

Standards Correlations

Foundations of Agriculture, Food, and Natural Resources (8006)

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
	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
	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 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 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

Task	SOL Correlations
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

Task SOL Correlations	
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.	
Explore career opportunities related to the WBL experience.	

Task	SOL Correlations
Participate in a WBL experience, when appropriate.	
Exploring Leadership Opportunities through FFA	
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
Exploring the Agriculture Industry	
Explore career opportunities related to AFNR.	English: 9.5, 9.6, 9.7, 9.8, 10.5, 10.6, 10.7, 10.8
Identify Virginia's major agricultural commodities and products by region.	English: 9.5, 10.5 Science: ES.5
Examine the history of agriculture in Virginia, the United States, and globally.	English: 9.5, 10.5 History and Social Science: WG.4, WG.14, WG.16, WHI.2, WHI.3

Task	SOL Correlations
Examine the relationship of science and technology to agriculture.	English: 9.3, 9.5, 10.3, 10.5 History and Social Science: VUS.14, WG.17, WHI.2, WHI.3, WHII.14 Science: BIO.7
Analyze the effects of agriculture on the local, state, national, and global economy.	English: 9.3, 9.5, 10.3, 10.5 History and Social Science: VUS.14, WG.17, WHII.14
Explain the future of AFNR.	English: 9.5, 10.5 History and Social Science: WG.14, WHII.8
Identify local, state, and federal stakeholders relevant to AFNR.	English: 9.5, 10.5 History and Social Science: VUS.13, VUS.14
Examine agricultural issues related to population, food, energy, and the environment.	English: 9.5, 10.5 History and Social Science: VUS.14, WG.14, WG.17, WHII.14 Science: BIO.8
Investigating Basic Scientific Skills and Principles in Plant Science	
Define terms associated with plant science.	English: 9.3, 10.3 Science: BIO.4
Describe the influence of biotechnology on AFNR.	English: 9.3, 9.5, 10.3, 10.5 History and Social Science: VUS.14, WG.17, WHII.14 Science: BIO.5

Task	SOL Correlations
Explain the functions of major plant parts.	English: 9.5, 10.5 Science: BIO.4
Explain the process of photosynthesis and cellular respiration in plants.	English: 9.5, 10.5 Science: BIO.2
Describe the relationship among temperature, light, air, soil/substrate, water, and nutrients required for plant growth.	English: 9.5, 10.5
Propagate plants through sexual and asexual reproduction.	
Grow plants.	History and Social Science: WHI.2, WHI.3
Research a current issue in AFNR using the scientific method.	English: 9.5, 9.8, 10.5, 10.8 History and Social Science: WHII.4 Mathematics: AFDA.8, PS.1*, PS.2*, PS.10* Science: BIO.1
Describe the types of plants that are being developed using biotechnology.	English: 9.5, 10.5 History and Social Science: VUS.14, WG.17, WHII.14
Investigating Basic Scientific Skills and Principles in Animal Science	
Define terms related to animal species.	English: 9.3, 10.3

Task	SOL Correlations
Identify production stages and goals for selected industries.	English: 9.5, 10.5
Identify basic body systems of livestock, poultry, and specialty animals.	English: 9.5, 10.5 Science: BIO.4
Explain animal nutrition and feeding practices.	English: 9.3, 9.5, 10.3, 10.5
Differentiate between the signs of good health and illness in animals.	English: 9.5, 10.5
Describe the responsibilities of the animal industry regarding animal care and welfare.	English: 9.5, 10.5
Identify types of aquaculture systems.	English: 9.5, 10.5
Identify types of aquatic animals and the systems used to rear them.	English: 9.5, 10.5
Identify management interventions, infrastructure, and support technologies used in aquaculture production.	English: 9.5, 10.5
Identify types of facilities used in agricultural production.	English: 9.5, 10.5
Explain the process of constructing agricultural facilities.	English: 9.5, 10.5

