

Standards Correlations

Electricity III (8535)

Task	SOL Correlations	NCCER 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,	

Task	SOL Correlations	NCCER Correlations
	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 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	

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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 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	

Task	SOL Correlations	NCCER Correlations
	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 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	

Task	SOL Correlations	NCCER Correlations
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	

Task	SOL Correlations	NCCER Correlations
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 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	

Task	SOL Correlations	NCCER Correlations
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 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.		

Task	SOL Correlations	NCCER Correlations
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 legal requirements.	English: 12.5, 12.8 History and Social Sciences: Govt 7, 8, 9 Science: CH1	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety • 00106 Introduction to Basic Rigging
Maintain a safe working environment.	English: 12.5 Science: PH1	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Explain safe working practices around electrical hazards.	English: 12.3, 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety

Task	SOL Correlations	NCCER Correlations
Identify emergency first aid procedures.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety
Identify the types of fires and the methods used to extinguish them.	English: 12.5 Science: CH.1	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 0010 Basic Safety
Identify personal protective equipment (PPE) requirements.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Inspect course-specific hand and power tools to visually identify defects.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety • 00103 Introduction to Hand Tools

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 00104 Introduction to Power Tools
Demonstrate lifting and carrying techniques.		<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p> <ul style="list-style-type: none"> • 00101 Basic Safety <p>NCCER Electrical Level 1, 2020</p> <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Demonstrate laddering techniques.		<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p> <ul style="list-style-type: none"> • 00101 Basic Safety <p>NCCER Electrical Level 1, 2020</p> <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Demonstrate scaffolding techniques.		<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p>

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 00101 Basic Safety <p>NCCER Electrical Level 1, 2020</p> <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Demonstrate lockout/tagout procedures.	English: 12.5	<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p> <ul style="list-style-type: none"> • 00101 Basic Safety <p>NCCER Electrical Level 1, 2020</p> <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Report injuries.	English: 12.6, 12.7	<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p> <ul style="list-style-type: none"> • 00101 Basic Safety
Report personal, environmental, and equipment safety violations to the appropriate authority.	<p>English: 12.1 12.5, 12.6, 12.7</p> <p>History and Social Sciences: Govt 7, 8, 9</p>	<p>NCCER Core Curriculum: Introduction to Basic Construction, 2021</p> <ul style="list-style-type: none"> • 00101 Basic Safety

Task	SOL Correlations	NCCER Correlations
		NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Earn the OSHA 10 card.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Pass safety exam.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00101 Basic Safety NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians
Using Tools and Materials		

Task	SOL Correlations	NCCER Correlations
Use hand tools.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00103 Introduction to Hand Tools
Use power tools.	English: 12.5	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00104 Introduction to Power Tools
Use meters to take readings.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26112-20 Electrical Test Equipment
Identify commonly used materials by name and by regional variance of terminology.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26109-20 Conductors and Cables • 26108-20 Wireways, Raceways, Fittings
Solving Mathematical Problems Related to Electricity		

Task	SOL Correlations	NCCER Correlations
Convert numbers to scientific notation.	English: 12.5 Mathematics: COM.15 Science: CH1	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00102 Introduction to Construction Math
Use calculators to solve electrical problems, including load calculations and service calculations.	English: 12.5 Mathematics: T.6 Science: PH.1, PH.11	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00102 Introduction to Construction Math
Use calculators to solve conduit bending problems.	Mathematics: MA.8	NCCER Core Curriculum: Introduction to Basic Construction, 2021 <ul style="list-style-type: none"> • 00102 Introduction to Construction Math NCCER Electrical Level 1, 2020 26108-20 Wireways, Raceways, and Fittings
Installing Conductors		
Explain the steps for pulling cable into a raceway in a commercial or industrial setting.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26106-20 Device Boxes

