

**Winslow Township School District**  
**Greenhouse Curriculum - Grade 8**  
**Unit 2**

Overview	Next Generation Science Standards	Unit Focus	Engineer and Design Process
<b>Unit 2</b> Floral Design/ Business Practice	<ul style="list-style-type: none"> <li>MS-LS1-4</li> <li>MS-LS2-2</li> <li>MS-LS2-3</li> <li>MS-LS2-5</li> </ul>	<ul style="list-style-type: none"> <li>Design a floral arrangement that is both aesthetically pleasing and practical.</li> <li>Apply mathematical concepts to model a successful business.</li> <li>Explain the cultural and historical significance of floral design.</li> <li>Identify equipment used for floral design and explain its function.</li> <li>Determine appropriate pricing for various floral arrangements.</li> <li>Utilize various plants from the greenhouse to advertise a design.</li> </ul>	<ul style="list-style-type: none"> <li>MS-ETS1-1</li> <li>MS-ETS1-2</li> <li>MS-ETS1-3</li> <li>MS-ETS1-4</li> </ul> <pre> graph TD     A[Define the Problem] --&gt; B[Do Background Research]     B --&gt; C[Specify Requirements]     C --&gt; D[Brainstorm, Evaluate, and Choose Solution]     D --&gt; E[Develop and Prototype Solution]     E --&gt; F[Test Solution]     F --&gt; G[Communicate Results]     F --&gt; C     F --&gt; E     G --&gt; F     F --&gt; H[Based on results and data, make design changes, prototype, test again, and review new data.]     H --&gt; E           </pre>
	<b>NJSLA Mathematics Standards</b> <ul style="list-style-type: none"> <li>8.NS.1</li> <li>8.EE.5</li> <li>8.EE.7b</li> <li>8.F.2</li> <li>8.F.4</li> </ul>	<b>NJSLA English Language Arts Standards</b> <ul style="list-style-type: none"> <li>RI.8.1</li> <li>W.8.1</li> <li>W.8.2</li> <li>W.8.6</li> <li>SL.8.1</li> <li>SL.8.5</li> </ul>	

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Curriculum Unit 2	Standards		Pacing	
			Days	Unit Days
Unit 2	MS-LS1-4	Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful	12	45
	MS-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	9	
	MS-LS2-3	Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	8	
	MS-LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services	10	
	Assessment, Re-teach and Extension		6	

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Content Standards	Suggested Science and Engineering Practices	Disciplinary Core Ideas:	Crosscutting Concepts:
<b>MS-LS1-4</b> <i>Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.</i>	Engaging in Argument from Evidence	<ul style="list-style-type: none"> <li>• LS1.B: Growth and Development of Organisms</li> <li>• LS1.C: Organization for Matter and Energy Flow in Organisms</li> </ul>	<ul style="list-style-type: none"> <li>• Cause and effect</li> <li>• Patterns</li> <li>• Energy and Matter</li> </ul>
<b>MS-LS2-2</b> <i>Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.</i>	Constructing Explanations and Designing Solutions	<ul style="list-style-type: none"> <li>• LS2.A: Interdependent Relationships in Ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Patterns</li> </ul>
<b>MS-LS2-3</b> <i>Develop a model to describe the cycling of matter and flow of energy</i>	Developing and Using Models	<ul style="list-style-type: none"> <li>• LS2.B: Cycles of Matter and Energy Transfer in Ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Energy and Matter</li> </ul>

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among living and nonliving parts of an ecosystem.			
MS-LS2-5 Evaluate competing design solutions for maintaining biodiversity and ecosystem services	Engaging in Argument from Evidence	<ul style="list-style-type: none"> <li>LS2.C: Ecosystem Dynamics, Functioning, and Resilience</li> <li>LS4.D: Biodiversity and Humans</li> <li>ETS1.B: Developing Possible Solutions</li> </ul>	<ul style="list-style-type: none"> <li>Stability and Change</li> </ul>

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School/District Formative Assessment Plan	School/District Summative Assessment Plan
Pre-Assessment, Quizzes Daily Monitoring Performance Tasks Blogging Rubrics	Unit Benchmark End of Year Project
Instructional Best Practices and Exemplars	Technology Integration
1. Identifying similarities and differences 2. Summarizing and note taking 3. Reinforcing effort and providing recognition 4. Nonlinguistic representations 5. Reflection 6. Cooperative learning 7. Setting objectives and providing feedback 8. Generating and testing hypotheses 9. Cues, questions, and advance organizers	<a href="#">Floral Design Presentation</a> <a href="#">Longwood Gardens Floral Design Resources</a> <a href="#">Floral Design Resources</a>

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10. Rubric evaluation based on performance			
<b>Vocabulary</b>		<b>21<sup>st</sup> Century Life and Careers Standards</b>	
symmetrical asymmetrical space geometric shapes balance proportion emphasis rhythm harmony unity line form depth	texture color principles elements floriculture tools line flowers line foliage form flowers form foliage mass flowers mass foliage filler flowers filler foliage	<b>Career Ready Practices:</b> <input type="checkbox"/> CRP1: Act as a responsible and contributing citizen and employee. <input type="checkbox"/> CRP2: Apply appropriate academic and technical skills. <input type="checkbox"/> CRP3: <u>Attend to personal</u> health and financial well-being. <input type="checkbox"/> CRP4: Communicate clearly and effectively and with reason. <input type="checkbox"/> CRP5: Consider the environmental, social and economic impacts of decisions. <input type="checkbox"/> CRP6: Demonstrate creativity and innovation.	<input type="checkbox"/> CRP7: Employ valid and reliable research strategies. <input type="checkbox"/> CRP8: Utilize critical thinking to make sense of problems and persevere in solving them. <input type="checkbox"/> CRP9: Model integrity, ethical leadership and effective management. <input type="checkbox"/> CRP10: Plan education and career paths aligned to personal goals. <input type="checkbox"/> CRP11: Use technology to enhance productivity. <input type="checkbox"/> CRP12: Work productively in teams while using cultural global competence.
<b>9.1 Personal Financial Literacy - Income And Careers &amp; 9.2 Career Awareness, Exploration, And Preparation - Career Awareness</b>			
9.1.8.A.4 Relate earning power to quality of life across cultures. 9.1.8.B.6 Evaluate the relationship of cultural traditions and historical influences on financial practice. The implementation of the 21st Century skills and standards for students of the Winslow Township District is infused in an interdisciplinary format in a variety of curriculum areas that include, English language Arts, Mathematics, School Guidance, Social Studies, Technology, Visual and Performing Arts, Science, Physical Education and Health, and World Language.			

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Suggested Modifications for Special Education	Suggested Modifications for At-Risk Students
<input type="checkbox"/> Modify activities/assignments/projects/assessments <input type="checkbox"/> Breakdown activities/assignments/projects/assessments into manageable units <input type="checkbox"/> Additional time to complete activities/assignments/projects/assessments <input type="checkbox"/> Provide an option for alternative activities/assignments/projects/assessments <input type="checkbox"/> Modify Content <input type="checkbox"/> Modify Amount <input type="checkbox"/> Small Group Intervention/Remediation <input type="checkbox"/> Individual Intervention/Remediation <input type="checkbox"/> Additional Support Materials <input type="checkbox"/> Guided Notes <input type="checkbox"/> Graphic Organizers <input type="checkbox"/> Adjust Pacing of Content	<input type="checkbox"/> Modify activities/assignments/projects/assessments <input type="checkbox"/> Breakdown activities/assignments/projects/assessments into manageable units <input type="checkbox"/> Additional time to complete activities/assignments/projects/assessments <input type="checkbox"/> Provide an option for alternative activities/assignments/projects/assessments <input type="checkbox"/> Modify Content <input type="checkbox"/> Modify Amount <input type="checkbox"/> Adjust Pacing of Content <input type="checkbox"/> Small Group Intervention/Remediation <input type="checkbox"/> Individual Intervention/Remediation <input type="checkbox"/> Additional Support Materials <input type="checkbox"/> Guided Notes <input type="checkbox"/> Graphic Organizers
English Language Learners	Suggested Modifications for Gifted Students
All WIDA Can Do Descriptors can be found at this link: <a href="https://www.wida.us/standards/CAN_DOs/">https://www.wida.us/standards/CAN_DOs/</a> <input type="checkbox"/> Grades 6-8 WIDA Can Do Descriptors: <ul style="list-style-type: none"> <li><input type="checkbox"/> Listening</li> <li><input type="checkbox"/> Speaking</li> <li><input type="checkbox"/> Reading</li> <li><input type="checkbox"/> Writing</li> <li><input type="checkbox"/> Oral Language</li> </ul>	<input type="checkbox"/> Modify activities/assignments/projects/assessments <input type="checkbox"/> Provide an option for alternative activities/assignments/projects/assessments <input type="checkbox"/> Modify Content <input type="checkbox"/> Adjust Pacing of Content <input type="checkbox"/> Small Group Enrichment <input type="checkbox"/> Individual Enrichment <input type="checkbox"/> Higher-Level Text
Suggested Activities	Interdisciplinary Connections
<input type="checkbox"/> Whole Group	<a href="#">Sustainability</a>

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<input type="checkbox"/> Small Groups <input type="checkbox"/> Guided Practice <input type="checkbox"/> Independent Practice <input type="checkbox"/> Work Stations <input type="checkbox"/> Intervention/Remediation <input type="checkbox"/> Projects <input type="checkbox"/> Other Suggested Activities:	<a href="#">Health and Nutrition</a>
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