IDAHO AG LEADERSHIP AND COMMUNICATIONS PROGRAM STANDARDS

2017

Approved by the State
Board of Education
August 2018

CONTENT STANDARD 1.0: APPLIED COMMUNICATIONS AND LEADERSHIP THROUGH AGRICULTURAL EDUCATION

Performance Standard 1.1: Applying Communication Skills Through Agricultural Education

1.1.1   Participate in one of the following communications-related Leadership Development Events (LDE): extemporaneous speaking, prepared public speaking, agricultural issues forum, marketing plan, or agricultural communications at the local level or higher.

1.1.2   Effectively demonstrate the ability to communicate in a group setting through participation in the chapter conduct of meetings or parliamentary procedure Leadership Development Events (LDE) at the local level or higher.

Performance Standard 1.2: Applying Leadership Skills Through Agricultural Education

1.2.1   Expand leadership experience by facilitating a FFA chapter activity.

1.2.2   Participate in a career development event (CDE) at a local level or higher.

1.2.3   Develop a personal leadership plan (Leadership Self-Assessment, Goals, Action Plan etc.).

1.2.4   Demonstrate servant leadership through a school or community improvement project.

CONTENT STANDARD 2.0: SUPERVISED AGRICULTURAL EXPERIENCE (SAE)

Performance Standard 2.1: Maintain a Supervised Agricultural Experience

2.1.1   Explain the importance of learning through supervised experiences.

2.1.2   Compare and contrast four main types of SAE.

2.1.3   Develop a plan for a personal SAE including an evaluation of personal resources and interests.

2.1.4   Apply proper record keeping skills related to an SAE program.

CONTENT STANDARD 3.0: CAREER OPPORTUNITIES IN AGRICULTURAL SCIENCES, COMMUNICATIONS AND LEADERSHIP

Performance Standard 3.1: Employment in Agricultural Sciences, Communications and Leadership Fields

3.1.1   Identify communication and leadership career opportunities in agriculture.

3.1.2   Identify personal characteristics (e.g., soft skills or transferable skills) employers find desirable in agriculture.

3.1.3   Identify the necessary skills, experiences, and education required to reach a specific career in agriculture.

3.1.4   Develop necessary materials required to obtain a career in the agricultural sciences, communications, and leadership fields (e.g., job application, cover letter, resume) and participate in the Job Interview CDE at the local level or higher.

IDAHO AG LEADERSHIP AND COMMUNICATIONS PROGRAM STANDARDS

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CONTENT STANDARD 4.0: EXPLORE AGRICULTURE AND SOCIETY

Performance Standard 4.1: Agriculture's Impact on Society

4.1.1 Define agriculture and the components of the agriculture industry in Idaho, nationally, and globally.

4.1.2 Explain the scope of agriculture as it relates to land use, economic impact, and employment in Idaho, nationally, and globally.

4.1.3 Examine multiple viewpoints of an agriculture policy issue affecting the local community, Idaho, the nation, or the world (specifically researching in federal regulations, state statute or rule).

4.1.4 Analyze the importance of agriculture to individuals and society.

4.1.5 Discuss how citizens and interest groups can affect agricultural policies.

Performance Standard 4.2: History and Future of Agricultural Sciences, Communications and Leadership

4.2.1 Describe historic advancements in agriculture.

4.2.2 Analyze the impact of technology in agriculture.

4.2.3 Understand the impact of increasing global population on agriculture.

CONTENT STANDARD 5.0: EXPLORE AGRICULTURAL SCIENCE PRINCIPLES

Performance Standard 5.1: Examine Agriculture as a Science

5.1.1 Describe the scientific method.

5.1.2 Explain, using examples, why applied research in agriculture is important.

5.1.3 Design a testable experiment related to agriculture.

5.1.4 Describe the relationship between public policy and applied research.

CONTENT STANDARD 6.0: EXPLORE AGRICULTURAL COMMUNICATION PRINCIPLES

Performance Standard 6.1: Examine Communication Skills in Agriculture

6.1.1 Identify basic communication skills.

6.1.2 Recognize the importance of non-verbal communication.

6.1.3 Understand the components of effective written communication.

6.1.4 Choose an issue and prepare written communication (e.g., email, memos, letters) to advocate the issue to a specific audience.

