EXPLORATORY EXPERIENCES

- EO Experiences & Objectives
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- RQ Request An Experience
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CLICK YOUR GRADE FOR HOW STATE STANDARDS ALIGN

ELEMENTARY

- K Kindergarten
- 1 First Grade
- 2 Second Grade
- 3 Third Grade
- 4 Fourth Grade
- 5 Fifth Grade

HIGHER LEVEL

- 6 Sixth Grade
- 7 Seventh Grade
- 8 Eighth Grade
- AG Agriculture/ FFA
- HS High School Sciences
- LL Living Labs Intensives

https://edu.juneberry.com/program/tour/

EO EXPERIENCES: OBJECTIVES & INFO

Option	Topics	Learning Objectives	More details
Aquaponic Greenhouse Experience	Aquaponic systems including raising fish, growing lettuce and herbs, and how these ecosystems work together	Students will be able to • Compare different methods of growing plants and fish. • Distinguish how ecosystems of plants and animals need each other. • Identify how lettuce, herbs, and fish can be grown for culinary purposes.	• Duration: 1 hour • Maximum group size: 30 • Age: 3rd Grade & up • Must wear closed-toe shoes • Must wear hair/ beard guards (provided)
Regenerative Agriculture with Livestock	Regenerative agriculture including soil health, importance, and the animals we are raising to improve soil health at Juneberry	Students will be able to • Define regenerative agriculture and explain how it improves our land. • Identify different livestock animals and what impact they provide. • Explain the importance of soil health to agriculture and the future world.	• Duration: 1 hour • Maximum group size: 30 • Must wear closed-toe shoes
Plant Production	Basic plant needs, native VS nonnative, plant identification & uses, seeding process, growth in a traditional garden plus other plant growing methods & more!	Students will be able to • Compare different methods of growing plants including traditional gardening, aquatic plants, and container gardening. • Determine why plants are needed and how we can take care of them to benefit our ecosystem. • Identify different plants and their uses. • Perform plant reproduction	• Duration: 1 hour • Maximum group size: 30 • Must wear closed-toe shoes

CONTINUE FOR MORE OPTIONS

EO EXPERIENCES: OBJECTIVES & INFO

Option	Topics	Learning Objectives	More details
Edible Landscape	Edible, Herbal, Medicinal, and other beneficial plants and their uses, native VS nonnative, plant identification using their senses.	Students will be able to • Compare different uses for plants that can be grown in the landscape. • Determine why plants are needed and how we can take care of them to benefit the ecosystem. • Identify different plants and their uses.	• Duration: 30-60 mins • Maximum group size: 30 • Must wear closed-toe shoes • Students may touch, see & smell plants. Check Allergies.
NC Wildlife	Wildlife VS Livestock basics, comparing pelts & skulls of wildlife, adaptations and genetics for survival, & wildlife interactions in their ecosystems.	Students will be able to • Compare different families, eating categories and species of wildlife from weasels to wild dogs to deer to turtles. • Determine why wildlife are beneficial and how we can take care of them to benefit our ecosystem. • Identify different wildlife animals/signs of presence.	• Duration: 30 mins • Maximum group size: 30 • Students may touch some pelts. • Easily combine with a hike for wildlife tracking experience.
HIking/Trail Building	Trail safety and first aid kits, hiking path difficulty, outdoor recreation and hiking for healthy habits.	Students will be able to • Compare different hiking paths. • Determine why safety is important on trails & how they should stay safe such as carrying a first aid kit. • Hike a trail to enhance healthy habits	• Duration: ranges from 15 minutes to 2 hours. • Must wear closed-toe shoes • Combines easily with Edible Landscape or Wildlife Experienc
Soil and Water Conservation	Real world methods at JBR, topography with VR sand table, & soil properties	Students will be able to • Identify soil textures, profiles, and other soil properties. • Explain best practices with soil.	• Duration: 30 minutes • Must wear closed-toe shoes • Pairs well with Regen Ag

AO

PAID ADD-ON OPTIONS

Add-On	Inclusions & Objectives	Price & Details
Aquaponic Harvesting Experience	• Students will leave with a head of lettuce, package of herbs, or package of edible flowers. • Learning Objective: Students will be able to explain correct harvesting procedures to protect food safety and how they should maintain their own harvested crop.	• Price: $5/person • Duration: 1 hour • Maximum group size: 30 • 3rd Grade or older • Must wear closed-toe shoes • Please check for allergies.

