

Grade: 11-12
 Course: Construction Trades
 Year: 2020-2021



Suggested Pacing	Content Standards What must students know and be able to do?	Learning and Performance Expectations	Assessment of Learning Options How will we know if they learned this skill?	Learning Resources Options What will we do if they didn't, and what if they did?
1st Quarter, year 1	<p>Outcome 2.2 Personal Safety</p> <p>2.2.1. Interpret personal safety rights according to the employee Right-to-Know plan.</p> <p>2.2.2. Describe how working under the influence (e.g., drugs, alcohol and stimulants/caffeine) increases the risk of accident, lowers productivity, raises insurance costs, and reduces profits.</p> <p>2.2.3. Select, use, store, maintain and dispose of personal protective equipment (PPE) appropriate to job tasks, conditions and materials.</p> <p>2.2.4. Identify workplace risk factors associated with lifting, operating and moving heavy objects and establish an ergonomics process.</p> <p>2.2.5. Identify, inspect and use safety equipment appropriate for the task.</p> <p>2.2.7. Identify and describe hazards associated with using electronic devices on the job</p>	<p>Strand 2 Safety, Tools, and Equipment Learners apply principles of protection, prevent and mitigation to create and maintain safe working conditions at construction sites. Knowledge and skills may be applied in all aspects of personal site safety to meet all applicable standards.</p>	<p>Proper use of Personal Protective Equipment (further known as PPE)</p> <p>Proper Ergonomic techniques while lifting materials</p>	<p>NCCER Core Curriculum, NCCER Carpentry Level 1, Career Connections-Carpenters International Texts, Videos, online resources Hands on practices in Lab Setting</p>

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	<p>site. 2.2.8. Identify and describe hazards associated with improper clothing and poor hygiene. 2.2.9. Describe trenching and excavation hazards (e.g. soil types, cave in, utilities, underground obstacles). 2.2.10. Describe the process for identifying and locating existing site utilities. OSHA 10 Hour Certification</p>			
	<p>Outcome 3.5. Floor Framing 3.5.1. Identify, describe, and assemble materials for floor framing. 3.5.2. Construct and install sills and sill sealer. 3.5.3. Erect girders, beams and columns. 3.5.4. Lay out, cut and install floor joists. 3.5.5. Frame floor openings. 3.5.6. Install bridging (e.g., wood, metal). 3.5.7. Install subflooring using adhesives and fasteners.</p> <p>Employability Skills Develop career awareness and employability skills(e.g., face-to-</p>	<p>Strand 3. Structural Construction Learners apply principles of architectural engineering to erect residential, commercial and industrial buildings. Knowledge and skills may be applied in constructing footings and foundations; framing floors, walls, ceilings, roofs and stairs; completing exterior and interior finishes; and repairing, restoring or remodeling existing structures.</p>	<p>Correct layout Proper nailing techniques Proper Installation of required materials</p>	

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	<p>face, online) needed for gaining and maintaining employment in diverse business settings.</p> <p>1.1.1. Identify the knowledge, skills, and abilities necessary to succeed in careers.</p> <p>1.1.2. Identify the scope of career opportunities and the requirements for education, training, certification, licensure, and experience.</p> <p>1.1.3. Develop a career plan that reflects career interests, pathways, and secondary and postsecondary options.</p> <p>1.1.4. Describe the role and function of professional organizations, industry associations, and organized labor and use networking techniques to develop and maintain professional relationships.</p> <p>1.1.5. Develop strategies for self-promotion in the hiring process (e.g., filling out job applications, resumé writing, interviewing skills, portfolio development).</p> <p>1.1.6. Explain the importance of work ethic, accountability, and responsibility and demonstrate associated behaviors in fulfilling personal, community, and workplace roles.</p>			
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	<p>1.1.7. Apply problem-solving and critical-thinking skills to work-related issues when making decisions and formulating solutions.</p> <p>1.1.8. Identify the correlation between emotions, behavior, and appearance and manage those to establish and maintain professionalism.</p> <p>1.1.9. Give and receive constructive feedback to improve work habits.</p> <p>1.1.10. Adapt personal coping skills to adjust to taxing workplace demands.</p> <p>1.1.11. Recognize different cultural beliefs and practices in the workplace and demonstrate respect for them.</p> <p>1.1.12. Identify healthy lifestyle</p>			
<p>2nd Quarter Year 1</p>	<p>Outcome 3.6. Wall Framing Construct wall and ceiling framing.</p> <p>3.6.1 Identify platform and balloon framing.</p> <p>3.6.2. Lay out walls and rough openings.</p> <p>3.6.3. Compare and contrast metal and wood framing.</p> <p>3.6.4. Locate partitions, determine stud layout and strike</p>	<p>Strand 3. Structural Construction Learners apply principles of architectural engineering to erect residential, commercial and industrial buildings. Knowledge and skills may be applied in constructing footings and foundations; framing floors, walls, ceilings, roofs and stairs; completing exterior and interior finishes; and repairing, restoring or remodeling existing structures.</p>	<p>Correct layout Proper nailing techniques Proper Installation of required materials</p> <p>Proper use of Personal Protective Equipment (further known as PPE) Proper Ergonomic techniques while lifting materials</p>	<p>NCCER Core Curriculum, NCCER Carpentry Level 1, Career Connections-Carpenters International Texts, Videos, online resources Hands on practices in Lab Setting</p>

