



ANIMAL SCIENCE PROJECTS



LARGE ANIMAL

Beef

Raise and care for a calf. Identify breeds, recognize a healthy animal, select feed ingredients and shop for beef and beef by-products.

Dairy Cattle

Raise and care for a cow. Learn the breeds of dairy cattle, explore the milk production systems. Recognize a healthy animal, select feed ingredients.

Dairy Goat

Raise and care for a goat. Recognize a healthy animal, select feed ingredients. Learn how to make products such as soap and cheese.

Horse & Pony

Learn horsemanship skills and understand breeding, training, and raising of horses. Participate in mounted or unmounted activities.

Llamas & Alpacas

Explore different ways to show an alpaca and llama. Learn and practice animal ownership care and responsibilities. Learn about fiber, breeding or meat products.

Meat Goats

Care for one or more meat goats for at least 70 days before exhibiting. Learn about breeds, health care, grooming, production, reproduction, management, and showmanship.

Sheep

Learn to raise and show sheep. Learn about budgeting, digestive systems, reproduction, genetics, lambing, ethics, marketing and careers.

Swine

Raise or show swine. Learn about breeding, health, feeding, fitting and showing, marketing and careers.

SMALL ANIMAL

Amphibians & Reptiles

Identify native amphibians and conduct field research, raise an amphibian or reptile and journal about the process.

Aquatic Science

Raise fish at home, learn about native fish species, learn about fish habitats.

Cats

Practice cat ownership care and responsibilities. Learn about the different cat breeds, nutrition, common health concerns, and grooming procedures.

Cavy (Guinea Pigs)

Learn about guinea pig care, welfare, and record keeping. Apply knowledge to care for your own animal.

Dogs

Practice dog ownership. Investigate breeds, practice grooming, fitting, showing and training, care for dogs, explore dog-related careers and activities.

Poultry

Own, care, and keep records on one or more animals. Explore knowledge of sound breeding, feeding, and management practices. Investigate current issues facing the industry and how you can start a career in the poultry business. Learn how to rear eggs.

Rabbits

Learn about breeding, handling, showing, health and disease, pedigrees, record keeping, marketing and careers. Be a good rabbit herdsman or train your rabbit in agility.

Veterinary Science

Explore the many careers in animal and veterinary science, study the health and anatomy of animals, understand animal health in relation to humans, and learn through experience how to care for an animal.



CREATIVE ARTS PROJECTS



Clothing & Textiles

Learn the basics of sewing construction and how to make simple clothing and accessories. Develop skills in design and fashion illustration, business and marketing, technology in sewing, and learn about careers in the textile industry.

Creative Writing

Explore why to write, where to get ideas, theme, character, plot and setting, word choice, imagery and dialogue. Write a short story, a book, or a poem.

Drama/Theater

Express an idea through pantomime, communicate using body language, tone and inflection, participate in group storytelling, create and deliver a character sketch, synchronize movements, create a monologue, plan or design a theater set.

Hobbies & Collections

Learn about various types of collections, the ins and outs of the collecting process, and how to best display your items. Display and share your collections with others.

Home Environment

Learn all about the home environment, from decorating a room and arranging furniture to landscaping.

Music/Dance

Start playing an instrument or taking dance lessons. Explore different genres of music and dances. Write your own music and perform it individually or as an ensemble. Choreograph your own dance.

Photography

Practice techniques for taking quality photographs. Learn about lighting, interesting backgrounds, and photo composition. Plan a shot, frame a picture, try different lenses, and jazz it up on your computer.

Videography

Learn to use the video setting on a camera, plan scenes and transitions for a video, develop skills in capturing quality video, and edit clips to make a complete video.

Visual Arts

Explore and experiment with endless materials to make new art. Develop your creative skills and talents. Be confident expressing yourself through various art forms. Gain understanding of art history, cultures, and various techniques. Master the basics of making great art – its elements and principles.



CAREER, LEADERSHIP, & CIVIC ENGAGEMENT PROJECTS



CAREER & LEADERSHIP

Career Exploration & Employability

Explore career possibilities, create resumes, practice interviews.

Communications

Practice and develop communication skills. Interpret verbal and nonverbal messages, demonstrate effective written skills, demonstrate effective public speaking, use presentation aids to enhance quality of spoken communication.

Entrepreneurship

Learn what it takes to start and run a business, learn the different types of businesses and research jobs that fit your interests. Develop skills in decision-making, effective communication, and time management.

Financial/Money Management

Learn the basic principles of personal money management. Participate in a variety of money management activities. Develop financial skills and habits you can use throughout your lifetime.

Leadership

Learn how to work with and lead others at home, at school, and in the community. Gain skills in the area of project management, conflict resolution, and organization.

CIVIC ENGAGEMENT

Child Development

Learn the basic skills needed as babysitters, adults, and potential parents. Identify characteristics of children ages birth to six, learn to plan fun and safe activities for children.

Genealogy

Document your heritage through ancestral research. Learn where your ancestors resided, traveled, and developed family traditions.

Global/Cultural Education

Broaden your understanding of yourself and your own culture and develop the capacity to function in a multicultural community. Understand the importance of knowing about other countries and their cultures. Explore and appreciate diversity, develop skills in cross-cultural communication.



ENVIRONMENTAL SCIENCES PROJECTS



Astronomy

Create a model of the solar system, use a telescope to discover which planet has several visible moons, locate the brightest star in the sky and learn its name.