Harvesting Experience	• Students will leave with produce from our garden or greenhouse which varies based on season. Great alternative for younger students.
	• Learning Objective: Students will be able to explain correct harvesting procedures to protect food safety and how they should maintain their own harvested crop.
		• $5/person
		• Restrictions:
		  ◦ Groups of 30 or less
		  ◦ Must wear closed-toe shoes

Livestock Chores Experience	• Get hands-on experience working with animals such as washing eggs, moving animals, feeding/watering animals, etc.
	• Learning Objective: Students will be able to implement methods of caring for animals and producing animal products.
		• $5/person
		• Restrictions:
		  ◦ Groups of 30 or less
		  ◦ Must wear closed-toe shoes

Take Home a Plant/Seed	• Students will plant a seed or transplant a plant to take home and grow.
	• Learning Objective: Students will be able to do plant repro/management.
		• $3/person
		• Restrictions:
		  ◦ Groups of 30 or less
		  ◦ Must wear closed-toe shoes

Make a Tea Bag	• Students will learn how herbal teas are made including the processes of harvesting, drying, and creating a tea.
	• Learning Objective: Students will be able to explain processes of harvesting, drying, and preparing herbs for herbal teas AND will be able to build their own tea bag to take home.
		• $5/person
		• Restrictions:
		  ◦ Groups of 30 or less
		  ◦ Must wear closed-toe shoes

AO

PAID ADD-ON OPTIONS

Add-On	Inclusions & Objectives	Price & Details

Culinary Skills	• Students learn culinary skills and then use that skill to make a snack. For example, practice knife skills on playdoh and then cut produce for a salad
	• Learning Objective: Students will be able to perform culinary skills & create a healthy snack.
		• $10/person
		• Restrictions:
		  ◦ Groups of 30 or less
		  ◦ Must wear closed-toe shoes

Nature or Farm Craft	• Students can create a craft related to whatever experience they participate in. For example, if doing regenerative agriculture, they may paint a canvas with a scenic picture of the livestock.	• $3-$8/person depending on craft requested. i.e. nature bookmark is $3 but painting a canvas with an instructor is $8.

Picnic Shelter or Indoor Space with students bringing their lunch	• Covered picnic shelter area with 6 picnic tables and sits 30-40 people OR indoor loft with fold out chairs.
	• Also includes other outdoor spaces that can hold up to 100 people but do not have cover or tables (sitting on the grass or sidewalk).
	• DOES NOT INCLUDE FOOD.
		• Price: Free
		• Duration: 30 mins
		• Maximum group size:
		  ◦ 30-40 seated outdoors
		  ◦ 100 non-seated (on grass/sidewalk)
		  ◦ 100 indoors

Covered area with students bringing their own lunch	• 5-Stand Venue is covered and can be enclosed upon request. • Indoor area comfortably seats 50 people. Indoor and outdoor areas can seat 60-75 people. • DOES NOT INCLUDE FOOD.	• Price: $100/hour • Duration: 60 minutes • Maximum Group Size: 75 • Must drive to venue
Fine Indoor Dining with students bringing their own lunch	• Conference Center is our fine dining. • Round tables with linens provided in climate-controlled venue. • DOES NOT INCLUDE FOOD.	• Price: $200/hour • Duration: 60 minutes • Maximum Group Size: 75 • Must drive to venue
Farm Fresh Food	• Different meal options based on needs. • Common Boxed lunch includes sandwich, side, dessert, & drink.	• Ranges from $10-$100 but usually boxed lunches are $18

