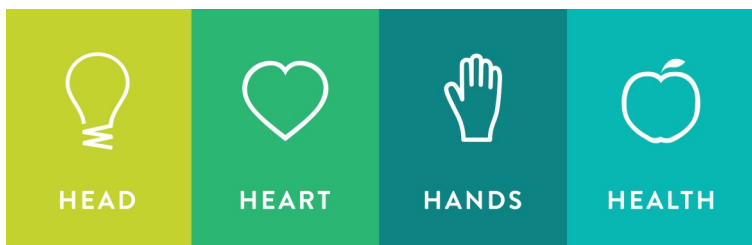


# Central Kansas District 4-H Project Guide

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**K-STATE**  
Research and Extension



Central Kansas  
District



## Animal Science

**Beef** – Includes concentrations in Breeding Beef, Bucket Calf, and/or Market Beef to learn about raising, caring for, and managing beef cattle.

**Dairy Cattle/Dairy Goats** – Learn about caring, raising, and managing dairy animals.

**Dog Care and Training** – Explore caring for dogs and their training. Opportunities are available for members without dogs as well.

**Horse** – Learn how to handle, care for, and ride horses.

**Meat Goats** – Designed for learning about raising meat goats, fitting and showing, and developing knowledge for breeding stock and evaluating feed ingredients.

**Pets** – Includes both the Cat and Hand Pet projects for exploring how to select a pet, and their care and feeding.

**Poultry** – Explore chickens and other types of poultry including breeds, care, eggs, and poultry management.

**Rabbits** – Identify breeds, learn to care for rabbits, and how to groom and show a rabbit.

**Sheep** – Includes the Breeding and Market projects as an avenue to learning about the sheep industry, care and raising of sheep, and uses for sheep.

**Swine** – Teaches the raising, care, and management of swine in the Breeding and Market Swine project areas.

**Veterinary Science** – Investigate animal behavior, characteristics of different breeds, animal diseases and health, and careers in veterinary medicine.



## Communication & Expressive Arts

**Communications** – Interpret verbal and nonverbal information, develop effective public speaking skills, enhance written and spoken communication, defend a point, and design presentations.

**Interior Design & Architecture** – Examine your home spaces, inside and out. Explore furniture & décor, color, line, value, space, shape, form, and texture.

**Performing Arts** – Explore movement, voice, speech, acting, music, and other types of performance.

**Photography** – Learn about film and digital cameras, planning, composing, editing, and light usage.

**Visual Arts** – Teaches artistic skills and the elements and principles of design along with exploring techniques, art history, culture, and different mediums.

## Family & Consumer Science

**Sewing & Textile Design** – Learn to create and sew clothing and accessories while exploring the world of fashion, learn sewing skills, selecting fabric, and modeling.

**Shopping in Style** – Topics to explore include understanding a wardrobe, budgets, color and style, fit, and modeling.

**Family Studies** – Members will learn about how we grow and develop, building family strengths, managing a household, and financial management.

**Fiber Arts** – Includes the Crochet, Ethnic Arts, Knitting, Macramé, Needle Arts, Patchwork & Quilting, Rug Making, Spinning, and Weaving disciplines.

**Foods & Nutrition and Food Preservation**– Designed to progress through basic and advanced cooking skills, food safety, consumer skills, preserving food, and recipes for a healthy lifestyle.

**Health & Wellness** – Explore physical activity, healthy eating, exercise, sports & recreation, and first aid.



## Engineering & Technology

**Aerospace/Rocketry** – Explore aerospace technology as well as examining the fundamentals of rocketry such as lift, drag, and other factors affecting rocket design.

**Ag Mechanics Welding** – Learn about welding equipment, electrodes, and basic welding skills with an emphasis on welding and smithing . Ag mechanics, metallurgy, repairing/repurposing items, and fabrication of new items may be points of focus in this project area.

**Astronomy** – Explore telescopes, astronomers, circumpolar & seasonal constellations, moon phases, nocturnal navigation, common stars, and deep sky objects.

**Building Block Engineering** – Use architectural blocks ("Legos") to construct dioramas while learning foundational architectural skills of designing in three dimensional spaces.

**Computer Science** – Teaches concepts related to computers, hardware knowledge, software programming & applications, internet safety, building/ maintenance/repair of computers, fundamental principles of computer programming, and future career opportunities.

**Electric & Renewable Energy** – Experiment with making light switches and circuits, test voltages and build motors. Learn how wind can be used for sailing, lifting, pumping water and creating electricity.

**Robotics** – Designed to give participants an opportunity to study robot arms/legs/ wheels/under water capabilities, sensors, analog & digital systems, basic circuits, robot design, and programming.

**Small Engines** – Discover how small engines work and how to keep them working. Learn about identifying and discovering the function of engine parts, compression ratios, safety issues, and rebuilding.

**Uncrewed Aircraft Systems (UAS)** – Gain knowledge of the technology that makes flight possible, general aerospace fundamentals , and gain skills to pilot your drones safely and successfully.

**Woodworking** – Use safety practices while building, identify woodworking tools, learn measuring skills, identify lumber and select wood based on grain, and explore woodworking techniques and tools. Youth will also explore technology and career opportunities.



## Leadership & Personal Development

**Civic Engagement** – Find out more about yourself, family, friends, community, and world while exploring opportunities to meet others, work with groups, and learn about other countries and cultures.

**Entrepreneurship** - Whether you are developing a new idea or improving an existing one, in this project, you will learn the basics of starting and running a business. Build your skills in public speaking, financial literacy, marketing, and business operations.

**Leadership** – Learn the skills to be a leader including understanding yourself, communicating, getting along with others, learning, making decisions, and managing and working with groups.

**Reading Adventures** – Explore libraries, specific topics, reading for pleasure, and sharing reading materials with others.

**Self-Determined** – This project is designed for 4-H Members to create their own project by researching and exploring a topic of interest not already included in the 4-H project listings.

## Natural Resources

**Environmental Science** – Examine natural sciences and technology about our environment, explore ecosystems, conservation, recycling efforts, ecological footprint, and learn how water can be preserved, protected, used, and reused.

**Geology** – Discover types of minerals, rocks, and fossils while becoming familiar with geological formations.

**Shooting Sports** – Teaches safety and care of shooting sports equipment along with opportunities for exhibiting skills and knowledge. Members must be 8 years of age as of January 1 of the current 4-H year. Project disciplines include Air Rifle, Archery, BB Gun, Hunting Skills, and Shotgun.

**Wildlife** – Learn about wildlife behavior, habitats, species, wildlife management, and Kansas wildlife.



## Plant Sciences

**Agronomy** – Experiment with soil testing, grow and harvest crops, plant a wheat variety test plot, and learn about herbicides and fertilizers.

**Entomology** – Learn about insects, their behavior, and how to identify the insects in soil, on plants, in homes, on pets, and other places.

**Forestry** – Learn to identify trees, determine differences between trees and shrubs, learn about different trees and tree parts, grafting, health benefits of trees, forest changes and health, and forest conservation.

**Horticulture & Landscape Design** – Explore when and where to plant, plant parts and identification, preventative pest controls, plant pollinations, biotechnology, and harvesting and selling your harvest.