Performance Standard 6.2: Examine Agricultural Media

6.2.1 Demonstrate news writing procedures.

6.2.2 Examine the field of Public Relations.

6.2.3 Examine the field of Broadcast Journalism.

6.2.4 Explore the importance of social media and digital citizenship.

IDAHO AG LEADERSHIP AND COMMUNICATIONS PROGRAM STANDARDS

CONTENT STANDARD 7.0: EXPLORE AGRICULTURAL LEADERSHIP PRINCIPLES

Performance Standard 7.1: Examine Leadership Skills in the Agricultural Sciences

7.1.1	Discuss the characteristics of effective leaders.
7.1.2	Differentiate between types of leadership.
7.1.3	Explain the importance of developing personal leadership skills.
7.1.4	Analyze the factors of team dynamics.
7.1.5	Describe how an individual develops a personal leadership style.
7.1.6	Identify strategies to foster diversity within a group.
7.1.7	Examine how active listening can be applied to conflict management and consensus building.
7.1.8	Identify appropriate etiquette and professionalism in group settings.

IDAHO AG MECHANICS AND POWER SYSTEMS PROGRAM STANDARDS

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CONTENT STANDARD 1.0: OCCUPATIONAL SAFETY AND HEALTH IN AG MECHANICS

Performance Standard 1.1: Safety Practices

1.1.1	Explain the importance of safety of agricultural mechanics.
1.1.2	Identify and differentiate between safe and unsafe work practices.
1.1.3	Describe the methods utilized to implement safe work practices.
1.1.4	Identify and explain the purpose of signals and symbols in agricultural safety.
1.1.5	Explain the importance and function of safety training.
1.1.6	Evaluate the importance of occupational safety and health in agriculture mechanics.
1.1.7	Identify and explain the role that various agencies play in regulating safety.
1.1.8	Identify and demonstrate the proper use of personal protection equipment (PPE).
1.1.9	Locate and demonstrate the proper uses of the first aid and emergency equipment.
1.1.10	Maintain a general safe working environment.
1.1.11	Demonstrate the proper disposal of hazardous waste.
1.1.12	Read and understand safety data sheets (SDS).

CONTENT STANDARD 2.0: TOOLS AND HARDWARE

Performance Standard 2.1: Safe and Proper Use of Tools

2.1.1	Determine which hand tool, power tool and measuring and marking devices are most appropriate for a job.
2.1.2	Identify and safely use hand and power tools utilized in agricultural mechanics.
2.1.3	Identify and properly use measuring and marking tools.
2.1.4	Measure and apply metric to standard measurement conversions.
2.1.5	Inspect and maintain tools.

Performance Standard 2.2: Hardware and Fasteners

2.2.1	Identify and select proper common hardware and fasteners.

CONTENT STANDARD 3.0: METAL TECHNOLOGY

Performance Standard 3.1: Welding

3.1.1	Demonstrate proper safety practices working with metal technology.
3.1.2	Determine uses of metal.
3.1.3	Identify types of metal and the proper welding technique.
3.1.4	Recognize properties of metal.
3.1.5	Properly select and use oxy-fuel equipment.
3.1.6	Properly select and use shielded metal arc welding equipment.
3.1.7	Properly select and use gas metal arc welding equipment.
3.1.8	Properly select and use gas tungsten arc welding equipment.
3.1.9	Properly select and use plasma cutting equipment.
3.1.10	Properly select welding consumables (i.e., wire, electrode, gas and filler rod).

