Agriculture at Montague Township School

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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

September

Pacing Week	1	2	3	4	Standards https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Intro to Rules, Getting to Know You, Overview of the Year What it means to be a good citizen, stewardship, Introduction to FFA-constitution and bylaws	Introduction to Agriculture- What is agriculture? Where can agriculture be found? Farm to Table Chain Students will brainstorm and then research many paths of "Farm to Table". ● Local ● Regional ● International How is Agriculture involved in everyday life? Is Agriculture important? Products and Byproducts, Careers and Jobs in the field of Agriculture	History of Agriculture Agriculture Today in the U.S and Abroad ● Students will research policies around food products and processing in the U.S. and around the world. ● Do cultural practices affect food production, distribution and processing?	Food Science Grocery Store Problem Solving Students will use math to solve problems about the cost of food. ● Grocery ads ● Nutrition and Cost of Meals ● Diets around the world https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=18&author_state=0&grade=3,6 Activities from MyCAERT (ALSF: Advanced Life Sciences-Food) ● Sanitation, Spoilage and Storage ● Nutritional Balance ● Food Ingredients ● Food Prep ● Buying Food	CRP CS.01 CS.02 CS.04 CS.05 FPP.01 FPP.03 FPP.04
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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Trout Reproduction - Flip Book - Hatchery Visit? Trout Environment ● Test temperature, dissolved oxygen, pH, nitrates, GH, KH, Ammonia, etc. to ensure safe levels for trout. ● Learn about trout natural habitats and create a river habitat to decorate our fish tanks. Tank Set Up	Macroinvertebrate Study ● Students will prepare and set out onion bags filled with leaves into a stream to collect macroinvertebrate species. https://leafpacknetwork.org ● Once collected, they will observe and learn to identify the species, especially bioindicator species (EPT taxa). https://www.macroinvertebrates.org ● We will also weigh leaves before and after to see how much was consumed. ● We will collect data, make graph	Water Chemistry ● Chemical Water Testing of Different Streams around Montague Feed Calculations & Daily Feeding Population Dynamics ● Types of Populations ● Influences on Population Carrying Capacity Introduction to carrying capacity ● Use graphs to look at carrying capacity and complete examples.	Natural Resources and Wildlife Management Natural Resource Management Case Studies ● 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. Natural Resource Management and Public Relations ● 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 media outlets? ● Record your own	ESS.01 ESS.03 AS.03 AS.07 AS.08 NRS.02

				natural resource informational video, radio broadcast or social media post ● Compare outlets--which is the most effective?	

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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Intro to Plants What do plants need to survive? Plant Reproduction Pollination ● Students will learn about pollination by participating in a game using post-its and beach balls. LESSON: Beach Ball Bee Pollination Game - Teachers Going ...www.teachers-going-green.com › _literature_135954 › Beach_Ball_Bee_P… ● Students will learn about negative impacts on pollinators and brainstorm ideas on what we could do if pollinators disappear. ○ Calculating the cost of	Plant Vasculature ● Students will see how plant vasculature works by placing white carnations in food dye and water. ● Students will study cross sections of stems to see xylem, phloem and cambium. ● Students will learn about capillary action and watch this demonstration: https://www.youtube.com/watch?v=w_tc8tlEoBs Seeds ● Students will dissect seeds to learn about the different parts. ● What do seeds need to sprout? Students will learn how to wake up dormant seeds and discover what they need	Soil Managing Soil for Healthy Plants ● Students will look at drainage and substrate size/type. ● Students will conduct experiments with soil nutrients (Nitrogen, Phosphorous, Potassium) and fertilizers. They will learn how to calculate amounts. ● Students will learn about buffers and how to adjust the pH of soils. They will experiment to find the ideal pH for plant growth. ● Snow Pack Experiment: How does snowpack affect soil? How might climate change affect this?	Inside a Plant Cell ● Students will make their own plant cell from craft materials, learning to identify organelles. ● Dissect different parts of a plant cell and look at them using microscopes. Plant Leaves ● Students will learn about transpiration and conduct a transpiration experiment where they weigh plants before and after being in the sun. https://www.education.com/science-fair/article/how-much-water-plants-lose-air/ ● Look at stomata of leaves using the microscope. ● Photosynthesis and	PS.01 PS.02 PS.03

	pollination. ○ Drones for Pollination ● Students can raise pollinating butterflies to release in our garden.	to sprout.		Cellular Respiration Activity-- Do plants breathe? Plant Light Experiments ● Use different color cellophane to determine what wavelength of light grows the best plants. ● Also experiment with intensity and duration of light. ● What is actually used in commercial greenhouses?	

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 https://ffa.app.box.com/s/n6jfkamfof0sptqjvhddzolyevpo3qn/file/294160068843

5th 6th 7th 8th	How do people use and impact natural resources? ● Causes of Extinction- Overharvesting ● Overfishing Activity ○ Students will use popcorn as "fish" and harvest with their groups to see how overfishing impacts the environment and people. http://ma-marine-ed.org/wp-content/uploads/2014/10/sustainability_activity.pdf Natural Resources and Technology Students will investigate how technology and society have changed our use of natural resources. ● Life before and after the industrial revolution ● A snapshot of the past- Native American Agriculture ● Sustainable Island Agriculture	Hydroponics and Aquaponics ● Students will create and monitor these systems to learn about these new techniques. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&search_term_lp=aquaponics https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&search_term_lp=aquaponics	Hydroponics and Aquaponics ● Students will create and monitor these systems to learn about these new techniques. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=638&search_term_lp=aquaponics https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=632&search_term_lp=aquaponics	No School	ESS.04 NRS.02 PS.03
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 https://ffa.app.box.com/s/n6jfkamfof0sptqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Intro to Animal Science Activities from MyCAERT (ALSA: Advanced Life Science- Animal) ● Classifying Animals ● Exploring the Livestock Industry ● Exploring Dairy Animals and Dairy Products ● Exploring Companion Animals ● Exploring Poultry and Poultry Products	Intro to Chickens Past and Present—Chicken Farming ● Research how chicken farming began, how most popular breeds were determined over time, how the industry works now. ● Compare and contrast techniques from the past and present. ● Make a timeline. Chicken Characteristics ● Students choose what kind of chickens to get based on characteristics such as eggs, plumage, etc.	Intro to Genetics Strawberry DNA Extraction ● Learn about DNA and DNA extraction. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=381 Gregor Mendel ● Intro to Punnett Squares PomPom activity. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=130 . Build-a-Cow Selective Breeding https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=729&grade=3,6&author_state=0 Chicken Genetics and Breeding	Chicken Eggs What do chickens need to survive? Incubator Set Up Chicken Life Cycle Egg Dissection	ABS.01 AS.04 AS.06 BS.01 BS.02 BS.03
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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	What do chickens need to survive? Chicken Habitat Webquest Square Footage Nesting Boxes Ventilation Outside Run Convenience Etc.	Hatching Chickens Feed for Different Life Stages Calculating Feed Caring for Chickens Basics: (Warm up activity each class: change water, give feed, clean bedding, etc.)	**Chicken Anatomy**	Chick Identification ● What breeds do we have? ● How many of each breed do we have left? Percentages ● Percent Loss ● Prices Chicken Vet ● Learn to identify diseases that chickens may carry and illnesses they may have. ● Students will visit fake chickens with "symptoms" and diagnose them and suggest treatment.	ABS.03 AS.03 AS.07 PST.04

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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Intro to Ag Mechanics Get Ideas from: https://www.cteonline.org/curriculum/outline/intro-to-ag-mechanics-cte-online-model/KVEEnf https://ag-safety.extension.org/wp-content/uploads/2019/05/PST-Teacher-Resource-Guide-v8-Final-Web-Download-File.pdf MyCAERT (AGL Middle School Library G: Agricultural Mechanics) ● Safety ● Basic Carpentry ● Basic Electricity ● Machinery and Equipment ● Precision Farming *Chicken Necessity Specific	Structures Building Chicken Coops Design Chicken Coop ● Students Design a chicken coop and run using help from their habitat webquest. ● Calculate Square footage, space and necessities (# of nesting boxes, roost space, etc.) ● Use knowledge of basic carpentry to online “shop” for materials. Calculate lumber required etc.	Exploring our on-campus chicken coop. ● What materials were used to build it? ● How could it be improved? ● Would you add anything to your chicken coop design now that you’ve seen a real chicken coop? ● Reflect on designs and Redesign	Build a model of a chicken coop design out of popsicle sticks.	PST.01 PST.02 PST.03 PST.04
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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
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 ● Breed, Class, Category ● Attributes they are looking for Photographing Chickens	No School	Planting- Horticulture	AS PS

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 Slide Presentations, Portfolio Updates, Blog Posts

