2018-19 Wyoming Project Guide

A 4-H project is an area that you want to learn more about during the year. There are projects on just about any topic you would like to study and explore, from art to woodworking, from computers to rabbits, from foods to range management. Under each project is a description of what you might learn in the project and in italics is a list of resource curriculum that can be used to help you learn about the project or assist a leader in helping you learn.

Your county Extension Office has a copy of the curriculum books listed below. Curriculum with a * is free and you can download it at the website listed. Other curriculum can be purchased at http://www.4-hmall.org/ unless otherwise noted.

Don’t forget to check out the project pages on the Wyoming 4-H Web Site at http://www.uwyo.edu/4-h/projects/. On these pages, you’ll find descriptions for statewide projects, internet resources and links of interest, county fair exhibit suggestions, other suggested project resources.

And remember, you’ll learn more than “subject matter” as you complete your projects. You’ll learn many “life” skills that you’ll use every day of your life, such as, understanding yourself, communicating better, solving problems, making decisions and working with others. Good luck in your project selections. Have a great 4-H year!

AEROSPACE
Think about the excitement that accompanies dreams of sending a rocket into space, making a first solo flight, becoming an astronaut or someday visiting other planets. In the aerospace projects, you will enjoy learning more about your dreams through hands-on experiences. Members can explore their fascination with flying an airplane, launching a rocket, conquering space, and becoming an astronaut or pilot with this project.
Resource: 06842, Pre-Flight  
06843, Lift Off  
06844, Reaching New Heights  
06845, Pilot in Command  
06846, Aerospace Adventures Helper’s Guide

ARCHERY
Learn how to tune out all distractions, while shooting either a compound or recurve bow; by focusing on form and release, for either traditional or Olympic style shooting, to build self-esteem in a fun and rewarding way.
Resource: *Shooting Sports Manual (uwyo.edu/4-h)
Leaders will receive project resources at Shooting Sports Leader Certification.

BEEF
You can have fun in the beef project learning how to determine the type of animal you are looking for, how to feed it, diseases it might have, management techniques and many other important skills. This project is filled with hands-on activities, including how to make a rope halter, preparing your beef animal for the fair and giving vaccinations. You will also have the opportunity to explore the many careers and opportunities the beef industry has to offer.
Resources: 08143, Bite Into Beef  
08144, Here’s the Beef  
08145, Leading the Charge  
08146, Beef Helper’s Guide  
08455 Exploring Beef Health and Husbandry  
*The 4-H Beef Project: An Introduction (uwyo.edu/4-h)
CAKE DECORATING
Through this project you will learn the skills to start making cakes for parties and events. It starts with knowing the basics like simple borders, decorations and cake molds. Then it advances to lace and lattice work, tiered cakes, special icings and, finally, advanced flowers. Creativity — it's just a piece of cake!
Resource: *4-H Cake Decorating (uwyo.edu/4-h)

CATS
Cats need care and attention. The 4-H Cats project helps you explore how a cat can fit into your family's lifestyle and how to be an excellent caretaker of your feline friend. Cats need your love and guidance to live long and healthy lives. The project will help you learn about nutritional aspects of a cat's diet, health needs and practicing responsible ownership
Resource: 08148, Purr-fect Pals
08149, Climbing Up!
08150, Leaping Forward
08151, Cat Helper’s Guide

CIVIC ENGAGEMENT
Discover what is important to you and to other people, set goals, take action and build a stronger community. Through this project, youth become active citizens, investigating a public issue, learning about the roles of governing officials and carrying out a plan to solve a problem. This project can be taken as an individual member or as a club project where all club members (or several club members) take the project together.
Resource: 08153, Citizenship Adventure Kit
08154, Citizenship Guide’s Handbook
*Community Pride Project Guide (uwyo.edu/4-h)

CLOVERBUDS – YOUTH AGES 5-7
Participation, safety, personal development, learning and fun are the priorities for Cloverbuds. This project is designed to introduce cooperative learning and the many things youth can do in 4-H. Cloverbud programs are adult led, activity-focused, and are built on cooperative learning rather than competition.
710GPM The Big Book of 4-H Cloverbud Activities (http://estore.osu-extension.org/The-Big-Book-of-4-H-Cloverbud-Activities-P451.aspx)

COMPUTERS
Through the computer project learn about hardware, software and computer applications. Learn how to create networks, domains and workgroups and make decisions about operating systems. Plan your security and firewalls, make decisions about monitoring your network and troubleshooting problems. Take your skills to the next level by learning scratch programming. Program fun animations and put the characters into computer games that you create.
Resource: 08346, Newbie Know How Supplement
08347, Inside the Box
08348, Peer to Peer
08349, Teens Teaching Tech
01606Y Discovering Computer Science and Programming through Scratch: Youth Guide
01607F Discovering Computer Science and Programming through Scratch: Facilitators Guide
CROCHETING
A sweater, an afghan and a hat are all things that can be crocheted. It's an easy, relaxing art of yarn and crochet hooks that can become an interest that travels with you. In the crocheting project, you will learn crochet terms, abbreviations, stitches and how to end off. Then watch how your family and friends wait for you to make them something special.
Resource: *Crochet Made Easy (http://www.redheart.com/books/crochet-made-easy)
*Discover 4-H Crochet Clubs (https://www.unce.unr.edu/4H/counties/clark-ne/files/pdf/CrochetCurriculum.pdf)

DOGS
In the 4-H dog project you will learn basic skills for dog care and training. You can also explore dog health, nutrition, care, showmanship and obedience training. Dog project members can investigate responsible breeding, diseases, dog roles and careers.
Resources: 08166, Wiggles and Wags
08167, Canine Connection
08168, Leading the Pack
08169, Dog Helper’s Guide
*Wyoming Dog Show Guidelines (uwyo.edu/4-h)
*4H 716W Indiana 4-H Dog Showmanship Guide (uwyo.edu/4-h)

ELECTRICITY
De-mystify the “magic” of electric circuits, magnetism, motors and electronics. From building burglar alarms to learning how to select a good stereo and other consumer items. This project offers opportunities for hands-on experiences and knowledge you will use in the future. Experience technology firsthand while learning communication and decision-making skills.
Resource: 06848, Magic of Electricity
06849, Investigating Electricity
06850, Wired for Power
06851, Entering Electronics
06852, Electric Excitement Helper’s Guide

ENTOMOLOGY (INSECTS)
Explore the amazing world of insects and their arthropod relatives. Learn exciting new things about insects and their life cycle. Collect insects and construct an entomology box so that others can learn about insects as well. This project is filled with many hands-on activities that you will enjoy and want to share with others.
Resource: 08440, Teaming with Insects, Level 1
08441, Teaming with Insects, Level 2
08442, Teaming with Insects, Level 3
08443, Teaming with Insects, Facilitators Guide

FABRIC AND FASHION
Have you ever seen an outfit and wanted it in a different color or style that wasn’t available in the store? Or have you tried on an outfit and needed it hemmed to fit just right? Maybe you are looking for how to find the right accessory for an outfit you just got, or how to look for a good sale in the clothing section. In Fabric and Fashion, you can learn basics like sewing a shirt or putting a zipper on a pair of pants. The advanced units will also teach you how to take the design of your choice and customize it for the perfect look, color and fit. In addition, learn the skill of accessorizing and buying the perfect outfit at a reasonable price.
Resources: 4H2210, STEAM Clothing 1: Fundamentals
4H2211, STEAM Clothing 2: Simple Sewing
4H2212, STEAM Clothing3: A Stich Further
4H2213, STEAM Clothing: Maker’s Guide to Sewing
4H2214, STEAM Clothing: Beyond the Needle
Wyoming Fabric and Fashion (ask for a copy from your 4-H educator)
FOODS & NUTRITION
If you enjoy cooking or just like good food, this project could be for you. You will have fun learning the basics of cooking and then advance to gourmet meals. Learning consumer buying skills to get the most from your money are also opportunities for you in this project area. In Food Preservation you will learn how to freeze and dry foods, can foods, make jams, jellies, pickles and relishes and advanced food preservation.

