

Standards Correlations

Carpentry II (8602)

| Task | SOL Correlations |
|---|---|
| Demonstrating Personal Qualities and Abilities | |
| Demonstrate creativity and innovation. | English: 6.1, 6.3, 6.4, 6.6, 6.7, 6.9, 7.1, 7.3, 7.4, 7.6, 7.7, 7.9, 8.1, 8.3, 8.4, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WG.4, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.10, 6.11, 6.12, 7.2, 7.3, 7.8, 7.9, 8.2, 8.4, 8.6, 8.7, 8.11, 8.12, 8.17, 8.18, A.9, AFDA.3, AFDA.4, AFDA.5, AFDA.6, AFDA.7, AFDA.8, AII.9, COM.1, COM.3, COM.4, COM.5, COM.8, DM.7, DM.1*, DM.10, DM.2*, DM.3*, PS.3*, PS.4*, PS.7*, PS.9*, PS.10* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1 |
| Demonstrate critical thinking and problem solving. | English: 6.1, 6.3, 6.4, 6.5, 6.6, 6.7, 6.9, 7.1, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9, 8.1, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WG.4, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.10, 6.11, 7.2, 7.3, 7.8, 7.12, 7.13, 8.2, 8.4, 8.8, 8.9, 8.10, 8.11, A.8, A.9, G.1, G.13, G.14, AFDA.3, AFDA.5, AFDA.8, AII.9, AII.10, AII.11, COM.1, COM.3, COM.4, COM.5, COM.8, DM.4, DM.7, DM.1*, DM.2*, DM.3*, DM.9*, PS.9*, PS.10* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1 |
| Demonstrate initiative and self-direction. | English: 6.1, 6.4, 6.6, 6.7, 6.9, 7.1, 7.4, 7.6, 7.7, 7.9, 8.1, 8.4, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 |

| Task | SOL Correlations |
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| | History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrate integrity. | English: 6.1, 7.1, 8.1, 9.1, 9.5, 10.1, 10.5, 11.1, 11.5, 12.1, 12.5 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrate work ethic. | English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: CH.1 |
| Demonstrating Interpersonal Skills | |
| Demonstrate conflict-resolution skills. | English: 6.1, 6.2, 6.4, 6.6, 6.7, 6.9, 7.1, 7.2, 7.4, 7.6, 7.7, 7.9, 8.1, 8.2, 8.4, 8.6, 8.7, 8.9, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, VUS.1 |
| Demonstrate listening and speaking skills. | English: 6.1, 6.2, 6.4, 6.6, 7.1, 7.2, 7.4, 7.6, 8.1, 8.2, 8.4, 8.6, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrate respect for diversity. | English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, USII.9, VUS.1, VUS.13, WG.1, WHI.1, WHII.1 |
| Demonstrate customer service skills. | English: 6.1, 6.4, 6.7, 7.1, 7.4, 7.7, 8.1, 8.4, 8.7, 9.1, 9.5, 9.6, 10.1, 10.5, 10.6, 11.1, 11.5, 11.6, 12.1, 12.5, 12.6 History and Social Science: CE.1, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Collaborate with team members | English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrating Professional Competencies | |
| Demonstrate big-picture thinking. | English: 6.1, 6.4, 7.1, 7.4, 8.1, 8.4, 9.1, 9.5, 10.1, 10.5, 11.1, 11.5, 12.1, 12.5 |

