

Forestry

Academic Content Area: Environment and Ecology – Grade 10

Career Development Event Content

1. Understand the economic impact of the forest environment and industry.
2. Recognize environmental and social factors affecting the management of forests.
3. Recognize and understand approved silvicultural practices in the United States.
4. Ability to take forest inventory.
5. Ability to utilize marketing management strategies.
6. Ability to recognize safety practices in forest management.
7. Identify forest disorders, hand tools, equipment, and their use in forest management.
8. Identify major species of trees of economic importance to the United States and internationally.
9. Ability to recognize multiple use opportunities in the forests.
10. Understand forestry terms.

Related Academic Standards/Anchors

Objectives 1-10: **4.2.10.A,B,C; 4.3.10.B,C; 4.4.10.A; 4.5.10.A,B,C; 4.6.10C; 4.7.10.A; 4.8.10.A,B,C,D; 4.9.10.A**

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 4.4.10.A: Describe the importance of agriculture to society. Sub-point, Identify laws that affect conservation and management of food and fiber production in the local area and analyze their impact. **Students must have and understanding of the laws that affect the conservation and management of the fiber industry which includes forests. In addition, students must have an understanding of their impact on our local area and the United States.**

Ex. 2 – Related to 4.5.10.B: Analyze health benefits and risks associated with integrated pest management. Sub-point, identify the health risks associated with chemicals used in common pesticides. **Students will need to have an in depth knowledge of pesticides used within the forest industry and associated risks of chemicals used in the pesticides.**

Ex. 3 – Related to 4.8.10.C: Identify and explain why adaptations can lead to specializations. Sub-point, explain how management practices may influence the success of specific species. **A knowledge of forest management must be evident in how management practices can influence succession and the success of specific species as found by browsing the timber.**

Forestry

Academic Content Area: Mathematics – Grade 11

Career Development Event Content

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Related Academic Standards/Anchors

Objectives 1-10: 2.1.11.A; 2.2.11.A,B; 2.3.11.A,B,C; 2.5.11.A,B,C,D

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 2.2.11.A: Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations. **Students must develop computation concepts, operations and procedures with real numbers prior to the career development event that enables them to use these skills during the completion of the examination and team activity.**

Ex. 2 – Related to 2.3.11.A: Select and use appropriate units and tools to measure to the degree of accuracy required in particular measurement situations. **Students are required to cruise timber and evaluate designated forested land plots that will require the usage of specific measurements used in global positioning satellite units.**

Ex. 3 – Related to 2.5.11.A: Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems. **Students must be familiar with and experienced in using a variety of mathematical concepts when completing their examination and team activity. For example, your company plans a prescribed burn on a tract of land that is 20 chains by 10 chains. The cost of prescribed burning in your area is \$5.00/acre. Under typical conditions, how much will it cost to prescribe burn your land?**

Forestry

Academic Content Area: Reading, Writing, Speaking and Listening – Grade 11

Career Development Event Content

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Related Academic Standards/Anchors

Objectives 1-10: **1.1.11.A,C,E,F; 1.2.11.A; 1.6.11.A,D,E**

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 1.1.11.A: Locate various texts, media and traditional resources for assigned and independent projects before reading. **Students are given the forestry career development guidelines and required to secure the appropriate texts, media and study resources for each of the specific competitive areas.**

Ex. 2 – Related to 1.2.11.A: Read and understand essential content of informational texts and documents in all academic areas. Sub-point, distinguish between essential and nonessential information across a variety of sources, identifying the use of proper references or authorities and propaganda techniques where present. Students are given a wide variety of sources and resources during the career development event from which they must be able to distinguish between essential information needed to answer the questions or problems.

Ex. 3 – Related to 1.6.11. E: Participate in small and large group discussions and presentations. **Students are required to answer a problem-solving question as a group. For example, this test has been developed to determine your knowledge of BMP, Log Volume, Log Grade, Log Value and Timber Stand Improvement. Use the given information to answer the following questions.**

Forestry

Academic Content Area: Science and Technology – Grade 10

Career Development Event Content

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4. Ability to take forest inventory.
5. Ability to utilize marketing management strategies.
6. Ability to recognize safety practices in forest management.
7. Identify forest disorders, hand tools, equipment, and their use in forest management.
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9. Ability to recognize multiple use opportunities in the forests.
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Related Academic Standards/Anchors

Objectives 1-10: **3.1.10.D; 3.2.10.D; 3.3.10.A; 3.5.10.A; 3.6.10.A; 3.7.10.A,B**

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 3.1.10.D: Apply scale as a way of relating concepts and ideas to one another by some measure. Sub-points, apply dimensional analysis and scale as a ratio and convert one scale to another.

Students are required to read land description maps, interpret aerial photographs, use a compass and cruise standing timber for diameter, height and volume.

Ex. 2 – Related to 3.5.10.A: Relate earth features and processes that change the earth. Students are required to read topographic maps and understand features specific to the forest areas selected for observation during the career development event.

Ex. 3 – Related to 3.6.10.A: Apply biotechnologies that relate to propagating, growing, maintaining, adapting, treating and converting. Sub-point, apply knowledge of plant and animal production processes in designing an improvement to existing processes. Students must have a very experienced background of dendrology and forest management to be able to observe present processes and develop improved processes for forested areas.