IDAHO AG MECHANICS AND POWER SYSTEMS PROGRAM STANDARDS

Performance Standard 3.2: Cold Metal Work

3.2.1	Read metal working plans.
3.2.2	Properly cut threads with a tap and die.
3.2.3	Join metal by riveting.
3.2.4	Properly thread steel pipe.
3.2.5	Lay out holes and drill holes using a twist drill.
3.2.6	Bend sheet and strap metal to angles and/or shapes.

CONTENT STANDARD 4.0: POWER SYSTEMS

Performance Standard 4.1: Engines Technology

4.1.1	Identify the operating principles of internal combustion engines.
4.1.2	Explain the function and operating principles of the fuel, lubrication, governor, and ignition systems.
4.1.3	Locate technical information in electronic and print form.
4.1.4	Troubleshoot and maintain engines.

Performance Standard 4.2: Electric Motors

4.2.1	Select motors based on type of application.

Performance Standard 4.3: Agricultural Machinery

4.3.1	Identify and perform basic equipment maintenance on agricultural machinery.
4.3.2	Use mathematics to solve equipment calibration problems.
4.3.3	Demonstrate converting common units of measure found in agriculture.

Performance Standard 4.4: Hydraulics

4.4.1	Identify the parts and functions of the hydraulic systems.
4.4.2	Identify the applications of hydraulics in agriculture.

CONTENT STANDARD 5.0: ELECTRICITY

Performance Standard 5.1: Basic Electrical Principles

5.1.1	Demonstrate proper safety practices when working with electricity.
5.1.2	Define basic electrical terminology; identify and explain the basic principles of electricity.
5.1.3	Recognize electrical code requirements for wiring.
5.1.4	Plan and install an electrical circuit.
5.1.5	Measure electrical circuits for voltage, current flow, resistance, and wattage.
5.1.6	Trouble-shoot electrical circuits.
5.1.7	Describe the relationship of volts, amps, and ohms in terms of Ohm's Law.

CONTENT STANDARD 6.0: MATHEMATICAL APPLICATIONS

Performance Standard 6.1: Mathematical Applications in Agriculture Mechanics & Power Systems

6.1.1	Perform mathematical operations for whole numbers, fractions, decimals, ratios, percentages, and rounding (significant figures).
6.1.2	Demonstrate converting common units of measure found in agriculture.

