

# Standards Correlations

## Agricultural Power Systems, Advanced (8020)

Task	SOL Correlations
<b>Demonstrating Personal Qualities and Abilities</b>	
Demonstrate creativity and innovation.	<p>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</p> <p>History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WG.4, WHI.1, WHII.1</p> <p>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*</p> <p>Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1</p>
Demonstrate critical thinking and problem solving.	<p>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</p> <p>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</p> <p>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*</p> <p>Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1</p>
Demonstrate initiative and self-direction.	<p>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</p> <p>History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1</p>
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

Task	SOL Correlations
	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
<b>Demonstrating Interpersonal Skills</b>	
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
<b>Demonstrating Professional Competencies</b>	
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	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

<b>Task</b>	<b>SOL Correlations</b>
skills.	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 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

<b>Task</b>	<b>SOL Correlations</b>
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 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
<b>Examining All Aspects of an Industry</b>	

<b>Task</b>	<b>SOL Correlations</b>
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
<b>Addressing Elements of Student Life</b>	

<b>Task</b>	<b>SOL Correlations</b>
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.	
<b>Exploring Work-Based Learning</b>	
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.	

<b>Task</b>	<b>SOL Correlations</b>
<b>Exploring Leadership Opportunities through FFA</b>	
Identify the role of supervised agricultural experiences (SAEs) in agricultural education.	English: 9.3, 9.5, 10.3, 10.5
Participate in an SAE.	English: 9.5, 9.8, 10.5, 10.8
Identify the benefits and responsibilities of FFA membership.	English: 9.5, 9.6, 9.7, 9.8, 10.5, 10.6, 10.7, 10.8
Describe leadership characteristics and opportunities as they relate to agriculture and FFA.	English: 9.5, 10.5 History and Social Science: VUS.8, VUS.9, VUS.10, VUS.11, WHIL.8, WHIL.10, WHIL.11
Apply for an FFA degree and/or an agricultural proficiency award.	English: 9.5, 10.5
<b>Applying Safety Practices in the Agricultural Mechanics Lab</b>	
Demonstrate safe practices in the agricultural mechanics lab.	English: 10.5, 11.5, 12.5 History and Social Sciences: WHIL.8; VUS.8; Govt 7, 8, 9 Science: BIO.1, CH.1
Identify marked safety areas and posted evacuation routes.	History and Social Sciences: WHIL.8; VUS.8; Govt 7, 8, 9
Explain the use of eye wash stations.	English: 10.5, 11.5, 12.5 History and Social Sciences: WHIL.8; VUS.8; Govt 7, 8, 9 Science: CH.1

<b>Task</b>	<b>SOL Correlations</b>
Demonstrate knowledge of SDS.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9  Science: CH.1
Use protective clothing and equipment.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9  Science: CH.1
Demonstrate the use, storage, and disposal of chemicals.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9  Science: CH.1
Explain the use of fire protection equipment.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9  Science: CH.1
Demonstrate the safe use of standard and metric hand tools.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9
Demonstrate the safe use of power tools and equipment.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9
Use standard and metric precision measuring tools.	English: 10.5, 11.5, 12.5



<b>Task</b>	<b>SOL Correlations</b>
<b>Performing General Mechanical Maintenance</b>	
Identify lab and maintenance safety procedures and protocols.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9  Science: CH.1
Identify hazards associated with using and servicing farm machinery and equipment.	English: 10.3, 10.5, 11.3, 11.5, 12.3, 12.5
Demonstrate safe use of maintenance tools and equipment.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9
Maintain equipment.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing Hydraulic and Pneumatic Systems</b>	
Explain safety considerations regarding chemical exposure (e.g., to fuels, solvents, insecticides, herbicides, fungicides, fertilizers and veterinary chemicals) when working with farm equipment and machinery.	English: 10.5, 10.8, 11.5, 11.8, 12.5, 12.8  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9
Explain safety considerations when working with hydraulic and pneumatic systems.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9

<b>Task</b>	<b>SOL Correlations</b>
Explain the fundamental operating principles of hydraulic and pneumatic systems.	English: 10.5, 11.5, 12.5
Explain the operation of open and closed center hydraulic systems.	English: 10.5, 11.5, 12.5
Calculate hydraulic pressure and force, using Pascal's law.	Mathematics: AII.3
Explain the importance of hydraulic system service and maintenance.	English: 10.5, 11.5, 12.5
Use a flow meter and test gauge to measure the performance of a hydraulic system.	English: 10.5, 11.5, 12.5
Repair a hydraulic component.	English: 10.5, 11.5, 12.5
Repair a hydraulic-assist transmission.	English: 10.5, 11.5, 12.5
Repair hydrostatic drives.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing Electrical Systems</b>	
Explain safety considerations when working with electrical systems and in proximity to electricity.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9

<b>Task</b>	<b>SOL Correlations</b>
	Science: PH.11
Interpret electrical schematics.	Science: PH.11
Use electrical diagrams to locate components on equipment.	Science: PH.11
Test electrical components and devices.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Ignition Circuit</b>	
Explain the operation of the ignition circuit.	
Troubleshoot the ignition switch.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Starting Circuit</b>	
Explain the operation of the starting circuit.	
Troubleshoot the safety switch.	English: 10.5, 11.5, 12.5
Troubleshoot the starter solenoid.	English: 10.5, 11.5, 12.5
Troubleshoot glow plugs on diesel engines.	English: 10.5, 11.5, 12.5
Troubleshoot the starter.	
Replace defective parts of the starting circuit.	English: 10.5, 11.5, 12.5

<b>Task</b>	<b>SOL Correlations</b>
<b>Maintaining and Servicing the Charging Circuit</b>	
Explain the operation of the charging circuit.	
Test the charging circuit.	English: 10.5, 11.5, 12.5
Replace an amperage gauge.	English: 10.5, 11.5, 12.5
Check the armature and fields of charging circuits.	
<b>Maintaining and Servicing Fuel Systems</b>	
Explain the operation of the components of a fuel system.	
Explain the importance of proper fuel storage.	English: 10.5, 11.5, 12.5
Explain the operating principles and maintenance of carburetors.	
Repair various fuel systems.	English: 10.5, 11.5, 12.5
Explain the operating principles and maintenance of a high-pressure fuel injector.	English: 10.5, 11.5, 12.5
Service diesel fuel systems.	English: 10.5, 11.5, 12.5

<b>Task</b>	<b>SOL Correlations</b>
Service fuel tanks and lines.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Air Intake System</b>	
Explain the importance of servicing and maintaining air intake systems.	English: 10.5, 11.5, 12.5
Explain how air filtration systems operate.	
Service air cleaners (dry and oil bath).	English: 10.5, 11.5, 12.5
Inspect intake and induction systems.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Cooling System</b>	
Follow general safety precautions when maintaining cooling systems.	English: 10.5, 11.5, 12.5
Explain the operation of the cooling system.	
Check coolant levels.	English: 10.5, 11.5, 12.5
Test radiator coolant.	English: 10.5, 11.5, 12.5
Flush radiator.	English: 10.5, 11.5, 12.5

<b>Task</b>	<b>SOL Correlations</b>
Inspect cooling system components for wear.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Lubrication System</b>	
Follow safety procedures for servicing lubrication systems.	English: 10.5, 11.5, 12.5  History and Social Sciences: WHII.8; VUS.8; Govt 7, 8, 9
Explain the operation of lubrication systems.	
Check the engine crankcase oil level.	English: 10.5, 11.5, 12.5
Select appropriate lubricants based on quality and viscosity designations.	English: 10.5, 11.5, 12.5
Change lubricants and filters.	English: 10.5, 11.5, 12.5
Dispose of engine oils.	English: 10.5, 11.5, 12.5
<b>Testing, Servicing, and Repairing the Power Unit</b>	
Test the power unit.	English: 10.5, 11.5, 12.5
Service the power unit.	English: 10.5, 11.5, 12.5
Repair the power unit.	English: 10.5, 11.5, 12.5

<b>Task</b>	<b>SOL Correlations</b>
Test engine compression.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing the Powertrain</b>	
Explain the theory of powertrain systems.	English: 10.3, 10.5, 11.3, 11.5, 12.3, 12.5
Explain the operational theory of brakes (wet and dry), torsion dampers, and torque converters.	English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7
Explain the operational theory of a final drive system.	English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7
Troubleshoot various powertrain systems.	English: 10.5, 11.5, 12.5
Troubleshoot brakes (wet and dry), torsion dampers, and torque converters.	English: 10.5, 11.5, 12.5
Troubleshoot final drives and differential systems.	English: 10.5, 11.5, 12.5
Service power take-off drives.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing Differentials, Transmissions, and Axles</b>	
Follow safety procedures related to differentials, transmissions, and axles.	English: 10.5, 11.5, 12.5
Explain the operation of differentials, transmissions, and axles.	

<b>Task</b>	<b>SOL Correlations</b>
Check the transmission or differential lubricant levels on equipment.	English: 10.5, 11.5, 12.5
Check tire pressure, wear, and defects.	English: 10.5, 11.5, 12.5
Change the differential fluid(s).	English: 10.5, 11.5, 12.5
Pack wheel bearings.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing Storage Battery</b>	
Follow general safety when servicing batteries.	English: 10.5, 11.5, 12.5
Use jumper cables to jump-start or charge a battery.	English: 10.5, 11.5, 12.5
Service battery.	
<b>Performing Welding/Cutting Operations</b>	
Perform grinding operations with a pedestal/bench grinder and/or portable/hand-held disc/angle grinder.	English: 10.5, 11.5, 12.5
Perform welding operations.	English: 10.5, 11.5, 12.5
Cut metals.	English: 10.5, 11.5, 12.5
<b>Applying Protective Coatings</b>	
Prepare equipment for painting.	English: 10.5, 11.5, 12.5
Clean equipment with a steam cleaner and/or high-pressure washer.	English: 10.5, 11.5, 12.5
Apply protective coatings.	English: 10.5, 11.5, 12.5
<b>Performing Administrative and Customer Sales Duties</b>	



<b>Task</b>	<b>SOL Correlations</b>
Maintain current inventory, using an electronic inventory system.	English: 10.6, 11.6, 12.6 Mathematics: COM.1, COM.2, COM.5, COM.7, COM.10, COM.11
Place orders using available resources.	English: 10.6, 11.6, 12.6
Complete work orders, invoices, and requisitions for repairs.	English: 10.5, 10.6, 10.7, 11.5, 11.6, 11.7, 12.5, 12.6, 12.7
Maintain clean and orderly customer and parts areas.	English: 10.5, 11.5, 12.5
Explain repairs and expenses to customers using written estimates.	English: 10.1, 10.5, 11.1, 11.5, 12.1, 12.5
Complete an invoice.	English: 10.6, 11.6, 12.6
<b>Maintaining and Servicing Harvesting Machinery and Equipment</b>	
Explain the operating fundamentals of harvesting equipment.	
Perform diagnostic, maintenance, and repair procedures on harvesting equipment.	English: 10.5, 11.5, 12.5
Set up harvesting equipment prior to and during in-field use to optimize performance according to conditions.	English: 10.5, 11.5, 12.5
<b>Maintaining and Servicing Tillage and Seeding Application Machinery and Equipment</b>	
Explaining the fundamentals of machine operation, including tractor/implement compatibility.	English: 10.1, 11.1, 12.1

<b>Task</b>	<b>SOL Correlations</b>
Identify laws associated with tillage and seeding applications.	English: 10.5, 10.8, 11.5, 11.8, 12.5, 12.8
Set up tillage and seeding application equipment.	English: 10.5, 11.5, 12.5
Perform diagnostic, maintenance, and repair procedures on tillage equipment.	English: 10.5, 11.5, 12.5
Perform diagnostic, maintenance, and repair procedures on seeding equipment.	English: 10.5, 11.5, 12.5