| Task | SOL Correlations |
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| | History and Social Science: CE.1, CE.4, CE.12, GOVT.1, GOVT.15, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrate career- and life-management skills. | English: 6.1, 6.7, 7.1, 7.7, 8.1, 8.7, 9.1, 9.6, 10.1, 10.6, 11.1, 11.6, 12.1, 12.6 History and Social Science: CE.1, CE.4, CE.12, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 8.4 |
| Demonstrate continuous learning and adaptability. | English: 6.1, 6.4, 6.7, 6.9, 7.1, 7.4, 7.7, 7.9, 8.1, 8.4, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.3, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: BIO.1, CH.1, LS.1, PH.1, PH.4, PS.1 |
| Manage time and resources. | English: 6.1, 6.2, 6.4, 6.7, 6.9, 7.1, 7.2, 7.4, 7.7, 7.9, 8.1, 8.2, 8.4, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.2, 11.5, 11.6, 11.8, 12.2, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.10, 6.11, 6.12, 7.2, 7.3, 7.8, 7.9, 7.10, 7.11, 7.12, 7.13, 8.4, 8.11, 8.12, 8.13, 8.14, 8.17, 8.18, A.4, A.5, A.8, A.9, AFDA.3, AFDA.4, AFDA.5, AFDA.6, AFDA.7, AFDA.8, COM.1, COM.3, COM.5, COM.8 |
| Demonstrate information-literacy skills. | English: 6.1, 6.2, 6.4, 6.6, 6.7, 6.9, 7.1, 7.2, 7.3, 7.4, 7.6, 7.7, 7.9, 8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 8.9, 9.2, 9.5, 9.6, 9.8, 10.2, 10.5, 10.6, 10.8, 11.2, 11.5, 11.6, 11.8, 12.2, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.10, 6.11, 7.8, 7.9, 8.11, 8.12, A.8, A.9, AFDA.3, AFDA.4, AFDA.6, AFDA.7, AFDA.8, DM.8, PS.1*, PS.2*, PS.3*, PS.4*, PS.7*, PS.8*, PS.9*, PS.10* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PH.1, PS.1 |
| Demonstrate an understanding of information security. | English: 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 7.1, 7.2, 7.3, 7.4, 7.6, 7.7, 7.8, 7.9, 8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 8.8, 8.9, 9.1, 9.2, 9.5, 9.6, 9.8, 10.1, 10.2, 10.5, 10.6, 10.8, 11.1, 11.2, 11.5, 11.6, 11.8, 12.1, 12.2, 12.5, 12.6, 12.8 |

| Task | SOL Correlations |
|---|---|
| | History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: COM.10 |
| Maintain working knowledge of current information-technology (IT) systems. | English: 6.1, 6.3, 6.4, 6.6, 6.9, 7.1, 7.3, 7.4, 7.6, 7.9, 8.1, 8.3, 8.4, 8.6, 8.9 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 7.8, COM.1, COM.2, COM.7, COM.9, COM.10, COM.11, COM.16, COM.18, PS.17 Science: BIO.1, CH.1, ES.1, PH.1 |
| Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. | History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.10, 6.11, 7.9, 8.4, A.7, A.8, A.9, AFDA.1, AFDA.3, AFDA.5, AII.4, AII.7, AII.9, COM.1, COM.7, COM.10, COM.11, COM.12, COM.16 Science: CH.1, ES.1, LS.1, PH.1, PS.1 |
| Apply mathematical skills to job-specific tasks. | English: 6.4, 6.6, 6.7, 7.4, 7.6, 7.7, 8.4, 8.6, 8.7, 9.5, 9.6, 10.5, 10.6, 11.5, 11.6, 12.5, 12.6 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.5, 6.6, 6.12, 6.13, 6.14, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.8, 7.9, 7.11, 7.12, 7.13, 8.4, 8.5, 8.6, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, A.1, A.3, A.4, A.5, A.7, A.8, A.9, AFDA.1, AFDA.3, AFDA.5, AFDA.8, AII.3, AII.7, AII.9, AII.10, COM.1, COM.7 Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PH.1, PS.1 |
| Demonstrate professionalism. | English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |
| Demonstrate reading and writing skills. | English: 6.1, 6.6, 6.7, 7.1, 7.6, 7.7, 8.1, 8.6, 8.7, 9.1, 9.5, 9.6, 9.7, 10.1, 10.5, 10.6, 10.7, 11.1, 11.5, 11.6, 11.7, 12.1, 12.5, 12.6, 12.7 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 |