IDAHO AG MECHANICS AND POWER SYSTEMS PROGRAM STANDARDS

6.1.3   Explain the meaning of accuracy verses precision.

6.1.4   Use mathematics to solve equipment calibration problems.

CONTENT STANDARD 7.0: INSULATION

Performance Standard 7.1: Insulation

7.1.1   Explain the importance of insulation.

7.1.2   Explain the theory behind insulation.

7.1.3   Identify and select insulation materials.

CONTENT STANDARD 8.0: EMERGING TECHNOLOGIES

Performance Standard 8.1: Emerging Technologies in Ag Systems

8.1.1   Identify uses of precision and emerging technology in agriculture.

8.1.2   Understand the potential applications of new technology in agriculture.

CONTENT STANDARD 9.0: CAREERS

Performance Standard 9.1: Careers in Ag Mechanics

9.1.1   Research potential careers in ag mechanics.

9.1.2   Demonstrate employability skills for a career in ag mechanics industry.

9.1.3   Research additional industry certifications available.

CONTENT STANDARD 10.0: LEADERSHIP TRAINING THROUGH AGRICULTURAL EDUCATION

Performance Standard 10.1: Effective Leadership and Leadership Training

10.1.1   Expand leadership experience by participating in a chapter activity.

10.1.2   Participate in a career development event at the local level or above.

10.1.3   Exhibit leadership skills by demonstrating proper parliamentary procedure.

10.1.4   Participate in a speech or presentation activity.

Performance Standard 10.2: School and Community Awareness

10.2.1   Participate in a school improvement or community development project.

CONTENT STANDARD 11.0: SUPERVISED AGRICULTURAL EXPERIENCE

Performance Standard 11.1: Maintain a Supervised Agricultural Experience

11.1.1   Accurately maintain SAE record books.

11.1.2   Investigate the proficiency award areas related to SAE program area.

11.1.3   Actively pursue necessary steps to receive higher degrees in FFA.

IDAHO ECOLOGY AND NATURAL RESOURCE MANAGEMENT PROGRAM STANDARDS

2017
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CONTENT STANDARD 1.0: EXPLORE NATURAL RESOURCE SCIENCE AND MANAGEMENT

Performance Standard 1.1: Investigate the Relationship Between Natural Resources and Society, Including Conflict Management

1.1.1 Define natural resource management.

1.1.2 Summarize the history of natural resource conservation and policies.

1.1.3 List and compare major natural resource management agencies, industries, and organizations.

1.1.4 Describe human dependency and demands on natural resources.

1.1.5 Explain natural resource conservation.

1.1.6 Investigate the effects of multiple uses of natural resources (e.g., recreation, mining, agriculture, forestry, public lands grazing).

1.1.7 Explore societal issues and conflicts related to natural resource management.

Performance Standard 1.2: Explain Interrelationships Between Natural Resources and Humans in Managing Natural Environments

1.2.1 Identify the demands of population growth on natural resources and the environment.

1.2.2 Examine the use and management of renewable and nonrenewable resources.

1.2.3 Describe the role of individuals in stewardship of the environment.

1.2.4 Research and debate current issues related to the conservation or preservation of natural resources.

CONTENT STANDARD 2.0: INVESTIGATE ECOLOGICAL CONCEPTS AND SCIENTIFIC PRINCIPLES RELATED TO NATURAL RESOURCE SYSTEMS

Performance Standard 2.1: Explore Ecological Principles in Natural Resource Management

2.1.1 Define ecosystems and biomes and identify ecoregions of Idaho.

2.1.2 Identify natural processes that govern ecosystems over time.

2.1.3 Describe the interdependence of organisms within an ecosystem (e.g., food chains and webs).

2.1.4 Investigate the processes associated with ecological succession.

2.1.5 Explain the importance of biodiversity.

Performance Standard 2.2: Explore Properties of Soil

2.2.1 Summarize soil formation factors.

2.2.2 Identify soil texture.

2.2.3 Describe soil conservation practices.

2.2.4 Analyze and interpret soil data.

Performance Standard 2.3: Explore Principles of Hydrology

2.3.1 Define watersheds and explain their hydrological and ecological function.

2.3.2 Discriminate between point and nonpoint pollution sources.

IDAHO ECOLOGY AND NATURAL RESOURCE MANAGEMENT PROGRAM STANDARDS

2.3.3	Analyze and interpret water quality data.
2.3.4	Describe the function of wetlands and importance of wetland management.
2.3.5	Identify laws and regulations governing water.

CONTENT STANDARD 3.0: EXPLORE PRINCIPLES OF RANGELAND MANAGEMENT

Performance Standard 3.1: Identify Rangeland Types and Management Practices

3.1.1	Define rangelands and identify key characteristics.
3.1.2	Identify major rangeland types in Idaho.
3.1.3	Compare public and private management of rangelands.
3.1.4	Identify multiple uses of rangelands.
3.1.5	Identify laws, policies, and managing entities of rangelands.
3.1.6	Identify impacts of use on rangelands.

Performance Standard 3.2: Understanding the Historic, Environmental, Social and Economic Importance of Idaho Rangelands

3.2.1	Understand how rangelands have been important to humans throughout time.
3.2.2	Identify the ecological services provided by rangelands.
3.2.3	Recognize the value of rangelands to society.
3.2.4	Understand the importance of working rangelands for the economic livelihood of Idaho and other parts of the country and world.