Materials and Resources: Chickens, Chicken Tractors, Chromebooks, Cameras, Plants

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

May

Pacing Week	1	2	3	4	Standards https://ffa.app.box.com/s/n6jfkamfof0sptqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	Exploring Flowers ● Students will look at different types of flowers to learn about complete, incomplete, perfect and imperfect flowers. Design Your Own Floral Arrangements ● Students will design floral arrangements using flowers that we grow. ● They will learn about design principles and artistic impression ● Learn to use computer design programs to plan (landscaping, florist tools, drawing programs)	Landscape the School Contest Students will design the landscaping plan for the school given certain plants w/ their characteristics and a budget. ● Distinguish between floral plants, landscape plants, and house plants ● Learn about using plant adaptations for our benefit—heat tolerance, shade tolerance, floriculture, etc.	Measuring Plant Biodiversity ● Students will learn how to collect forest data on biodiversity by using transects. ● They will identify plant species using both field guides and apps such as iNaturalist.	Plant Collection ● Students will learn to identify plants using multiple resources (field guides and apps). ● They will collect some plants and learn to make pressings, labeling them with scientific names.	PS.02 PS.04 ESS.01 ESS.03 ESS.05

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: 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 https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
5th 6th 7th 8th	MyCAERT (AGL Middle School Library E: Agribusiness) • Personal Finances • Accounting: Record Keeping • Economics • Marketing Agricultural Products Run your own Agribusiness! Work in groups to develop your own agribusiness idea—how would you run your business? Are there exemplar businesses? • Which plot of land would you buy? What will you grow? (Calculate acreage, seeds/other supplies you need, etc.) • Who would you hire? Choose from given job applicants, etc.	Plant Sale Students will grow succulents or flowers to sell. They will learn techniques for storage, shipping, packaging, handling. Develop Packaging for Fruit • Design packaging for fruit that will keep it safe while also being cost-effective. https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=288&author_state=0&grade=3,6	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. Food Webs Students will learn about the interdependence of organisms. • Excerpts from Sand County Almanac • Food Webs--Students choose an animal and try to come up with a food web for it • Connections between food webs “allochthonous and autochthonous” • Ecologies Card	Identifying Wildlife • Who made this poop? Learning to identify animals using scat. • Bird Calls--Learning to identify common birds by listening to their calls. • Tracks--Learning to identify using tracks. • Teeth and Skulls https://ag.purdue.edu/extension/nature/pages/lesson.aspx	ABS.01 ABS.02 ABS.03 ABS.04 ABS.05 PS.03 NRS.01 FPP.03

			Game		

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, Labs, Portfolio Updates, Blog Posts

Materials and Resources: Chromebooks, Calculators, Succulents, Packing Materials (cardboard, Styrofoam, bubble wrap, tape, packing peanuts, etc.), Clipboards, Animal Skulls, Field Notebooks, Ecologies Card Game

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

Food Science

Units	Introduction to Food Science- What is It?	Food Safety	Food ID & Food Quality	Food Chemistry	Nutrition	Developing Food Products	Weights and Measurements	Food Preservation and Packaging	Global vs. US, Cultures Around the World	Standards https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/2941600688 43
	Mix It Up! Food Scientist and Food Scientist for a Day https://agclassroom.org/matrix/lesson/287/ and https://agclassroom.org/matrix/lesson/616/	Basic Food Handlers Safety (http://365trainingacademy.com/new_jersey_food_safety_handler_manager_training_certification.html), Classroom/Lab Safety Food Safety Modules https://agclassroom.org/matrix/lesson/429/ And https://agclass	Identifying Common Fruits and Vegetables, NJ FFA Fruit and Vegetable ID Competition Practice (https://nj.gov/agriculture/ag_ed/ffa/activity/7.002.pdf) Jersey Fresh Grown Foods and Facts (https://findjerseyfresh.com/JerseyFresh/users), Food Quality (taste, appearance, grading, etc.),	Basic Food Constituents (Carbohydrates, Proteins, Fats, Vitamins, Minerals), Basic Chemical Make-up of Food, Common Chemical Reactions (Physical vs Chemical Reactions in Cooking/Baking), How chemicals affect nutrition	MyPlate (https://www.myplate.gov/), Importance of Healthy Eating, Reading Nutrition Labels	How Food Products are Developed taking into account creativity, economics and regulations, Determining customer preferences using techniques such as blind taste-testing	English vs Metric Units, Converting between Units, Weighing and Measuring Tools and Techniques, Following Recipes	Packaging (considering shelf life, shrinkage, appearance, weight, etc.), Packaging Options, Sales/Marketing, Food Preservation Techniques	Environmental Impact (GMO's, pesticide use, by-products, etc.), Pathways of Food (Farm to Fork), Food Insecurity and Inequality, Celebrations and Food, Food and Cultural Identity	FPP.01 FPP.02 FPP.03 FPP.04

		room.org/matrix/lesson/431/								

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, Labs, Portfolio Updates, Blog Posts