| Task | SOL Correlations |
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| | Science: 6.1, PH.1, PS.1 |
| Demonstrate workplace safety. | English: 6.4, 7.4, 8.4, 9.5, 10.5, 11.5, 12.5 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: CH.1 |
| Examining All Aspects of an Industry | |
| Examine aspects of planning within an industry/organization. | History and Social Science: GOVT.16 |
| Examine aspects of management within an industry/organization. | |
| Examine aspects of financial responsibility within an industry/organization. | |
| Examine technical and production skills required of workers within an industry/organization. | |
| Examine principles of technology that underlie an industry/organization. | |
| Examine labor issues related to an industry/organization. | History and Social Science: GOVT.16 |
| Examine community issues related to an industry/organization. | History and Social Science: GOVT.16 |
| Examine health, safety, and environmental issues related to an industry/organization. | History and Social Science: GOVT.16 |
| Addressing Elements of Student Life | |
| Identify the purposes and goals of the student organization. | |
| Explain the benefits and responsibilities of | |

| Task | SOL Correlations |
|---|--|
| membership in the student organization as a student and in professional/civic organizations as an adult. | |
| Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects. | |
| Identify Internet safety issues and procedures for complying with acceptable use standards. | |
| Exploring Work-Based Learning | |
| Identify the types of work-based learning (WBL) opportunities. | |
| Reflect on lessons learned during the WBL experience. | |
| Explore career opportunities related to the WBL experience. | |
| Participate in a WBL experience, when appropriate. | |
| Applying Basic Construction Safety Standards (Core Safety) | |
| Comply with federal, state, and local safety requirements. | English: 11.5, 11.8, 12.5, 12.8 History and Social Science: GOVT.7, GOVT.8, GOVT.14, GOVT.15, VUS.13, VUS.14 Science: CH.1 |
| Identify personal protective equipment (PPE) requirements. | |
| Maintain a safe working environment. | Science: CH.1 |

| Task | SOL Correlations |
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| Explain safe working practices around electrical hazards. | English: 11.5, 11.8, 12.5, 12.8 |
| Identify emergency first-aid procedures. | English: 11.5, 12.5 |
| Identify the types of fires and the methods used to extinguish them. | English: 11.5, 12.5 Science: CH.1 |
| Inspect course-specific hand and power tools to visually identify defects. | English: 11.5, 12.5 |
| Demonstrate lifting and carrying techniques. | |
| Demonstrate safe laddering techniques. | |
| Demonstrate safe scaffolding techniques. | |
| Report personal injuries and environmental and equipment safety violations to the appropriate authority. | English: 11.1, 11.2, 12.1 |
| Pass a safety exam for lab/site safety and the use of tools and equipment specific to the construction industry. | |
| Focusing on the Carpentry Profession | |
| Identify the responsibilities and personal characteristics of a professional carpenter. | English: 11.5, 12.5 |
| Research local and regional opportunities in the construction industry. | English: 11.8, 12.8 History and Social Science: GOVT.7, GOVT.8, GOVT.14, GOVT.15 |
| Describe the relationships among professional entities common to the construction industry. | English: 11.5, 12.5 |
| Communicate verbally and in writing, using construction terminology. | English: 11.1, 11.5, 11.7, 11.8, 12.1, 12.5, 12.7, 12.8 |

| Task | SOL Correlations |
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| Identify communication technology and hand signals common to the construction site. | |
| Measure materials, using a standard measuring device. | English: 11.5, 12.5 |
| Using Hand and Power Tools | |
| Identify hand tools and power tools in carpentry. | |
| Maintain hand and power tools. | English: 11.5, 12.5 |
| Describe the safe use of nail guns. | English: 11.5, 12.5 |
| Interpreting Blueprints | |
| Correlate information on blueprints. | English: 11.5, 12.5 |
| Interpret drawing dimensions. | English: 11.5, 12.5 |
| Describe the importance of the Virginia Unified Statewide Building Code (USBC), what it governs, and how to use it as a reference. | English: 11.5, 12.5 History and Social Science: GOVT.8, GOVT.14, GOVT.15 |
| Assembling and Fastening Components | |
| Identify nailing schedules and patterns for selected materials, according to local building codes. | English: 11.5, 12.5 |
| Estimating and Selecting Materials | |
| Determine materials from a blueprint. | |
| Estimate labor and material cost. | |
| Determine the use of materials. | English: 11.5, 12.5 |
| Building and Installing Foundations and Forms | |
| Set up a builder's level or a laser level. | |