Performance Standard 3.3: Identify Common Idaho Rangelands Plants

3.3.1	Identify morphological characteristics of rangeland plants.
3.3.2	Use a dichotomous key to identify rangeland plants.
3.3.3	Assemble a plant collection.
3.3.4	Identify important Idaho rangeland plants and evaluate their use by animals.
3.3.5	Define native, introduced, invasive, noxious, and poisonous plants.

Performance Standard 3.4: Apply Rangeland Management Practices

3.4.1	Identify key components of a management plan.
3.4.2	Identify rangeland management tools and techniques.
3.4.3	Use rangeland measurement tools.
3.4.4	Conduct a rangeland inventory and interpret data.
3.4.5	Determine stocking rates based on animal demand and forage supply.
3.4.6	Discuss the impacts of dynamic forces of change on rangelands (e.g., fire, weather, insects, disease, people, animals, invasive species) and identify management strategies.

CONTENT STANDARD 4.0: EXAMINE FOREST RESOURCES AND MANAGEMENT

Performance Standard 4.1: Identify Forest Types and Management Practices

4.1.1	Define forests and identify key characteristics.
4.1.2	Identify major forest types in Idaho.
4.1.3	Assess different methods of forest management.
4.1.4	Compare public and private management of forests.

IDAHO ECOLOGY AND NATURAL RESOURCE MANAGEMENT PROGRAM STANDARDS

4.1.5   Identify multiple uses of forests.

4.1.6   Identify laws, policies, and managing entities of forests.

4.1.7   Identify impacts of use on forests.

Performance Standard 4.2: Understanding the Historic, Environmental, Social and Economic Importance of Idaho Forests

4.2.1   Understand how forests have been important to humans throughout time.

4.2.2   Identify the ecological services provided by forests.

4.2.3   Recognize the value of forests to society.

4.2.4   Understand the importance of working forests for the economic livelihood of Idaho and other parts of the country and world.

Performance Standard 4.3: Identify Common Idaho Forest Plants

4.3.1   Identify morphological characteristics of forest plants.

4.3.2   Use a dichotomous key to identify trees, shrubs, and other forest plants.

4.3.3   Assemble a plant collection.

4.3.4   Identify important Idaho forest plants and evaluate their use by animals.

4.3.5   Define native, introduced, invasive, noxious, and poisonous plants.

Performance Standard 4.4: Apply Forest Management Practices

4.4.1   Identify key components of a management plan.

4.4.2   Identify forest management tools and techniques.

4.4.3   Use forest measurement tools.

4.4.4   Conduct a forest inventory and interpret data.

4.4.5   Define silviculture and compare different timber harvest systems.

4.4.6   Discuss impacts of dynamic forces of change (e.g., fire, weather, insects, disease, people, animals, invasive species) on forests and identify management strategies.

CONTENT STANDARD 5.0: EXPLORE FIRE ECOLOGY AND MANAGEMENT

Performance Standard 5.1: Explore the Effects of Fire on Rangeland and Forest Ecosystems

5.1.1   Explain the significance of each of the components of the "fire triangle."

5.1.2   Discuss the fire behavior triangle (fuel, weather, topography).

5.1.3   Interpret the factors affecting fire frequency in Idaho past, present, and future.

5.1.4   Describe the social, economic, and ecological effects of wildland fire.

5.1.5   Examine the role of fuel management and the relationship between fuel load and fire effects in rangeland and forest ecosystems.

CONTENT STANDARD 6.0: UNDERSTAND THE IMPORTANCE AND APPLICATION OF GPS/GIS IN NATURAL RESOURCE MANAGEMENT

Performance Standard 6.1: Investigate GPS/GIS Systems and Their Applications

6.1.1   Define the uses of geographic information systems (GIS) and spatial analysis as it applies to natural resource management.

