

# Standards Correlations

## Fundamentals of Power Generation (FP8411)

Task	SOL Correlations
<b>Demonstrating Personal Qualities and Abilities</b>	
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 History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1,

Task	SOL Correlations
	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
<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,

Task	SOL Correlations
	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 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
	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 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

Task	SOL Correlations
	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>	
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>	
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	

Task	SOL Correlations
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>Describing Energy Types and Transformations</b>	
Describe forms of energy and their uses.	<p>English: 9.5, 10.5</p> <p>History and Social Science: WG.17, WHII.14</p> <p>Science: PH.7</p> <p>ITEEA National Standards:</p> <ol style="list-style-type: none"> <li>1. The Characteristics and Scope of Technology</li> <li>16. Energy and Power Technologies</li> <li>2. The Core Concepts of Technology</li> </ol>

Task	SOL Correlations
Define <i>energy</i> .	<p>English: 9.3, 10.3</p> <p>Science: PH.5, PH.6, PH.7</p> <p>ITEEA National Standards:  1. The Characteristics and Scope of Technology  16. Energy and Power Technologies  2. The Core Concepts of Technology</p>
Identify units of measure.	<p>English: 9.5, 10.5</p> <p>Science: PH.11</p> <p>ITEEA National Standards:  16. Energy and Power Technologies</p>
Demonstrate energy transformation.	<p>English: 9.5, 10.5</p> <p>Science: PH.7</p> <p>ITEEA National Standards:  10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving  12. Use and Maintain Technological Products and Systems  16. Energy and Power Technologies</p>
Explain energy conversion.	<p>English: 9.5, 10.5</p> <p>Mathematics: A.1, A.4, A.7, AFDA.1, AFDA.3, AII.3, AII.6, AII.9, MA.2</p> <p>Science: PH.6, PH.7</p> <p>ITEEA National Standards:</p>

Task	SOL Correlations
	12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
<b>Exploring Sources of Energy</b>	
Identify sources of energy.	English: 9.5, 10.5  History and Social Science: WG.17, WHII.14  Science: PH.6, PH.7  ITEEA National Standards: 16. Energy and Power Technologies 2. The Core Concepts of Technology
Evaluate energy sources that are nonrenewable, renewable, and inexhaustible.	English: 9.3, 10.3  History and Social Science: WG.17, WHII.14  Science: ES.6  ITEEA National Standards: 16. Energy and Power Technologies 2. The Core Concepts of Technology 5. The Effects of Technology on the Environment
Diagram the life cycle of energy sources.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Analyze byproduct management associated with the use of each.	English: 9.5, 10.5  ITEEA National Standards:

Task	SOL Correlations
Compare the footprint of various energy sources.	16. Energy and Power Technologies  English: 9.5, 10.5  Mathematics: A.8, A.9, AFDA.3, AII.9, PS.1*, PS.2*, PS.3*, PS.4*, PS.7*  ITEEA National Standards: 16. Energy and Power Technologies
<b>Describing Electrical Theory</b>	
Explain electric charge.	English: 9.5, 10.5 Science: CH.2, PH.11  ITEEA National Standards: 16. Energy and Power Technologies
Describe electric current.	English: 9.5, 10.5  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 16. Energy and Power Technologies 2. The Core Concepts of Technology
Explain the difference between conductive and nonconductive material.	English: 9.5, 10.5  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving

Task	SOL Correlations
	12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies 2. The Core Concepts of Technology
Describe voltage.	English: 9.5, 10.5  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Describe electric resistance.	English: 9.5, 10.5  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies 2. The Core Concepts of Technology
Explain Ohm's law.	English: 9.5, 10.5  Mathematics: A.1, A.4, A.7, AFDA.1, AII.3, AII.6, AII.10  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and

Task	SOL Correlations
	Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Construct a series circuit.	Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies 2. The Core Concepts of Technology
Construct a parallel circuit.	Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies 2. The Core Concepts of Technology
Construct circuits that contain resistors.	Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Apply Ohm's law.	English: 9.5, 10.5, 11.5  Mathematics: A.1, A.4, A.7, AFDA.1, AII.3, AII.6, AII.10

Task	SOL Correlations
	Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
<b>Exploring Turbines</b>	
Exploring Turbines.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Diagram the major components of a gas turbine and explain its purpose.	English: 9.5, 10.5  History and Social Science: WG.17, WHII.14  ITEEA National Standards: 16. Energy and Power Technologies
Diagram the major components of a steam turbine and explain its purpose.	English: 9.5, 10.5  History and Social Science: WHII.8  ITEEA National Standards: 16. Energy and Power Technologies
Diagram the major components of a water turbine and explain its purpose.	English: 9.5, 10.5  History and Social Science: WHII.8  ITEEA National Standards:

Task	SOL Correlations
	16. Energy and Power Technologies
Diagram the major components of a wind turbine and explain its purpose.	English: 9.5, 10.5  History and Social Science: WG.17, WHII.14  ITEEA National Standards: 16. Energy and Power Technologies
Compare the characteristics of different types of turbines.	English: 9.5, 10.5  History and Social Science: WG.17, WHII.14  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Design a turbine model.	ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 16. Energy and Power Technologies 9. Engineering Design
<b>Exploring Generators</b>	
Explain Faraday’s law of induction.	English: 9.5, 10.5  Mathematics: A.1, A.4, A.7, T.1, T.6, AFDA.1, AII.3, AII.6, AII.10  ITEEA National Standards: 16. Energy and Power Technologies
Describe the fundamental operating principal	ITEEA National Standards:

Task	SOL Correlations
of a generator.	10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Diagram the major components of a generator.	ITEEA National Standards: 16. Energy and Power Technologies
Explain the difference between a generator and an alternator.	English: 9.3, 9.5, 10.3, 10.5  Science: PH.11  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Describe the electrical output of a simple generator and how the power produced can be conditioned.	English: 9.5, 10.5  ITEEA National Standards: 1. The Characteristics and Scope of Technology 16. Energy and Power Technologies
<b>Exploring Photovoltaics</b>	
Define <i>photovoltaics</i> (PV).	English: 9.3, 10.3  ITEEA National Standards: 16. Energy and Power Technologies
Investigate the workings of a solar panel.	English: 9.5, 10.5  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and

Task	SOL Correlations
	Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Compare PV and traditional power sources.	English: 9.5, 10.5  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies
Describe effects on solar performance.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Design a solar-powered model.	ITEEA National Standards: 16. Energy and Power Technologies 9. Engineering Design
<b>Exploring Environmental Effects in Energy and Power</b>	
Explore the effect of greenhouse gas emissions from energy production on the environment.	English: 9.3, 9.5, 10.3, 10.5  History and Social Science: WG.16, WG.17, WHII.14  Science: ES.11  ITEEA National Standards: 16. Energy and Power Technologies 5. The Effects of Technology on the Environment
Investigate the environmental effects of all energy sources.	English: 9.3, 9.5, 10.3, 10.5

Task	SOL Correlations
	History and Social Science: WG.17, WHII.14  ITEEA National Standards: 16. Energy and Power Technologies 5. The Effects of Technology on the Environment
Research mitigation techniques for reducing environmental effects from energy sources.	English: 9.8, 10.8  History and Social Science: WG.16, WG.17, WHII.14  ITEEA National Standards 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 5. The Effects of Technology on the Environment
<b>Exploring Health and Safety Challenges in Energy and Power</b>	
Describe health challenges (past, present, and future) posed by and to the energy industry.	English: 9.5, 10.5  History and Social Science: WG.16, WG.17, WHII.8, WHII.14  ITEEA National Standards: 1. The Characteristics and Scope of Technology 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 16. Energy and Power Technologies 5. The Effects of Technology on the Environment
Describe safety challenges (past, present, and future) posed by and to the energy industry.	English: 9.5, 10.5  History and Social Science: WG.16, WG.17, WHII.8, WHII.14  ITEEA National Standards: 16. Energy and Power Technologies

Task	SOL Correlations
Explain the role of regulatory agencies on health and safety.	English: 9.5, 9.8, 10.5, 10.8  ITEEA National Standards: 1. The Characteristics and Scope of Technology 16. Energy and Power Technologies
Follow safety guidelines.	English: 9.5, 9.8, 10.5, 10.8  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 12. Use and Maintain Technological Products and Systems
Present on health and safety solutions within the industry.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
<b>Describing Energy Policy and Trends</b>	
Define <i>energy policy</i> .	English: 9.3, 9.5, 10.3, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Identify environmental, health, and safety aspects of the energy life cycle.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies 5. The Effects of Technology on the Environment
Discuss examples of energy efficiency policy and why they are important.	English: 9.1, 10.1, 12.1  ITEEA National Standards: 16. Energy and Power Technologies

Task	SOL Correlations
Discuss examples of renewable energy and storage policy and why they are important.	English: 9.1, 10.1, 12.1  History and Social Science: GOVT.8  Science: ES.6  ITEEA National Standards: 16. Energy and Power Technologies
Discuss examples of energy policy and why they are important.	English: 9.1, 10.1  ITEEA National Standards: 16. Energy and Power Technologies
Discuss examples of research and development energy policy and why they are important.	English: 9.1, 10.1  ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 16. Energy and Power Technologies
Discuss examples of other kinds of energy policy and why they are important.	English: 9.1, 10.1  ITEEA National Standards: 16. Energy and Power Technologies
Analyze challenges that have led to developing new energy policies.	English: 9.5, 10.5, 11.5, 12.5  ITEEA National Standards: 16. Energy and Power Technologies 4. The Cultural, Social, Economic, and Political Effects of Technology 5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology 7. The Influence of Technology on History

Task	SOL Correlations
Identify decommissioning and reclamation efforts.	English: 9.3, 9.5, 10.3, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Research energy policy trends.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies
Investigate career options within the energy sector.	English: 9.5, 10.5  ITEEA National Standards: 16. Energy and Power Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields