

# Agriculture at Montague Township School

## Table of Contents

Agriculture at Montague Township School	1
Introduction Agriculture at Montague Township School	2
21st Century Skills & Themes (Career Ready Practices, 9.1: Financial Literacy and 9.3 Career Awareness	2
8.1 & 8.2 Technology Standards	2
Modifications and Accommodations for IEP, 504, At Risk, G&T and LEP Students	3
September	4
October	6
November	8
December	10
January	12
February	14
March	16
April	18
May	19
June	21

## Introduction Agriculture at Montague Township School

The agriculture curriculum will cover information from all aspects of the National Council for Agricultural Education's Agriculture, Food and Natural Resources (AFNR) Career Clusters. The career cluster skills include agribusiness systems (ABS), animal systems (AS), biotechnology systems (BS), environmental service systems (ESS), food products and processing systems (FPP), natural resource systems (NRS), plant systems (PS) and power, structural and technical systems (PST). There are overall themes of career readiness, natural resource stewardship, technology, critical thinking, creativity, teamwork and leadership that will be implemented through hands-on activities. 5th-8th grade students will gain valuable technical skills while exploring possible careers in the growing fields of natural resource management and agriculture.

## 21st Century Skills & Themes (Career Ready Practices, 9.1: Financial Literacy and 9.3 Career Awareness)

21st Century Skills & Theme concepts are embedded in each unit of the agricultural curriculum. Montague School has a deep rooted pedagogy in connections and relationships. Each of the 21st Century Skills and Themes Standards are built into the teaching and learning process for each unit of instruction as connections and relationships are available. The elements of the 21st Century Skills and Themes emphasize the growing need to focus on skills that prepare students to successfully compete in a global environment by focusing on: learning and innovation skills; information, media and technology skills; and life and career skills. [5 - 8 AG CRP, Career Awareness and Preparation Standards](#)

## 8.1 & 8.2 Technology Standards

8.1 & 8.2 Technology Standards and concepts are embedded in each unit of the curriculum. This school's philosophy of a pedagogy of connections and relationships results in the integration of the technology standards throughout instruction and are built into the teaching and learning process for each unit of instruction as connections and relationships are available. The elements of the Technology Standards emphasize the growing need to focus on skills that prepare students for this "ever-changing digital world where citizenship is being re-imagined, our students must be able to harness the power of technology to live, solve problems and learn in college, on the job and throughout their lives. Enabled with digital and civic citizenship skills, students are empowered to be

responsible members of today's diverse global society. Readiness in this century demands that students actively engage in critical thinking, communication, collaboration, and creativity. Technology empowers students with real-world data, tools, experts and global outreach to actively engage in solving meaningful problems in all areas of their lives. The power of technology discretely supports all curricular areas and multiple levels of mastery for all students.” NJDOE [https://www.nj.gov/education/aps/cccs/tech/Montague's 5 - 8 Ag Curriculum Technology 8.1 and 8.2](https://www.nj.gov/education/aps/cccs/tech/Montague's%205%20-%208%20Ag%20Curriculum%20Technology%208.1%20and%208.2)

### Modifications and Accommodations for IEP, 504, At Risk, G&T and LEP Students

Modifications and accommodations listed in curriculum guides are suggested for all types of learners. Specific student accommodations and modifications listed in an IEP will take priority for each individual student instruction. [MTS Modifications and Accommodations](#)

# September

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzo/yevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzo/yevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>Intro to Rules, Getting to Know You, Overview of the Year</p> <p>What it means to be a good citizen, stewardship, Introduction to FFA-constitution and bylaws</p>	<p>Introduction to Agriculture-What is agriculture? Where can agriculture be found?</p> <p>Farm to Table Chain Students will brainstorm and then research many paths of "Farm to Table".</p> <ul style="list-style-type: none"> <li>● Local</li> <li>● Regional</li> <li>● International</li> </ul> <p>How is Agriculture involved in everyday life? Is Agriculture important?</p> <p>Products and Byproducts, Careers and Jobs in the field of Agriculture</p>	<p>History of Agriculture</p> <p>Agriculture Today in the U.S and Abroad</p> <ul style="list-style-type: none"> <li>● Students will research policies around food products and processing in the U.S. and around the world.</li> <li>● Do cultural practices affect food production, distribution and processing?</li> </ul>	<p>Food Science</p> <p>Grocery Store Problem Solving Students will use math to solve problems about the cost of food.</p> <ul style="list-style-type: none"> <li>● Grocery ads</li> <li>● Nutrition and Cost of Meals</li> <li>● Diets around the world</li> </ul> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=18&amp;author_state=0&amp;grade=3,6">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=18&amp;author_state=0&amp;grade=3,6</a></p> <p>Activities from MyCAERT (ALSF: Advanced Life Sciences-Food)</p> <ul style="list-style-type: none"> <li>● Sanitation, Spoilage and Storage</li> <li>● Nutritional Balance</li> <li>● Food Ingredients</li> <li>● Food Prep</li> <li>● Buying Food</li> </ul>	<p>CRP</p> <p>CS.01</p> <p>CS.02</p> <p>CS.04</p> <p>CS.05</p> <p>FPP.01</p> <p>FPP.03</p> <p>FPP.04</p>

**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Writing Assignments, Projects, Portfolio Updates, Blog Posts

Students will be able to articulate what is agriculture and how it impacts our lives.

**Materials and Resources:** FFA- constitution and bylaws, Farm to Table, Activities from MyCAERT (ALSF: Advanced Life Sciences-Food)

Powerpoint, Chromebooks, Grocery Ads

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# October

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>Trout Reproduction</p> <ul style="list-style-type: none"> <li>- Flip Book</li> <li>- Hatchery Visit?</li> </ul> <p>Trout Environment</p> <ul style="list-style-type: none"> <li>• Test temperature, dissolved oxygen, pH, nitrates, GH, KH, Ammonia, etc. to ensure safe levels for trout.</li> <li>• Learn about trout natural habitats and create a river habitat to decorate our fish tanks.</li> </ul> <p>Tank Set Up</p>	<p>Macroinvertebrate Study</p> <ul style="list-style-type: none"> <li>• Students will prepare and set out onion bags filled with leaves into a stream to collect macroinvertebrate species. <a href="https://leafpacknetwork.org">https://leafpacknetwork.org</a></li> <li>• Once collected, they will observe and learn to identify the species, especially bioindicator species (EPT taxa). <a href="https://www.macroinvertebrates.org">https://www.macroinvertebrates.org</a></li> <li>• We will also weigh leaves before and after to see how much was consumed.</li> <li>• We will collect data, make graph</li> </ul>	<p>Water Chemistry</p> <ul style="list-style-type: none"> <li>• Chemical Water Testing of Different Streams around Montague</li> </ul> <p>Feed Calculations &amp; Daily Feeding</p> <p>Population Dynamics</p> <ul style="list-style-type: none"> <li>• Types of Populations</li> <li>• Influences on Population</li> </ul> <p>Carrying Capacity Introduction to carrying capacity</p> <ul style="list-style-type: none"> <li>• Use graphs to look at carrying capacity and complete examples.</li> </ul>	<p>Natural Resources and Wildlife Management</p> <p>Natural Resource Management Case Studies</p> <ul style="list-style-type: none"> <li>• Students will be given actual natural resource issues and will work together to solve them. Then, will be shown what was actually done. They will then determine how successful the solution was.</li> </ul> <p>Natural Resource Management and Public Relations</p> <ul style="list-style-type: none"> <li>• Students will come up with ways to get people to care about the environment and trout. How can we communicate information to the public using different</li> </ul>	<p>ESS.01 ESS.03 AS.03 AS.07 AS.08 NRS.02</p>

				<p>media outlets?</p> <ul style="list-style-type: none"> <li>● Record your own natural resource informational video, radio broadcast or social media post</li> <li>● Compare outlets--which is the most effective?</li> </ul>	
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**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Projects, Portfolio Updates, Blog Posts

**Materials and Resources:** Trout, water source such as stream or lake, natural resources cases

Construction Paper, Markers, Colored Pencils, Crayons, Water Testing Kit, Tanks, Trout, Food, Onion Bags, Dissecting Microscopes, Powerpoint, Chromebooks, Google Sheets, Scales, Graph Paper, Calculators

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# November

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzolyevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzolyevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>Intro to Plants</p> <p>What do plants need to survive?</p> <p>Plant Reproduction</p> <p>Pollination</p> <ul style="list-style-type: none"> <li>Students will learn about pollination by participating in a game using post-its and beach balls.</li> </ul> <p><a href="https://www.teachers-going-green.com/literature_135954/Beach_Ball_Bee_P...">LESSON: Beach Ball Bee Pollination Game - Teachers Going ...www.teachers-going-green.com &gt; literature_135954 &gt; Beach Ball Bee P...</a></p> <ul style="list-style-type: none"> <li>Students will learn about negative impacts on pollinators and brainstorm ideas on what we could do if pollinators disappear.                             <ul style="list-style-type: none"> <li>Calculating the cost of</li> </ul> </li> </ul>	<p>Plant Vasculature</p> <ul style="list-style-type: none"> <li>Students will see how plant vasculature works by placing white carnations in food dye and water.</li> <li>Students will study cross sections of stems to see xylem, phloem and cambium.</li> <li>Students will learn about capillary action and watch this demonstration: <a href="https://www.youtube.com/watch?v=w_tc8tlEoBs">https://www.youtube.com/watch?v=w_tc8tlEoBs</a></li> </ul> <p>Seeds</p> <ul style="list-style-type: none"> <li>Students will dissect seeds to learn about the different parts.</li> <li>What do seeds need to sprout? Students will learn how to wake up dormant seeds</li> </ul>	<p>Soil</p> <p>Managing Soil for Healthy Plants</p> <ul style="list-style-type: none"> <li>Students will look at drainage and substrate size/type.</li> <li>Students will conduct experiments with soil nutrients (Nitrogen, Phosphorous, Potassium) and fertilizers. They will learn how to calculate amounts.</li> <li>Students will learn about buffers and how to adjust the pH of soils. They will experiment to find the ideal pH for plant growth.</li> <li>Snow Pack Experiment: How does snowpack affect soil? How might climate change affect</li> </ul>	<p>Inside a Plant Cell</p> <ul style="list-style-type: none"> <li>Students will make their own plant cell from craft materials, learning to identify organelles.</li> <li>Dissect different parts of a plant cell and look at them using microscopes.</li> </ul> <p>Plant Leaves</p> <ul style="list-style-type: none"> <li>Students will learn about transpiration and conduct a transpiration experiment where they weigh plants before and after being in the sun. <a href="https://www.education.com/science-fair/article/how-much-water-plants-lose-air/">https://www.education.com/science-fair/article/how-much-water-plants-lose-air/</a></li> <li>Look at stomata of</li> </ul>	<p>PS.01 PS.02 PS.03</p>



	<p>pollination.</p> <ul style="list-style-type: none"> <li>○ Drones for Pollination</li> <li>● Students can raise pollinating butterflies to release in our garden.</li> </ul>	<p>and discover what they need to sprout.</p>	<p>this?</p>	<p>leaves using the microscope.</p> <ul style="list-style-type: none"> <li>● Photosynthesis and Cellular Respiration Activity-- Do plants breathe?</li> </ul> <p>Plant Light Experiments</p> <ul style="list-style-type: none"> <li>● Use different color cellophane to determine what wavelength of light grows the best plants.</li> <li>● Also experiment with intensity and duration of light.</li> <li>● What is actually used in commercial greenhouses?</li> </ul>	
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**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Projects, Portfolio Updates, Blog Posts

**Materials and Resources:** greenhouse, seeds, soil

Powerpoint, Chromebooks, Post-its, Beachballs, White Carnations, Food Dye, Microscopes, Seeds, Craft Materials (model magic, poster board, markers, crayons, colored pencils, etc.), plants

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# December

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolvvp03gn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolvvp03gn/file/294160068843</a>
5th 6th 7th 8th	<p>How do people use and impact natural resources?</p> <ul style="list-style-type: none"> <li>● Causes of Extinction-Overharvesting</li> <li>● Overfishing Activity               <ul style="list-style-type: none"> <li>○ Students will use popcorn as “fish” and harvest with their groups to see how overfishing impacts the environment and people.</li> </ul> </li> </ul> <p><a href="http://ma-marine-ed.org/wp-content/uploads/2014/10/sustainability_activity.pdf">http://ma-marine-ed.org/wp-content/uploads/2014/10/sustainability_activity.pdf</a></p> <p>Natural Resources and Technology Students will investigate how technology and society have changed our use of natural resources.</p> <ul style="list-style-type: none"> <li>● Life before and after</li> </ul>	<p>Hydroponics and Aquaponics</p> <ul style="list-style-type: none"> <li>● Students will create and monitor these systems to learn about these new techniques.</li> </ul> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&amp;search_term_lp=aquaponics">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&amp;search_term_lp=aquaponics</a></p> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&amp;search_term_lp=aquaponics">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&amp;search_term_lp=aquaponics</a></p>	<p>Hydroponics and Aquaponics</p> <ul style="list-style-type: none"> <li>● Students will create and monitor these systems to learn about these new techniques.</li> </ul> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&amp;search_term_lp=aquaponics">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&amp;search_term_lp=aquaponics</a></p> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&amp;search_term_lp=aquaponics">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&amp;search_term_lp=aquaponics</a></p>	No School	ESS.04 NRS.02 PS.03

	<p>the industrial revolution</p> <ul style="list-style-type: none"> <li>• A snapshot of the past- Native American Agriculture</li> <li>• Sustainable Island Agriculture</li> </ul>				
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**Assessments: Summative, Formative and Benchmarks**  
**Formative:** Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer  
**Benchmarks:** Study Island Data, Pre Assessments, quizzes, unit tests  
**Summative:** Projects, Google Slides Presentations, Portfolio Updates, Blog Posts

**Materials and Resources: Hydroponics and Aquaponics**  
 Powerpoint, Popcorn, Chromebooks, Hydroponics Set Up, Aquaponics Set Up

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# January

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0sptqjvhddzolyevp03qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0sptqjvhddzolyevp03qn/file/294160068843</a>
5th 6th 7th 8th	<p>Intro to Animal Science</p> <p>Activities from MyCAERT (ALSA: Advanced Life Science- Animal)</p> <ul style="list-style-type: none"> <li>● Classifying Animals</li> <li>● Exploring the Livestock Industry</li> <li>● Exploring Dairy Animals and Dairy Products</li> <li>● Exploring Companion Animals</li> <li>● Exploring Poultry and Poultry Products</li> </ul>	<p>Intro to Chickens</p> <p>Past and Present—Chicken Farming</p> <ul style="list-style-type: none"> <li>● Research how chicken farming began, how most popular breeds were determined over time, how the industry works now.</li> <li>● Compare and contrast techniques from the past and present.</li> <li>● Make a timeline.</li> </ul> <p>Chicken Characteristics</p> <ul style="list-style-type: none"> <li>● Students choose what kind of chickens to get based on characteristics such as eggs, plumage, etc.</li> </ul>	<p>Intro to Genetics</p> <p>Strawberry DNA Extraction</p> <ul style="list-style-type: none"> <li>● Learn about DNA and DNA extraction. <a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=381">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=381</a></li> </ul> <p>Gregor Mendel</p> <ul style="list-style-type: none"> <li>● Intro to Punnett Squares PomPom activity. <a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=130">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=130</a></li> </ul> <p>Build-a-Cow Selective Breeding <a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=729&amp;grade=3.6&amp;author_state=0">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=729&amp;grade=3.6&amp;author_state=0</a></p> <p>Chicken Genetics and Breeding</p>	<p>Chicken Eggs</p> <p>What do chickens need to survive?</p> <p>Incubator Set Up</p> <p>Chicken Life Cycle</p> <p>Egg Dissection</p>	<p>ABS.01 AS.04 AS.06 BS.01 BS.02 BS.03</p>

**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Projects, Portfolio Updates, Blog Posts

**Materials and Resources:** MyCAERT (ALSA: Advanced Life Science- Animal), Strawberry DNA, chickens

Powerpoint, Chromebooks, Google Slides, Paper, Markers, Strawberries, Pom Poms, Incubator Set-up, Chicken eggs

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

## February

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>What do chickens need to survive?</p> <p>Chicken Habitat Webquest Square Footage Nesting Boxes Ventilation Outside Run Convenience Etc.</p>	<p>Hatching Chickens</p> <p>Feed for Different Life Stages</p> <p>Calculating Feed</p> <p>Caring for Chickens Basics: (Warm up activity each class: change water, give feed, clean bedding, etc.)</p>	<p><b>Chicken Anatomy</b></p>	<p>Chick Identification</p> <ul style="list-style-type: none"> <li>● What breeds do we have?</li> <li>● How many of each breed do we have left?</li> </ul> <p>Percentages</p> <ul style="list-style-type: none"> <li>● Percent Loss</li> <li>● Prices</li> </ul> <p>Chicken Vet</p> <ul style="list-style-type: none"> <li>● Learn to identify diseases that chickens may carry and illnesses they may have.</li> <li>● Students will visit fake chickens with “symptoms” and diagnose them and suggest treatment.</li> </ul>	<p>ABS.03 AS.03 AS.07 PST.04</p>