| Task | SOL Correlations |
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| Establish elevation points from a benchmark. | |
| Install batter boards. | |
| Identify types of footings. | |
| Describe wall-framing techniques (e.g., block, poured) used in masonry construction. | |
| Describe the installation of window and door jambs in masonry openings. | English: 11.1, 11.5, 12.1, 12.5 |
| Describe form maintenance. | |
| Framing a Floor | |
| Install the sill plate. | |
| Install a solid or engineered wood beam/girder. | |
| Install the Lally column (i.e., basement pole). | |
| Assemble floor framing detail on the sill plate. | |
| Assemble floor joists. | |
| Frame the floor opening. | |
| Install floor joists. | |
| Install bridging and blocking. | |
| Install subfloor sheathing. | |
| Select subfloor framing fasteners and adhesives. | |
| Framing Walls | |
| Lay out the floor deck for walls. | |
| Lay out stud spacing on wall plates. | |
| Assemble wall framing members. | |

| Task | SOL Correlations |
|---|-------------------------|
| Frame the door opening. | |
| Frame the window opening. | |
| Install the double-top plate (i.e., cap plate). | |
| Install wall blocking (i.e., backing). | |
| Describe the procedures and requirements for installing fire stops. | |
| Install a corner brace. | |
| Install exterior wall sheathing. | |
| Raise a wall. | English: 11.5, 12.5 |
| Cut metal studs. | |
| Assemble wall sections, using alternative wall systems (e.g., metal studs). | |
| Framing a Ceiling | |
| Lay out ceiling framing detail on the top wall plate. | |
| Cut ceiling joists. | |
| Install the ceiling joists. | |
| Frame the ceiling opening. | |
| Install a strongback (i.e., stiffener or catwalk). | |
| Framing a Roof | |
| Identify types of roofs used in residential construction. | |
| Lay out roof framing detail on the double-top plate. | |
| Lay out the common, valley, hip, and | |

| Task | SOL Correlations |
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| jack/cripple rafters. | |
| Lay out a common rafter as a pattern. | |
| Reproduce common rafters from a pattern. | |
| Install the ridgeboard. | |
| Install common rafters. | |
| Frame a gable end. | |
| Install the collar ties (i.e., rafter ties). | |
| Install roof sheathing. | |
| Installing Trusses | |
| Lay out for a truss installation. | |
| Describe the safe setting and anchoring of trusses by hand or by crane. | |
| Describe bracing the roof assembly. | |
| Installing Roofing | |
| Install roof underlayment. | |
| Install asphalt roof shingles. | |
| Install the ridge cap. | |
| Identify attic area ventilators. | |
| Constructing and Installing Straight (i.e., Basic) Stairs | |
| Identify the types of stairways. | |
| Identify components of stairs. | |
| Calculate the rise and run for stairs. | History and Social Science: WHI.5, WHI.6 Mathematics: G.3 |

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|---|-------------------------|
| Lay out a straight-run stair stringer. | |
| Cut the stair components. | |
| Construct the unfinished stair unit. | |
| Installing Exterior Doors and Windows | |
| Prepare rough openings for door and window units. | |
| Identify types of exterior doors. | |
| Identify types of interior doors. | |
| Identify types of windows. | |
| Install new-construction windows. | |
| Installing Exterior Finishes | |
| Construct a box or rake cornice. | |
| Install a fascia. | |
| Install a soffit. | |
| Install a corner trim for siding. | |
| Install siding and accompanying accessories. | |