Materials and Resources: Chromebooks, Food, Kitchen Equipment, FFA CDE Handbooks for Fruit and Vegetable Identification and Milk Quality and Products, MyPlate

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

Animal Science

Units	Introduction to Animal Science	Exploring the Livestock Industry	Exploring the Poultry Industry	Dairy Animals and Dairy Products	Companion Animals	Veterinary Science-	Standards https://ffa.app.box.com/s/n6jfkamfof0spttqjvhddzolyevpo3qn/file/294160068843
	Classifying Animals- Uses of animals in agriculture, terms for livestock animals, breeds	Products from the Beef Industry Breeds of Cows (Mini Book Project- Color By Number) Cow Digestive System- Ruminant vs Monogastric (Chalk Drawing	Types of Poultry and Products from the Poultry Industry Chicken Anatomy (External) Breeds of Chicken Chicken	Dairy Cattle and Milk Production Dairy Farm Visit (Virtual) Butter in a Jar Milk Quality and Products Competition Practice (	Types of Companion Animals and Benefits to Humans- Dogs, Cats, Rabbits Anatomy of Companion Animals (External	Veterinary Careers Veterinary Equipment Identification Clinical Procedures- Taking pulse and respiration rates (animal	AS.01 AS.02 AS.03 AS.04 AS.05 AS.06 AS.07 AS.08

		and Digestive System Sensory Lab) Cow Anatomy (External) Cuts of Beef- Wholesale and Retail Flipbook, Butcher Visit Beef By Products Project (Magazine Cut Out) and Beef Bingo Livestock Genetics	Digestive System Chicken Life Cycle- Egg Dissection/Flipbook, Hatching Chicks Animal Needs/Animal Ethics- Designing Chicken Coops	https://www.nj.gov/agriculture/ag_ed/ffa/activity/12.001.pdf)	Anatomy Q-Tip Skeleton Flipbook) Care and Handling/Restraining of Companion Animals- Holds (Stuffed Animal Practice) and Maintenance (Dog Bath Visit) Dog Types and Breeds- Dog Breed Research Project and Poster, Dog Breed ID Fish- Fish Dissection	visits), administering medication (stuffed animal practice), bandaging techniques (stuffed animal practice), injections, sutures (pool noodle practice), filling prescriptions (prescription slime project) Parasites and Diseases- Parasite Identification, Preventing the Spread of Disease (Disease Transmission Simulation), Zoonoses Veterinary Science FFA CDE Practice-	

						https://www.nj.gov/agriculture/ag_ed/ffa/activity/12.020.pdf	
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, Labs, Portfolio Updates, Blog Posts							
Materials and Resources: Chromebooks, Food, Kitchen Equipment, FFA CDE Handbooks for Fruit and Vegetable Identification and Milk Quality and Products, MyPlate							
Interdisciplinary Connections: English Language Arts, Science, Math, Social Studies, 21st Century Career and Life							

Appendix

Standards in Action

The regional districts believe in offering an interdisciplinary approach to teaching and learning because students are able to make connections and relationships by bringing together separate content disciplines, skills and knowledge around common themes, issues, or problems. The NJ Department of Education mandates the following be identified as areas of study beneficial to integration into all grade levels and content areas.

Please click the hyperlink for further information on each area:

Career Readiness, Life Literacies, and Key Skills
Climate Change Education
Contributions of Disabled and LGBT Individuals
Holocaust Education
Amistad Commission
Social and Emotional Learning
Diversity, Equity and Inclusion
Asian American Pacific Islander

Types of Assessments

Students will be assessed across the units and year in a variety of ways. The link below indicates resources for developing assessments and general examples of assessments that teachers may utilize across all of the content areas.

Formative, Summative, Alternative, and Benchmark Assessments

Accommodations & Modifications for Special Education, ELL, G&T, 504 Plans and At Risk:

Modifications and Accommodations