**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Webquest, Projects, Lab Practical, Portfolio Updates, Blog Posts

**Materials and Resources:** PowerPoint, Google Slides, Chromebooks, Calculators, Chickens, Feed

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

## March

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolvevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolvevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>Intro to Ag Mechanics</p> <p>Get Ideas from:  <a href="https://www.cteonline.org/curriculum/outline/intro-to-ag-mechanics-cte-online-model/KVEEnf">https://www.cteonline.org/curriculum/outline/intro-to-ag-mechanics-cte-online-model/KVEEnf</a>  <a href="https://ag-safety.extension.org/wp-content/uploads/2019/05/PST-Teacher-Resource-Guide-v8-Final-Web-Download-File.pdf">https://ag-safety.extension.org/wp-content/uploads/2019/05/PST-Teacher-Resource-Guide-v8-Final-Web-Download-File.pdf</a></p> <p>MyCAERT (AGL Middle School Library G: Agricultural Mechanics)</p> <ul style="list-style-type: none"> <li>● Safety</li> <li>● Basic Carpentry</li> <li>● Basic Electricity</li> <li>● Machinery and Equipment</li> <li>● Precision Farming</li> </ul> <p>*Chicken Necessity Specific</p>	<p>Structures Building Chicken Coops</p> <p>Design Chicken Coop</p> <ul style="list-style-type: none"> <li>● Students Design a chicken coop and run using help from their habitat webquest.</li> <li>● Calculate Square footage, space and necessities (# of nesting boxes, roost space, etc.)</li> <li>● Use knowledge of basic carpentry to online “shop” for materials. Calculate lumber required etc.</li> </ul>	<p>Exploring our on-campus chicken coop.</p> <ul style="list-style-type: none"> <li>● What materials were used to build it?</li> <li>● How could it be improved?</li> <li>● Would you add anything to your chicken coop design now that you’ve seen a real chicken coop?</li> <li>● Reflect on designs and Redesign</li> </ul>	<p>Build a model of a chicken coop design out of popsicle sticks.</p>	<p>PST.01 PST.02 PST.03 PST.04</p>

**Assessments: Summative, Formative and Benchmarks**

Formative: Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer



Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Projects, Portfolio Updates, Blog Posts

**Materials and Resources:** MyCAERT (AGL Middle School Library G: Agricultural Mechanics), Graph Paper, Calculators, Chromebooks, Chicken Coop, Popsicle Sticks, Glue, Poster Paper, Markers, Crayons, Colored Pencils

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# April

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3gn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3gn/file/294160068843</a>
5th 6th 7th 8th	Moving the Chicks to the Coop  Different Types of Chicken Farming (Free Range, Chicken Tractor, etc.) -Using and moving the chicken tractor.	Showing Chickens <ul style="list-style-type: none"> <li>• Breed, Class, Category</li> <li>• Attributes they are looking for</li> </ul> Photographing Chickens	No School	Planting- Horticulture	AS PS
<b>Assessments: Summative, Formative and Benchmarks</b> <u>Formative:</u> Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer <u>Benchmarks:</u> Study Island Data, Pre Assessments, quizzes, unit tests <u>Summative:</u> Projects, Google Slide Presentations, Portfolio Updates, Blog Posts					
<b>Materials and Resources:</b> Chickens, Chicken Tractors, Chromebooks, Cameras, Plants					
<b>Interdisciplinary Connections:</b> English Language Arts, Science, Math, Social Studies, 21st Century Career and Life					

# May

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzolyevp03qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttgivhddzolyevp03qn/file/294160068843</a>
5th 6th 7th 8th	<p>Exploring Flowers</p> <ul style="list-style-type: none"> <li>Students will look at different types of flowers to learn about complete, incomplete, perfect and imperfect flowers.</li> </ul> <p>Design Your Own Floral Arrangements</p> <ul style="list-style-type: none"> <li>Students will design floral arrangements using flowers that we grow.</li> <li>They will learn about design principles and artistic impression</li> <li>Learn to use computer design programs to plan (landscaping, florist tools, drawing programs)</li> </ul>	<p>Landscape the School Contest</p> <p>Students will design the landscaping plan for the school given certain plants w/ their characteristics and a budget.</p> <ul style="list-style-type: none"> <li>Distinguish between floral plants, landscape plants, and house plants</li> <li>Learn about using plant adaptations for our benefit—heat tolerance, shade tolerance, floriculture, etc.</li> </ul>	<p>Measuring Plant Biodiversity</p> <ul style="list-style-type: none"> <li>Students will learn how to collect forest data on biodiversity by using transects.</li> <li>They will identify plant species using both field guides and apps such as iNaturalist.</li> </ul>	<p>Plant Collection</p> <ul style="list-style-type: none"> <li>Students will learn to identify plants using multiple resources (field guides and apps).</li> <li>They will collect some plants and learn to make pressings, labeling them with scientific names.</li> </ul>	PS.02 PS.04 ESS.01 ESS.03 ESS.05
<p><b>Assessments: Summative, Formative and Benchmarks</b></p> <p><u>Formative:</u> Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer</p>					