Task	SOL Correlations
Identify equipment and facilities required for an aquaculture production facility.	English: 9.5, 10.5
Investigating Basic Scientific Skills and Principles in Food Products and Processing	
Define terms associated with the food industry.	English: 9.3, 10.3 History and Social Science: VUS.14, WG.17, WHII.14
Identify agricultural commodities.	English: 9.5, 10.5 History and Social Science: VUS.13, VUS.14
Examine guidelines for food labels.	English: 9.5, 10.5 History and Social Science: VUS.13, VUS.14
Interpret food packaging and nutrition facts labels.	English: 9.5, 9.8, 10.5, 10.8
Describe the steps involved in the processing of plant and animal food products.	English: 9.5, 10.5
Explain the role that food science plays in ensuring a nutritious, safe, and abundant food supply.	English: 9.5, 10.5
Describe methods of food preservation.	English: 9.5, 10.5 History and Social Science: WHI.2, WHI.3
Perform a method of food preservation.	History and Social Science: WHI.2, WHI.3

Task	SOL Correlations
Identify the four steps to food safety and the potential sources of food contamination.	English: 9.5, 10.5
List the procedures for the safe handling of foods.	English: 9.5, 9.6, 9.7, 10.5, 10.6, 10.7 History and Social Science: VUS.13, VUS.14
Design a food product.	
Investigating Basic Scientific Skills and Principles in Natural Resources Management	
Describe categories of natural resources.	English: 9.5, 10.5 History and Social Science: WG.4 Science: ES.6
Define terms associated with natural resources management.	English: 9.3, 10.3 History and Social Science: WG.4 Science: BIO.8
Explain the relationship between natural resources management and the environment.	English: 9.5, 10.5 History and Social Science: WG.4 Science: BIO.8, ES.6
Identify natural resource BMPs and conservation practices used in agriculture to protect the environment.	English: 9.5, 10.5 History and Social Science: WG.4

Task	SOL Correlations
Identify major forest trees in Virginia and their uses.	Mathematics: A.1, A.4 Science: ES.1
Demonstrating the Use of Agriscience Tools, Equipment, and Instruments in Power, Structural, and Technical Systems	
Explain the need for safety in agricultural mechanics.	English: 9.5, 10.5 History and Social Science: VUS.8, WHII.8
Demonstrate safe practices in the agricultural mechanics lab/workshop.	English: 9.5, 9.6, 9.8, 10.5, 10.6, 10.8 History and Social Science: VUS.8, WHII.8 Science: CH.1
Identify marked safety areas.	English: 9.5, 10.5 History and Social Science: VUS.8, WHII.8
Identify the location and use of eyewash stations.	English: 9.5, 10.5 History and Social Science: VUS.8, WHII.8
Identify the location of the posted evacuation routes.	English: 9.5, 10.5 History and Social Science: VUS.8, WHII.8
Demonstrate knowledge of SDS.	English: 9.5, 10.5 History and Social Science: VUS.8, WHII.8 Science: CH.1

Task	SOL Correlations
Demonstrate the use of chemicals.	
Demonstrate the use of standard and metric hand tools.	History and Social Science: WHI.2, WHI.3
Demonstrate standard measurement techniques in agricultural mechanics.	English: 9.3, 9.5, 10.3, 10.5 Mathematics: A.1, A.4
Demonstrate the use of precision standard and metric measuring tools.	
Demonstrate the use of protective clothing and equipment.	History and Social Science: VUS.8, WHII.8
Demonstrate use of fire protection equipment.	History and Social Science: VUS.8, WHII.8
Demonstrate the use of hand tools, portable power tools, and equipment.	History and Social Science: WHI.2, WHI.3
Demonstrate basic woodworking skills.	English: 9.5, 10.5 History and Social Science: WHI.2, WHI.3
Identify various metal fabrication technologies.	
Explain the principles of arc welding.	English: 9.5, 10.5
Identify arc welding tools, equipment, and supplies.	

Task	SOL Correlations
Perform arc welding.	
Create an agricultural project.	English: 9.1, 9.5, 9.6, 10.1, 10.5, 10.6 Mathematics: A.1, A.4
Demonstrating Skills in Agribusiness	
Explain basic principles of agricultural economics.	English: 9.5, 10.5
Identify the components of a business and financial plan.	English: 9.5, 10.5
Identify financial management tools used in an agricultural business.	
Describe how the four Ps of marketing are used to develop a successful marketing strategy for an agricultural product or service.	English: 9.5, 10.5
Define terms associated with banking and business operations.	English: 9.3, 10.3 History and Social Science: VUS.10, WHII.10, WHII.11
Develop a personal financial plan, including a budget.	English: 9.1, 9.5, 10.1, 10.5