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables
Install conductors.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26108-20 Wireways, Raceways, and Fittings • 26107-20 Hand Bending • 26109-20 Conductors and Cables • 26111-20 Residential Wiring
Identify the color codes for phasing wires.	English: 12.5	
Identify material associated with conduits and raceways.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26106-20 Device Boxes • 26108-20 Wireways, Raceways, and Fittings • 26107-20 Hand Bending • 26109-20 Conductors and Cables • 26111-20 Residential Wiring •
Examining Lighting, Communication, and Power Systems		
Explain functions, operation, and characteristics of various lighting systems.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26111-20 Residential Wiring

Task	SOL Correlations	NCCER Correlations
Design lighting distribution and layout of luminaires.	English: 12.1, 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26110-20 Basic Electrical Construction Design • 26111-20 Residential Wiring
Explain functions, operation, and characteristics of various communication systems.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
Design communication distribution and layout of outlets.	English: 12.1, 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26110-20 Basic Electrical Construction Documents • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
Install communication devices.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26108-20 Wireways, Raceways, and Fittings

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26109-20 Conductors and Cables • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
Design power distribution and layout outlets.	English: 12.1, 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26110-20 Basic Electrical Construction Documents • 26106-20 Device Boxes • 26108-20 Wireways, Raceways, and Fittings
Interpreting Prints and Specifications		
Draw a residential electrical plan.	English: 12.1, 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26104-20 Electrical Theory • 26110-20 Basic Electrical Construction Documents
Read electrical drawings, including schematics and specifications.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26104-20 Electrical Theory • 26110-20 Basic Electrical Construction Documents
Draw a control ladder diagram.		
Installing Service Equipment, Generators, and Power Supplies		
Install service entrance equipment.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26105-20 Introduction to the National Electrical Code

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring
Identify types and configurations of uninterruptible power supplies (UPSs).	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26105-20 Introduction to the National Electrical Code • 26206-20 Device Boxes • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring
Installing and Maintaining Motors and Drives, Motor Controllers, and Programmable Logic Controllers (PLC)		
Identify function, operation, and characteristics of various motors.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26104-20 Electrical Theory • 26105-20 Introduction to the National Electrical Code • 26106-20 Device Boxes

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26107-20 Hand Bending • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
<p>Demonstrate techniques for various motor installations.</p>	<p>English: 12.5</p>	<p>NCCER Electrical Level 1, 2020</p> <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26104-20 Electrical Theory • 26105-20 Introduction to the National Electrical Code • 26106-20 Device Boxes • 26107-20 Hand Bending • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26112-20 Electrical Test Equipment
Identify functions, operation, and characteristics of motor controllers, circuits, process control systems, and devices.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26104-20 Electrical Theory • 26105-20 Introduction to the National Electrical Code • 26106-20 Device Boxes • 26107-20 Hand Bending • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
Wire a control circuit, given a ladder diagram.		
Wire a multiple start/stop push-button station.		
Wire a control relay.		
Wire a two-wire motor control circuit.		

Task	SOL Correlations	NCCER Correlations
Exploring Transformers		
Identify function, operation, and characteristics of transformers.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26104-20 Electrical Theory • 26105-20 Introduction to the National Electrical Code • 26106-20 Device Boxes • 26107-20 Hand Bending • 26108-20 Wireways, Raceways, and Fittings • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment
Describe the components of electrical distribution systems.	English: 12.5	NCCER Electrical Level 1, 2020 <ul style="list-style-type: none"> • 26102-20 Safety for Electricians • 26104-20 Electrical Theory • 26105-20 Introduction to the National Electrical Code • 26106-20 Device Boxes • 26107-20 Hand Bending • 26108-20 Wireways, Raceways, and Fittings

Task	SOL Correlations	NCCER Correlations
		<ul style="list-style-type: none"> • 26109-20 Conductors and Cables • 26110-20 Basic Electrical Construction Documents • 26111-20 Residential Wiring • 26112-20 Electrical Test Equipment