Benchmarks: Study Island Data, Pre Assessments, quizzes, unit tests

Summative: Projects, Portfolio Updates, Blog Posts

**Materials and Resources:** flowers, plants, Flower Arrangement Materials, Chromebooks, Graph Paper, Paper, Markers, Crayons, Colored Pencils, Transect Material (meter tape, pvc pipe), Field Guides, Tablet with iNaturalist App, Plants, Poster Paper, Field Notebooks

**Interdisciplinary Connections:** English Language Arts, Science, Math, Social Studies, 21st Century Career and Life

# June

Pacing Week	1	2	3	4	Standards <a href="https://ffa.app.box.com/s/n6jfkamfof0spttgjvhddzolyevpo3qn/file/294160068843">https://ffa.app.box.com/s/n6jfkamfof0spttgjvhddzolyevpo3qn/file/294160068843</a>
5th 6th 7th 8th	<p>MyCAERT (AGL Middle School Library E: Agribusiness)</p> <ul style="list-style-type: none"> <li>● Personal Finances</li> <li>● Accounting: Record Keeping</li> <li>● Economics</li> <li>● Marketing Agricultural Products</li> </ul> <p>Run your own Agribusiness! Work in groups to develop your own agribusiness idea—how would you run your business? Are there exemplar businesses?</p> <ul style="list-style-type: none"> <li>● Which plot of land would you buy? What will you grow? (Calculate acreage, seeds/other supplies you need, etc.)</li> <li>● Who would you</li> </ul>	<p>Plant Sale Students will grow succulents or flowers to sell. They will learn techniques for storage, shipping, packaging, handling.</p> <p>Develop Packaging for Fruit</p> <ul style="list-style-type: none"> <li>● Design packaging for fruit that will keep it safe while also being cost-effective.</li> </ul> <p><a href="https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=288&amp;author_state=0&amp;grade=3.6">https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=288&amp;author_state=0&amp;grade=3.6</a></p>	<p>Nature Walk Students will learn what an ecosystem is and we will explore the ecosystem at our school. We will take notes during our walk on what we see and students will determine what ecosystem we have.</p> <p>Food Webs Students will learn about the interdependence of organisms.</p> <ul style="list-style-type: none"> <li>● Excerpts from Sand County Almanac</li> <li>● Food Webs--Students choose an animal and try to come up with a food web for it</li> <li>● Connections between food webs</li> </ul>	<p>Identifying Wildlife</p> <ul style="list-style-type: none"> <li>● Who made this poop? Learning to identify animals using scat.</li> <li>● Bird Calls--Learning to identify common birds by listening to their calls.</li> <li>● Tracks--Learning to identify using tracks.</li> <li>● Teeth and Skulls <a href="https://ag.purdue.edu/extension/nature/pages/lesson.aspx">https://ag.purdue.edu/extension/nature/pages/lesson.aspx</a></li> </ul>	<p>ABS.01 ABS.02 ABS.03 ABS.04 ABS.05 PS.03 NRS.01 FPP.03</p>

	hire? Choose from given job applicants, etc.		“allochthonous and autochthonous” <ul style="list-style-type: none"> <li>• Ecologies Card Game</li> </ul>		
<b>Assessments: Summative, Formative and Benchmarks</b> <u>Formative:</u> Exit and Entrance Tickets, Observations, Journals, Pair and Share, Self Evaluations, Discussions, Group Work, Question and Answer <u>Benchmarks:</u> Study Island Data, Pre Assessments, quizzes, unit tests <u>Summative:</u> Projects, Labs, Portfolio Updates, Blog Posts					
<b>Materials and Resources:</b> Chromebooks, Calculators, Succulents, Packing Materials (cardboard, Styrofoam, bubble wrap, tape, packing peanuts, etc.), Clipboards, Animal Skulls, Field Notebooks, Ecologies Card Game					
<b>Interdisciplinary Connections:</b> English Language Arts, Science, Math, Social Studies, 21st Century Career and Life					