Entomology (Bugs)

Learn about the importance of insects to your everyday life, explore insects in their natural habitats, collect and identify insects to make an insect collection.

Bees & Pollinators

Discover the long history bees have with humans, learn about ecosystems, find out how to produce bee products such as honey and beeswax crafts. Connect your learning with global issues in agriculture.

Environmental Stewardship

Increases awareness of conservation and sustainable practices. Develop the knowledge, skills, and attitudes needed to become an environmental steward every day.

Fish/Fisheries

Learn about fish species and habitats, experiment with fishing gear, baits and lures. Tie knots, lines and flies. Research fishing regulations.

Forestry

Learn about the different types of forests, trees, forest products and how to keep forests healthy. Investigate the forests in North Carolina, wildlife and ecosystems. Learn what foresters do and what other careers involve forestry.

Geology & Minerals

Collect and study different rocks, explore large geological structures, make your own crystals, learn the rock cycle, or create jewelry with rocks and minerals.

GIS/GPS

Learn the basics of GPS and GIS, gain practice using GPS devices, learn to read and create maps.

Outdoor Adventure

Learn how to set up a camp, go on hikes with friends, try out rock climbing or bouldering. Share your knowledge or a skill you learned with friends.

Water/Water Conservation

Learn about the water cycle, what a watershed is, sources of water, how pollution affects water quality, why conservation is important, how to reduce water use at home, and general water safety tips.

Weather & Environment

Learn basic information about weather and climate science, including what causes variations in weather and why we have different seasons and climates on the earth. Observe and record weather conditions and learn weather symbols.

Wildlife

Increase awareness and appreciation of nature and its structure. Explore human interdependence with the natural world. Gain knowledge of environmental and ecological concepts. Identify how humans impact the environment.



FOOD SYSTEMS & AGRICULTURE PRODUCTION PROJECTS



Crops

Find out how a tiny seed can become a plant for food, flowers or medicine! Learn about the parts of a plant, photosynthesis, cross-pollination, soil, erosion, plant classification, greenhouses and careers in horticulture.

Floriculture

Gain an appreciation of plants and our environment. Learn how to grow plants indoors and outdoors. Be able to identify common flowers and plants. Learn how to propagate plants. Learn to make a variety of floral arrangements, corsages, plaques, dish gardens & terrariums.

Gardening

Learn how to plan, plant, maintain and cultivate plant life for beauty, health and cuisine. This project will give youth an opportunity to learn that plants play a vital role for animals and humans providing food, shelter, fiber, medicine, oxygen, and beauty.

Horticulture

Learn effective, safe methods of pest control and management. Produce vegetables and fruits for year-round use to improve nutrition. Apply knowledge by experimenting with plants in a laboratory or in the field.

Meat Science

Identify the various types of meat cuts. Study the effects that nutrition has on meat products. Learn health regulations and laws associated with meat processing. Explore careers related to meat processing.

Soils & Soil Conservation

Investigate the importance of soil to the ecosystem and agriculture production, and explore how human and natural activities impact soil characteristics and health.

Wood Science

Develop an understanding of fiber products from the forest. Learn about and develop responsible attitudes toward the science, engineering, technology and math behind the woodworking process. Learn about environmental protection and the wise use of natural resources.

Weather & Environment

Learn basic information about weather and climate science, including what causes variations in weather and why we have different seasons and climates on the earth. Observe and record weather conditions and learn weather symbols.



HEALTHY LIVING & NUTRITION PROJECTS



Cooking

Learn how to select, prepare and store cooked food items. Explore the many methods of cooking, which include roasting, stir frying, grilling, barbecuing, smoking, boiling, steaming, braising and microwaving. Use USDA's MyPlate to plan meals and make balanced food choices.

Fitness & Sports

Participate in your favorite sport. Share your passion for your sport or activity by educating people about fitness tips and safety. Work on locomotive skills and physical fitness.

Food Preservation

Practice preserving jams, vegetables, and other items. Understand why food is preserved. Learn the science of safe food preservation and how to prepare, preserve and store foods safely.

Foods

Learn how to read recipes, cook or bake tasty food, identify how to keep food safe, create a grocery list based on a budget.

Grilling

Become a grill master and learn to prepare your favorite foods including burgers, chicken, turkey, and more. Learn how to safely use a grill and all the ins and outs of food safety.

Health

Practice a healthy lifestyle and share what you have learned with others. Learn about health and wellness resources in your community and state.



SCIENCE, TECHNOLOGY, ENGINEERING, MATH (STEM) PROJECTS



Aerospace

Build and launch a rocket, design an airplane or fly your own hot-air balloon. Learn about careers in aviation and space.

Bicycle

Demonstrate safe cycling skills, plan and participate in cycling events, document bike rides with photos, journals, or a scrapbook.

Computer Science

Explore the impact of computers on society, upgrade a computer, build a website or write computer code, Identify computer components and operating systems.

Electric

Build circuits and test voltages. Learn about wiring, lighting, safety issues, and more. Build a rocket launcher, burglar alarm, flashlight, compass, electromagnet or electric motor.

Robotics

Learn to design, build and program a robot to do a task. Gain skills in engineering design, research and development & learn to analyze and interpret data.

Small Engines

Learn about safety, fuels, maintenance, restoration and operation of lawn mowers, weed eaters, and other small engines.

Tractor & Machinery

Explore your interest in tractors. Develop skills and interests related to safety maintenance and repair, driving skills, or restoration.