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	<p>wall lines. 3.6.5. Describe wall framing techniques used in masonry construction. 3.6.6. Cut and assemble wood and metal wall framing components (e.g., corner posts, T-posts, door openings, window openings, headers, cripples, king studs, trimmers, common studs, blocking). 3.6.7. Erect and plumb partitions and walls with top and bottom plates. 3.6.8. Brace exterior walls and install wind bracing. 3.6.9. Install exterior wall sheathing and house wrap. 3.6.10. Lay out, cut, and install ceiling joists and bracing</p>			
<p>3rd Quarter Year 1</p>	<p>Outcome 3.7. Roof Framing and Finishing Construct and finish roof. (Introduced third quarter and continued into fourth quarter)</p> <p>3.7.1. Compare roof types and materials. 3.7.2. Identify, describe and assemble materials for roof framing. 3.7.3. Lay out, cut and install</p>	<p>Strand 3. Structural Construction Learners apply principles of architectural engineering to erect residential, commercial and industrial buildings. Knowledge and skills may be applied in constructing footings and foundations; framing floors, walls, ceilings, roofs and stairs; completing exterior and interior finishes; and repairing, restoring or remodeling existing structures.</p>	<p>Proper use of Personal Protective Equipment (further known as PPE) Proper Ergonomic techniques while lifting materials</p> <p>Correct layout Proper nailing techniques Proper Installation of required materials</p>	<p>NCCER Core Curriculum, NCCER Carpentry Level 1, Career Connections-Carpenters International Texts, Videos, online resources Hands on practices in Lab Setting</p>

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	<p>ridge boards and common rafters.</p> <p>3.7.4. Lay out, cut and install hip rafters and install valley rafters and jack rafters.</p> <p>3.7.5. Lay out, cut and install gable-end studs and lookouts.</p> <p>3.7.6. Frame roof openings, dormers and chimney saddles.</p> <p>3.7.7. Install roof sheathing.</p> <p>3.7.8. Install prefabricated roof trusses with required hardware.</p> <p>3.7.9. Install drip edges, eaves flashing and roof vents.</p> <p>3.7.10. Install underlayment (ice and water barriers) and shingles.</p> <p>3.7.11. Lay out and install shingles and other roof finishes (e.g., fiberglass, asphalt, wood, valley material, felt paper, starter strip, hip and ridge caps).</p> <p>Outcome 3.8. Exterior Finish Work</p> <p>3.8.1. Compare types and characteristics of doors and windows.</p> <p>3.8.2. Identify, describe, and assemble materials for exterior finishing.</p> <p>3.8.3. Install exterior door and window units and hardware.</p> <p>3.8.4. Install weather stripping</p>			
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	<p>and apply caulking and sealant. 3.8.5. Install fascia and soffits with backing. 3.8.6. Cut and install molding and frieze board. 3.8.7. Case exterior openings. 3.8.8. Install exterior siding, covering, or finishes. 3.8.9. Install exterior trim accessories (e.g., gutters, downspouts, louvers, shutters, posts, railings, decorative moldings). 3.8.10. Install draft stopping.</p> <p>Outcome 3.9. Stairs 3.9.1. Describe stairway types and their components. 3.9.2. Calculate rise and run and design stairway risers, treads, carriage, stringers and clearances. 3.9.3. Lay out, cut, and install stair components. 3.9.4. Install stair finish trim components (e.g., skirt boards, handrails, balusters, newels, volutes, balustrade systems). 3.9.5. Install prefabricated stairs and drop-down stair units (e.g., attic stairs).</p>			
4th Quarter	3.10.1. Describe the different	Strand 3. Structural Construction	Proper use of Personal	NCCER Core

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<p>Year 1</p>	<p>types and characteristics of drywall and finishing materials. 2 3.10.2. Lay out the drywall installation and nail or screw pattern and install drywall and corner accessories. 3.10.3. Describe the effects insulation, vapor barriers and ventilation can have on controlling moisture. 3.10.4. Install insulation and vapor barriers for wall and ceiling finishes. 3.10.5. Install drywall board. 3.10.6. Finish drywall board. 23.10.7. Lay out and install alternative methods of ceiling (e.g. acoustic, suspended). 3.10.8. Prepare subfloor, install building paper and cut and install underlayment. 3.10.9. Lay out and install finished flooring (e.g., vinyl, carpet, wood, ceramic). 3.10.10. Install door units (e.g., prehung, double hung, folding, sliding) and door hardware. 3.10.11. Install interior door and window trim (e.g., stools, sills, jamb extensions, casing, mullions, aprons). 3.10.12. Apply finish coatings (e.g., paint, stains, varnishes, texturing, wallpaper).</p>	<p>Learners apply principles of architectural engineering to erect residential, commercial and industrial buildings. Knowledge and skills may be applied in constructing footings and foundations; framing floors, walls, ceilings, roofs and stairs; completing exterior and interior finishes; and repairing, restoring or remodeling existing structures.</p>	<p>Protective Equipment (further known as PPE) Proper Ergonomic techniques while lifting materials</p> <p>Correct layout Proper nailing techniques Proper Installation of required materials</p>	<p>Curriculum, NCCER Carpentry Level 1, Career Connections-Carpenters International Texts, Videos, online resources Hands on practices in Lab Setting</p>

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	<p>OSHA 10 Hour Certification</p> <p>Hands-on experience in the field, daily, to practice the skills acquired in year one programming.</p>			
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