

## FORESTRY MANAGEMENT/8042

<b>Time Frame</b>	<b>SOL Objective/ Competency</b>	<b>Essential Understandings/Questions</b>	<b>Essential Knowledge/Skills</b>
<b>1<sup>st</sup> Quarter (First 4½ Weeks)</b>	<p><b>History and Social Science</b> CE.4, CE.3,GOVT.3, GOVT.17, VUS.14,CE.1, GOVT.16, GOVT.15, VUS.15, CE.12,</p> <p><b>English</b> 6.5, 6.6, 6.7, 7.6, 7.8, 7.9, 8.6, 8.7, 8.8, 9.4, 9.6, 9.7, 10.4, 10.7, 10.8, 10.9, 11.4, 11.8, 11.9, 12.4, 12.7,6.2, 7.1, 7.2, 10.1</p>	<p><b>Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills</b></p> <p><b>Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills</b></p> <p><b>Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills</b></p> <p><b>Addressing Elements of Student Life</b></p>	<p>Demonstrate positive work ethic.</p> <p>Demonstrate integrity.</p> <p>Demonstrate teamwork skills.</p> <p>Demonstrate self-representation skills.</p> <p>Demonstrate diversity awareness.</p> <p>Demonstrate conflict-resolution skills.</p> <p>Demonstrate creativity and resourcefulness.</p> <p>Demonstrate effective speaking and listening skills.</p> <p>Demonstrate effective reading and writing skills.</p> <p>Demonstrate critical-thinking and problem-solving skills.</p> <p>Demonstrate healthy behaviors and safety skills.</p> <p>Demonstrate an understanding of workplace organizations, systems, and climates.</p> <p>Demonstrate lifelong-learning skills.</p> <p>Demonstrate job-acquisition and advancement skills</p> <p>Demonstrate time-, task-, and resource-management skills.</p> <p>Demonstrate proficiency with technologies common to a specific occupation.</p> <p>Demonstrate information technology skills.</p> <p>Demonstrate an understanding of Internet use and security issues.</p> <p>Demonstrate telecommunications skills.</p>

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<b>2<sup>nd</sup> Quarter (Second 4½ Weeks)</b>	<p><b>Mathematics</b> PS.8, MA.14</p> <p><b>English</b> 9.4, 10.4, 11.4, 12.4</p> <p><b>History and Social</b></p>	<p><b>Examining All Aspects of an Industry</b></p> <p><b>Introducing Forestry</b></p> <p><b>Examining Tree Physiology</b></p>	<p>Examine aspects of planning within an industry/organization.</p> <p>Examine aspects of management within an industry/organization.</p>

	<p><b>Science</b> GOVT.18, GOVT.16, GOVT.17, GOVT.9, VUS.15,VUS.1</p> <p><b>Science</b> BIO.9, ES.7, ES.9, ES.2,</p>	<p><b>Exploring Careers in Forestry</b></p> <p><b>Understanding Forest Ecology</b></p>	<p>Examine aspects of financial responsibility within an industry/organization.</p> <p>Examine technical and production skills required of workers within an industry/organization.</p> <p>Examine principles of technology that underlie an industry/organization.</p> <p>Examine labor issues related to an industry/organization.</p> <p>Examine community issues related to an industry/organization.</p> <p>Examine health, safety, and environmental issues related to an industry/organization.</p> <p>Describe the social, cultural, economic, and environmental significance of forests.</p> <p>Explain factors that influence forest resources.</p> <p>Illustrate relationships between humans and the organisms that depend on the forest.</p> <p>Describe responsible use of forest resources</p> <p>Explain the need to build a comprehensive system of partnerships in managing sustainable forestry.</p> <p>Describe new technology used in forest management.</p> <p>Summarize the history of Virginia's forests and forestry industry.</p> <p>Explain the functions of the major parts of the tree.</p> <p>Explain the formula for photosynthesis.</p> <p>Describe respiration and transpiration.</p> <p>Examine careers and employment in the forestry sector.</p> <p>Analyze relationships among the elements in forest ecosystems.</p> <p>Explain the role of trees in the ecosystem.</p> <p>Examine the life process of trees and other forest plants.</p> <p>Describe relationships between soil types and forest species.</p> <p>Examine the role hydrology plays in forest systems.</p>
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<b>3<sup>rd</sup> Quarter</b> (Third 4½ Weeks)	<p>Science ES.3 ES.7 BIO.9,</p> <p>History and Social Science VUS.1, VUS.15, GOVT.17, GOVT.9, VUS.1, GOVT.15, GOVT.16, GOVT.18</p>	<p>Examining Native Forests</p> <p>Comparing Forest Regions of North America</p> <p>Managing Forest Systems</p> <p>Exploring Issues and Trends in Forestry</p> <p>Examining the Roles of Parks and Natural Areas</p>	<p>Explore the regions of native forests.</p> <p>Explore pressing issues facing the future of native forests.</p> <p>Compare the methods of aerial photography and satellite data in identifying forest groups.</p> <p>Examine factors that limit forest regeneration.</p> <p>Describe climate factors that influence tree growth and diversity.</p> <p>Examine the human impact on forest systems.</p> <p>Describe the increased demand for forest products.</p> <p>Explain the importance of conservation and planning during reforestation.</p> <p>Explore the special interest groups involved in decision-making and planning processes of forest management</p> <p>Describe how forests in Virginia have changed since colonization.</p> <p>Examine the concepts of <i>sustainable development</i> and <i>sustainable yield</i> of forest products.</p> <p>Map local forest areas in Virginia.</p> <p>Examine insects and diseases affecting Virginia forests</p> <p>Identify differing perspectives associated with current issues in forest management.</p> <p>Compare issues facing Virginia forests, including its national forests.</p> <p>Examine the influence of global markets on forest management.</p>

			<p>Compare recreational and commercial uses of forests.</p> <p>Examine the impact of laws and policies on forest products.</p> <p>Identify ways the general public can make a positive impact on forest management.</p> <p>Explain the role of humans in preserving forest ecosystems.</p> <p>Examine the governing agencies of forests and parklands.</p> <p>Identify human interests and values that impact forest and parklands.</p> <p>Describe views of preservation of old-growth forests and implementation of harvest strategies.</p>
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<b>4<sup>th</sup> Quarter</b> (Last 4½ Weeks)	<p>Science BIO.9, ES.7 BIO.5,</p> <p>History and Social Science GOVT.17, VUS.15, GOVT.16</p>	<p>Marketing Forest Products</p> <p>Harvesting Forest Products</p> <p>Practicing Silviculture</p> <p>Preserving Forest Health</p> <p>Managing the Forest Business</p>	<p>Describe products of Virginia forests.</p> <p>Identify factors used to determine when, how, and how many trees to cut.</p> <p>Compare the environmental impact of select and clear-cut operations.</p> <p>Examine reforestation principles.</p> <p>Examine the role of fire in forest systems.</p> <p>Explore the concept of prescribed burn techniques.</p> <p>Compare nutrient requirements of young and old forest systems.</p> <p>Examine the role of biotechnology in forestry.</p> <p>Explain the value of shelterbelts, wildlife habitat protection, and biodiversity.</p> <p>Identify factors that can affect the health of forest systems.</p> <p>Examine the various ways pests can be transported from forest to forest.</p> <p>Evaluate specific symptoms exhibited by trees that are affected by pests.</p> <p>Identify invasive species threatening Virginia forests.</p> <p>Identify policy and laws related</p>

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