6.1.2   Describe the purpose and function of a Global Positioning System (GPS).

IDAHO ECOLOGY AND NATURAL RESOURCE MANAGEMENT PROGRAM STANDARDS

6.1.3   Demonstrate the ability to use a GPS unit by navigating and collecting waypoints.

Performance Standard 6.2: Demonstrate the Use of Land Management Maps

6.2.1   Use legal descriptions to identify locations and acreage.
6.2.2   Identify symbols on topographical maps.
6.2.3   Predict terrain based on topographical maps.
6.2.4   Demonstrate the ability to find GPS locations on a topographic map.

CONTENT STANDARD 7.0: INVESTIGATE FISH AND WILDLIFE ECOLOGY

Performance Standard 7.1: Explore the Importance and Distribution Fish and Wildlife Resources in Idaho

7.1.1   Identify the seven categories of wildlife.
7.1.2   Connect the distribution of wildlife associated with private and public land.
7.1.3   Describe the importance of wildlife, including indigenous and migratory species, their physical and behavioral characteristics, habitat and management.
7.1.4   List impacts on wildlife habitat.
7.1.5   Describe techniques used in harvesting of wildlife.
7.1.6   Summarize appropriate outdoor safety practice.
7.1.7   Describe techniques of wildlife habitat improvement.

Performance Standard 7.2: Understand Wildlife Management

7.2.1   Identify the agencies and organizations associated with wildlife management.
7.2.2   Explore the role of USDA - Wildlife Services, DOI – US Fish and Wildlife Service, and Idaho Fish & Game concerning wildlife management.

CONTENT STANDARD 8.0: EXAMINE MINERAL AND ENERGY RESOURCES MANAGEMENT

Performance Standard 8.1: Examine Mineral Resources and Management

8.1.1   Identify local mineral resources.
8.1.2   Summarize the impact of mineral resources to society.
8.1.3   Compare the various practices for obtaining mineral resources.
8.1.4   Describe the impact of mining practices on the environment.
8.1.5   Compare processes for reclaiming areas where minerals have been extracted.

Performance Standard 8.2: Recognize the Types and Importance of Energy Resources

8.2.1   Differentiate between renewable and nonrenewable energy resources.
8.2.2   Investigate types of renewable resources.
8.2.3   Compare types of electrical power generation.
8.2.4   Analyze positive and negative impact of energy development on the environment.

IDAHO ECOLOGY AND NATURAL RESOURCE MANAGEMENT PROGRAM STANDARDS

CONTENT STANDARD 9.0: EXPLORE CAREER OPPORTUNITIES IN THE NATURAL RESOURCE INDUSTRY

Performance Standard 9.1: Understand Employment Fields in the Natural Resource Industry

9.1.1	List and describe the types of employment opportunities in natural resource management.
9.1.2	Explore education and training for different natural resource management careers.
9.1.3	Describe the process of choosing a career path in the natural resource management industry.

CONTENT STANDARD 10.0: PARTICIPATE IN LEADERSHIP TRAINING THROUGH MEMBERSHIP IN A STUDENT LEADERSHIP ORGANIZATION

Performance Standard 10.1: Recognize the Traits of Effective Leaders and Participate in Leadership Training Through Involvement in a Student Leadership Organization

10.1.1	Expand leadership experience by serving as a chapter officer or on a committee.
10.1.2	Exhibit leadership skills by demonstrating proper parliamentary procedure.
10.1.3	Participate in a career development event at the local level or above.

CONTENT STANDARD 11.0: DESCRIBE THE RELATIONSHIP BETWEEN A SUPERVISED AGRICULTURAL EXPERIENCE (SAE) AND PREPARATION OF STUDENTS FOR A CAREER IN AGRICULTURE

Performance Standard 11.1: Maintain a Supervised Agricultural Experience

11.1.1	Accurately maintain SAE record books.
11.1.2	Apply for a proficiency award related to the SAE program area.
11.1.3	Actively pursue necessary steps to receive higher degrees or recognition in a student leadership organization.