K KINDERGARTEN

State Standard	Available Experience
(EX.K.L.1) - Understand basic categories such as plants, animals, people, and objects	• Regenerative Ag with Livestock • Plant Nursery/ Gardening • Edible Landscape • Wildlife
(EX.K.L.1.2) - Identify plant vs animal	• Plant Nursery/ Gardening • Edible Landscape • Regenerative Ag with Livestock • Wildlife
(K.L.1.1) - Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc) to determine individual differences within a particular type of animal	• Regenerative Ag with Livestock • Wildlife
(K.PCH.1.1) - Use steps of correct hand washing at appropriate times throughout the day	• Aquaponic Greenhouse Food Safety
PE - Recognize the benefits of physical activity through outdoor recreation	• Hiking/Trail Building

1 FIRST GRADE

State Standard	Available Experience
(1.L.1.1) - Recognize that plants and animals need air, water, light (plants only,) space, food, and shelter, and that these may be found in their environment	• Regenerative Ag with Livestock • Plant Nursery/ Gardening • Edible Landscape • Wildlife
(1.L.1.2) - Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world	• Plant Nursery/ Gardening • Edible Landscape • Regenerative Ag with Livestock • Wildlife
(1.L.2.1) - Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth	• Plant Nursery/ Gardening • Edible Landscape
(1.L.2.2) Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.	• Regenerative Ag with Livestock • Wildlife
(1.NPA.3.1) - Recognize the benefits of physical activity	• Hiking/Trail Building
(1.NPA.3.2) - Recall fitness and recreation activities that can be used during out-of-school hours	• Hiking/Trail Building
(PE.1.PR.4.1) - Use basic strategies and concepts for working cooperatively in group settings	• Hiking/Trail Building
(PE.1.PR.4.3) - Use safe practices when engaging in physical education activities	• Hiking/Trail Building

2 SECOND GRADE

State Standard	Available Experience
(2.L.2.1) - Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways that are different	• Regenerative Ag with Livestock • Plant Nursery/ Gardening • Edible Landscape • Wildlife
(EX.2.L.1.1) - Identify physical characteristics (head, tail, eyes, ears, nose, mouth, legs, paws, beak, fathers, fur) in a variety of animals	• Regenerative Ag with Livestock • Wildlife
(EX.2.L.1.2) - Compare a variety of animals to determine how they are alike and different (i.e., dog- bark, four legs, tail; cat- meow, four legs, tail; soft/hard, big/little)	• Regenerative Ag with Livestock • Wildlife
(EX.2.L.2.2) - Identify living organisms (animals, people, plants) found in various environments	• Regenerative Ag with Livestock • Plant Nursery/Gardening • Edible Landscape • Wildlife
PE - Recognize the benefits of physical activity through outdoor recreation	• Hiking/Trail Building

3 THIRD GRADE

State Standard	Available Experience
(3.L.2) - Understand how plants survive in their environment	• Aquaponic Greenhouse • Plant Nursery/ Gardening • Edible Landscape
(3.L.2.2) - Explain how environmental conditions determine how well plants survive and grow	• Aquaponic Greenhouse • Plant Nursery/ Gardening • Edible Landscape
(3.L.2.4) - Explain how the basic properties (texture and capacity to hold water) and components (sand, clay, and humus) of soil determine the ability of soil to support the growth and survival of many plants	• Regenerative Ag with Livestock • Plant Nursery/Gardening
(PE.3.HF.3.2) - Identify enjoyable and challenging physical activities that one can do for increasing periods of time without stopping	• Hiking/Trail Building

4 FOURTH GRADE

State Standard	Available Experience
(4.L.1.2) - Explain how animals met their needs by using behaviors in response to info received from the environment	• Regenerative Ag with Livestock • Wildlife
(4.L.1.4) - Explain how differences among animals of the same population give individuals an advantage in surviving and reproducing in changing habitats	• Regenerative Ag with Livestock • Wildlife
(EX.4.L.1) - Understand the effects of environmental changes, adaptations and behaviors that enable plants and animals to survive in changing habitats	• Regenerative Ag with Livestock • Wildlife • Aquaponic Greenhouse • Plant Nursery/Gardening
(EX.4.L.1.1) - Describe how animals adapt to their environment (e.g. bears hibernate in the winter, birds fly south for the winter, lizards change color.)	• Regenerative Ag with Livestock • Wildlife
(EX.4.L.1.2) - Describe how plants adapt to their environments (e.g. plants grow towards the sun, leaves fall in the winter)	• Aquaponic Greenhouse • Edible Landscape • Plant Nursery/Gardening
(EX.4.L.1.3) - Identify ways that plants and animals protect themselves	• Regenerative Ag with Livestock • Wildlife • Plant Nursery/Gardening
(EX.4.L.1.4) - Understand why adaptations & behavior changes are essential for survival	• Regenerative Ag with Livestock • Wildlife
(4.E.2.1) - Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms	• Wildlife

5 FIFTH GRADE

State Standard	Available Experience
(5.L.2.2) - Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors)	• Regenerative Ag with Livestock • Wildlife • Aquaponic Greenhouse • Plant Nursery/Gardening • Edible Landscape
(5.L.2.3) - Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem	• Regenerative Ag with Livestock • Wildlife • Aquaponic Greenhouse • Plant Nursery/Gardening • Edible Landscape
(5.L.3.1) - Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.	• Regenerative Ag with Livestock • Wildlife
(5.L.3.2) - Give examples of likenesses that are inherited and some that are not.	• Regenerative Ag with Livestock • Wildlife • Plant Nursery/Gardening

6 SIXTH GRADE

State Standard	Available Experience
(EX.6.L.3.1) - Define producers and consumers	• Wildlife • Aquaponic Greenhouse
(EX.6.L.3.2) - Classify living things as either producers or consumers	• Wildlife • Aquaponic Greenhouse

7 SEVENTH GRADE

State Standard	Available Experience
(EX.7.L.1.2) - Describe ways that a plant and an animal help each other	• Regenerative Ag with Livestock • Aquaponic Greenhouse
(EX.7.L.1.3) - Describe characteristics that help a plant or an animal survive	• Regenerative Ag with Livestock • Wildlife • Edible Landscape • Plant Nursery/Gardening • Aquaponic Greenhouse

8 EIGHTH GRADE

State Standard	Available Experience
(8.L.3.2) - Summarize the relationships among producers, consumers, and decomposers, including the positive and negative consequences of such interactions, including: • Coexistence and cooperation • Competition (predator/prey) • Parasitism • Mutalism	• Regenerative Ag with Livestock • Aquaponic Greenhouse • Wildlife
(8.L.3.1) - Explain how factors such as food, water, shelter, and space affect populations in an ecosystem	• Regenerative Ag with Livestock • Plant Nursery/Gardening • Aquaponic Greenhouse
(EX.8.L.2.2) - Understand the relationship between living things and their environment	• Regenerative Ag with Livestock • Aquaponic Greenhouse • Edible Landscape • Plant Nursery/Gardening • Wildlife

AG AGRICULTURE COURSES - SUSTAINABLE AG

Course	State Standard	Available Experience
Sustainable Agriculture Production 1 (AU21)	• 3.00 Apply soil conservation practices. (both 3.01 basic properties and functions of soils AND 3.02 Apply management techniques to improve soil health.) • 4.00 Apply water conservation practices. • 4.01 Explain methods of water conservation practices. • 6.00 Apply agroforestry practices. • 6.01 Define the fundamental concepts of agroforestry. • 6.02 Apply agroforestry management plans • 7.00 Understand animal husbandry in sustainable ag. • 7.01 Explain how animals are selected and bred for sustainable production. • 7.02 Compare the functions and sources of nutrients for agricultural animals.	• Regenerative Ag with Livestock • Soil & Water Conservation with VR Sand Table
	• 4.02 Utilize irrigation practices. • 5.00 Apply sustainable crop production practices. • 5.01 Compare important horticultural and agronomic crop systems in North Carolina. • 5.02 Understand tools and techniques needed to cultivate horticultural and agronomic crops. • 5.03 Apply methods of sustainable crop production. • 8.00 Apply Integrated Pest Management practices (both 8.01 Identifying insect pests, diseases, and weeds & 8.02 appropriate techniques/technologies to manage)	• Plant Nursery/Gardening • Aquaponic Greenhouse
Sustainable Agriculture Production 2 (AU22)	• 5.02 Understand energy efficiency and conservation in sustainable agriculture production. • 7.01 Understand Good Agricultural Practices (GAP) to ensure food safety standards for production, post-harvest handling, processing, and distribution. • 7.02 Apply Good Agricultural Practices (GAP) to agricultural production. • 8.02 Understand aquaponic & hydroponic production.	• Aquaponic Greenhouse
	• 6.01 Understand precision agriculture (drones/sampling) • 6.03 Understand breeding programs in ag production • 8.01 Understand apiculture • 8.04 Understand vermicomposting • 8.05 Apply methods of sustainable agriculture to produce an agricultural commodity	• Regenerative Ag with Livestock

CONTINUE FOR PLANT OPTIONS

AG AGRICULTURE COURSES - PLANT SCIENCE

Course	State Standard	Available Experience
Horticulture 1 (AP41)	• 3.00 Understand plant biology and growth factors. • 3.01 Explain plant parts and their functions. • 3.02 Explain factors that influence growth/development • 4.01 Apply the process to identify environmental conditions needed for plant growth. • 4.02 Apply the process to identify optimum soil & media. • 4.03 Apply the process to identify essential nutrients needed for plant growth. • 4.04 Apply the process to identify IPM practices. • 7.02 Execute plant production practices.	• Plant Nursery/Gardening • Aquaponic Greenhouse • Edible Landscape
	• 4.00 Apply knowledge of environmental conditions for plant growth. • 5.02 Apply the process to identify common plants grown in NC using plant identification practices.	• Hiking/Trail • Edible Landscape
	• 6.00 Apply common plant propagation techniques. • 6.01 Execute sexual plant propagation methods. • 6.02 Execute asexual plant propagation methods. • 7.00 Apply plant production in horticulture. • 7.01 Compare garden, greenhouse, and nursery production practices.	• Plant Nursery/Gardening with seed activity
Horticulture 2 - Plant Production (AP42)	• 3.00 Apply greenhouse production & maintenance skills. • 4.00 Apply nursery production practices. • 4.01 Execute nursery production methods. • 6.00 Apply edible crop production practices. • 6.01 Implement vegetable production practices. • 6.02 Execute fruit and nut production practices. • 6.03 Execute post harvest practices.4.02 Evaluate for selection based on quality standards. • 7.00 Apply appropriate pest management techniques. • 7.01 Implement integrated pest management practices	• Plant Nursery/Gardening • Aquaponic Greenhouse
Hort 2 - Landscape Construction (AP44)	• 3.00 Apply site evaluation and plant identification skills necessary for landscape design. • 3.01 Implement a site evaluation and select plant materials for landscape use. • 3.02 Apply the process to identify common landscape and nursery plants • 7.00 Apply landscape maintenance skills. • 7.01 Implement landscape maintenance skills. • 7.02 Apply proper integrated pest management techniques in a landscape.	• Edible Landscape • Hiking/Trail

CONTINUE FOR ANIMAL OPTIONS

AG AGRICULTURE COURSES - ANIMAL SCIENCE

Course	State Standard	Available Exp.
Animal Science 1 (AA21)	• 3.00 Understand the economic impact and current trends and issues in animal science • 3.02 Understand current trends in the animal industry. • 3.03 Understand animal welfare issues and the benefits of producing healthy animals. • 4.00 Understand quality traits and criteria used to evaluate animals. • 4.01 Remember terminology used to describe animals. • 4.02 Understand industry standards to select food and companion animals. • 5.00 Understand reproductive systems (both 5.01 - mammals and 5.02 - avian) • 6.00 Understand digestive systems & nutritional components. • 7.00 Understand best management practices in animal science (both 7.01 - behavior & 7.02 - handling systems)	• Regenerative Ag with Livestock
Animal Science 2 - Food Animal (AA22)	• 3.00 Understand anatomy and physiology of food animals. (both 3.01 - anatomy and 3.02 - physiology) • 4.00 Evaluate animal genetics and selection. • 4.01 Analyze genetics for selection. • 4.02 Evaluate for selection based on quality standards. • 5.02 Implement feed requirements based on life stage and production needs • 8.00 Understand the process of harvesting food animals and how their products are classified. • 8.01 Understand harvesting and processing procedures. • 8.02 Classify quality grades, carcass traits, cuts of meat.	• Regenerative Ag with Livestock
Animal Science 2 - Companion Animal (AA23)	• 5.00 Understand the anatomy and physiology of companion animals (both 5.01 - anatomy and 5.02 - physiology) • 6.00 Apply proper care and management of dogs. • 6.01 Apply the process to identify dog breeds using physical characteristics and traits. • 6.02 Execute grooming procedures to maintain healthy skin, coat, nails, eyes, and ears of dogs. • 6.03 Interpret the nutritional needs of dogs. • 6.04 Apply the process to identify diseases and parasites and their effects on the health of dogs.	• Regenerative Ag with Livestock

CONTINUE FOR NAT. RESOURCES

AG AGRICULTURE COURSES - NATURAL RESOURCES

Course	State Standard	Experience
Natural Resources 1 (AN51)	• 4.01 Understand the contents of soil and demonstrate the ability to properly evaluate and classify soils. • 4.02 Understand the cause and effects of soil erosion and conservation practices. • 4.03 Understand the components of the water supply, water users, and water pollution.	• Regenerative Ag with Livestock • Soil & Water Conservation
	• 5.01 Understand the components of freshwater fish habitats and species.	• Aquaponic Greenhouse
	• 5.03 Understand the habitat requirements and other factors that affect wildlife species. • 5.04 Understand the qualities and characteristics of NC wildlife species.	• NC Wildlife • Hiking/Trail Building
	• 6.01 Understand the impact of forests, their products, and the parts of a tree and their functions. • 6.02 Remember common NC trees based on physical characteristics.	• Hiking/Trail • Edible Landscape
Natural Resources 2 (AN52)	• .4.00 Understand information related to the quality, properties, and use of soil and water. • 4.01 Understand soil conservation management practices/ techniques used to properly sample & evaluate test results. • 4.02 Understand issues related to water pollution, quality, sampling, and identification of indicator species.	• Regenerative Ag with Livestock • Soil & Water Conservation
	• 5.02 Remember wildlife species based on physical characteristics.	• Wildlife
	• 6.01 Understand the types of aquaculture facilities and potential products produced in an aquaculture operation. • 6.02 Understand operation methods & management considerations with a variety of aquaculture systems.	• Aquaponic Greenhouse
Natural Resources 2 - Forestry (AN53)	• 1.03 Classify topography and soils, physiographic regions, and forest types of North Carolina • 5.02 Understand silvicultural techniques to establish forests. • 5.03 Understand silvicultural techniques to manage forests.	• Regenerative Ag-Livestock • Soil & Water
	• 3.01 Understand the parts of a tree and their functions. • 3.02 Apply the use of dendrology to identify common trees in North Carolina. • 3.03 Apply techniques to use forest maps and navigation tools. • 6.03 Understand the benefits of sustainable forest management & scientifically sound forest mgmt decisions	• Hiking/Trail Building • Edible Landscape

HS HIGH SCHOOL EARTH & ENVIRO.

State Standard	Experience
• ESS.EES.5.2 Analyze and interpret data to evaluate how human use of ground and surface waters impacts water quality and availability in river basins, wetlands, estuaries, and aquifers. • ESS.EES.5.5 Construct an argument to evaluate potential solutions that will ensure sustainable consumption of Earth's resources. • ESS.EES.5.6 Construct an argument to evaluate a range of solutions to mitigate impacts of human activities on Earth's systems. • ESS.EES.6.2 Construct an argument to infer how some natural hazards (such as flooding and wildfires) are increasing in frequency and intensity due to human activities.	• Soil & Water Conservation
• ESS.EES.4.1 Use models to explain how abiotic/biotic interactions shape various ecosystems. • ESS.EES.4.2 Analyze and interpret data to explain how carbon cycling influences various ecosystems. • ESS.EES.4.4 Construct an explanation to predict how potential future changes in abiotic factors could impact biodiversity and species distribution. • ESS.EES.4.5 Obtain, evaluate and communicate information to explain how biodiversity impacts ecosystem resilience. • ESS.EES.5.1 Analyze and interpret data to explain the impacts of land use on Earth's systems. • ESS.EES.5.5 Construct an argument to evaluate potential solutions that will ensure sustainable consumption of Earth's resources. • ESS.EES.5.6 Construct an argument to evaluate a range of solutions to mitigate impacts of human activities on Earth's systems. • ESS.EES.6.1 Analyze and interpret data to infer how use of natural resources impacts ecosystems and human populations, including human health.	• Regenerative Ag with Livestock

