demonstrations with job specific tools and tasks including but not limited to wall framing, window/door installation, trim work, basic plumbing systems, wiring and electrical installation, tile installation, hanging and taping sheetrock, installing roof shingles . (A,M, EU2)
- Student note taking to describe subcontracting tasks(A, EU1,2)
- Practice new skill sets in specific subcontracting categories including but not limited to framing, rough carpentry, finish carpentry, plumbing, electrical, sheet rocking, taping, roofing .(M, EU1,2)
- Demonstrate proper usage of job specific tools including but not limited to rough carpentry tools, finish carpentry tools, basic plumbing systems, wiring and electrical installation tools, tile installation wet saws and chisels, hanging and taping sheetrock, installing roof shingles(M,T EU1,2)

- Student presentations describing different subcontracting jobs(M,T, EU1,2)
- Student journaling (M,T EU1,2)

Pacing Guide

Unit #	Title of Unit	Approximate # of teaching days
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.