CONTINUE FOR BIOLOGY OBJ.

HS HIGH SCHOOL BIOLOGY COURSE

State Standard	Experience
• LS.Bio.3.2 Use models to illustrate how photosynthesis transforms light energy into chemical energy. • LS.Bio.3.3 Use models to illustrate how cellular respiration [aerobic & anaerobic] transforms chemical energy into ATP. • LS.Bio.4.1 Use models to illustrate processes in organisms contribute to the flow of energy and the cycling of matter within an ecosystem. • LS.Bio.4.2 Use models to explain the relationship between flow of energy & cycling of matter among organisms in ecosystems. • LS.Bio.8.2 Obtain/communicate information that summarizes the impact of biotechnology applications on the individual, society, & the environment, including agriculture and medicine.	• Regenerative Ag with Livestock • Aquaponic Greenhouse
• LS.Bio.5.1 Use mathematics/computational thinking to explain how interactions between organisms (predator/prey, compete) affect carrying capacity & maintain stability in an ecosystem. • LS.Bio.5.2 Engage in argument from evidence to evaluate various solutions to reduce the impact of human activities on biodiversity and ecosystem health. • LS.Bio.6.1 Use models to explain how DNA is passed from parents to offspring through the processes of meiosis and fertilization in sexual reproduction. • LS.Bio.7.2 Analyze and interpret data to explain how polygenic traits result in a wide range of phenotypes. • LS.Bio.7.3 Construct an explanation to summarize how traits result from interactions of genetic factors (multiple genes and/or alleles) and environmental factors. • LS.Bio.8.2 Obtain/communicate information that summarizes the impact of biotechnology applications on the individual, society, & the environment, including agriculture and medicine. • LS.Bio.9.3 Use models to illustrate the conditions required for natural selection, including the overproduction of offspring, inherited variation, and the struggle to survive. • LS.Bio.9.4 Construct an explanation to explain how natural selection leads to adaptations within populations. • LS.Bio.10.1 Construct explanations to illustrate how varying environmental conditions may result in: changes in the number of individuals of a species, the emergence of new species over time, or the extinction of other species.	• Regenerative Ag with Livestock • Wildlife

LL LIVING LAB INTENSIVES

Experience	Topics/Activities	More Details
Soil Living Lab Intensive	• Characteristics and maintenance of soil • Soil health • Regenerative soil management • Observe heavy equipment operation • Discover soil profiles and texture • Learn how livestock and poultry help improve the quality of soil.	• Best fit for AP High School & Community College • Duration: 2 hrs • Group Size: 25 per session • Cost: $100/group
Aquaponic Living Lab Intensive	• Basic Aquaponic GH Objectives • Take measurements and troubleshoot real problems, for instance: determining the volume of fish tanks and how many fish the aquaponic system can hold • Measuring pH and learning how to correct it C • Comparing different methods of fish production to decide which is best for the environment.	• Best fit for AP High School & Community College studying science/math • Duration: 2 hrs • Group Size: 25 • Cost: $100/group

RECOMMEND FOR AP ENVIRONMENTAL SCIENCE OR OTHER AP/COMMUNITY COLLEGE COURSES IN MATH/SCIENCE

TEACHER/ADMIN MUST INQUIRE AT HTTPS://EDU.JUNEBERRY.COM/CONTACT-US/ AND BOOK 1 MONTH AHEAD