Foods
Resource: 01512Y 4-H Cooking 101
          01513Y 4-H Cooking 201
          01514Y 4-H Cooking 301
          01515Y 4-H Cooking 401
          01516Y Cooking Helper’s Guide

Food Preservation
          PNW651, Drying Project Manual
          PNW652, Boiling Water Canning Project Manual
          PNW653, Pressure Canning Project Manual

GARDENING AND HORTICULTURE
Get outside and dig in the soil; you can grow your own fruit and vegetable garden with this project. Create rows of vegetables and fruit that you enjoy and that are good for you and your family! Learn basic gardening techniques, how to plan a garden and career options — or even learn how to start your own business.

Resources: 4H1037, Gardening: See Them Sprout (2016)
           4H1038, Gardening: Let’s Get Growing (2016)
           4H1039, Gardening: Take Your Pick (2016)
           4H1040, Gardening: Growing Profits (2016)
           4H1041, Gardening Helper’s Guide (2016)
           Selecting and Showing Produce (http://www.wyomingextension.org/agpubs/pubs/B1196.pdf)

GEOLOGY
Geology is the study of the earth. Much of our knowledge about the earth comes from the rocks, minerals and fossils that surround us. Explore the earth — in your backyard, a creek bed, a road cut, anywhere you go. Take field trips, collect specimens, develop your collection and exhibit at the fair. Learn the basics and pursue special interests.

Resource: *Give Discover 4-H Geology Clubs (http://utah4h.org/discover/)
           *Kansas 4-H Geology Project Leader Notebook (uwyo.edu/4-h)
GOATS
Learn about goat breeds, management, grooming and showmanship. Along your journey find out why their offspring are named “kids.” You will also figure the cost to raise a goat, learn how to care for your goat, and what resources are needed for taking care of your animal. The project also includes how to share information about goat projects and the goat industry.

Dairy Goats
Resource: 08352, Getting Your Goat
08353, Stepping Out
08354, Showing the Way
08355, Dairy Goat Helper’s Guide
*The 4-H Dairy Goat Project: An Introduction (uwyo.edu/4-h)

Meat Goats
Resource: 07909, Just Browsing
07910, Get Growing with Meat Goats
07911, Meating the Future
07912, Meat Goat Helper’s Guide
*The 4-H Meat Goat Project: An Introduction (uwyo.edu/4-h)

HEALTH
Are you interested in exploring a wide variety of activities related to physical well-being? In this project, you will have the opportunity to learn the importance of first aid as well as how to maintain a healthy lifestyle through cleanliness, good eating habits, and physical activity. In this project, you can also design a personal fitness plan and track your progress. This is a great project if you are already involved in a school or community athletic team, sport or other physical activity program.

Resource: 08174, First Aid in Action
08175, Staying Healthy
08176, Keeping Fit

HORSES
Are you interested in learning more about horse or love riding? In the horse project, you will discover the basics of horse behavior, breeds and safety, learn about acquiring, selecting and raising a horse, and learn riding and horsemanship skills. This project will also help you to build a financial plan and learn about horse careers. You can also take part in the riding levels program.

Resources: 08053, Giddy Up & Go
08054, Head, Heart & Hooves
08055, Stable Relationships
08056, Riding the Range
08057, Jumping to New Heights
08058, Horse Helper’s Guide
CO200, Horses & Horsemanship
CO201, Horse Science
*The 4-H Horse Project: An Introduction (uwyo.edu/4-h)
*Wyoming 4-H Equine Competition Guidelines (uwyo.edu/4-h)

INTERIOR DESIGN
Do you walk into a room and know exactly what colors and what furniture would look good in the space? Do you know what paint color or wallpaper would brighten the room? How do you create a feeling of coziness in a family room? Being an interior designer is all about making a house a home. But, what about just starting in your room? Can you select colors, textures and accessories that will show off your personal style and enable you to take care of your room? If you know the basics, you can advance to wood finishing, principles of design, furnishing purchase decisions or using software to create your ideal house.

Resource: Design My Place (CD) (marketplace.unl.edu)
Design Decisions (marketplace.unl.edu)
KNITTING
Knitting isn’t just for when you are sitting in front of a warm fire, it is a hobby you can take with you! Knitting is a wonderful craft to learn and it can be taken anywhere. In the knitting project, you will learn knitting techniques and tips. Did you know that many professions use the techniques learned in knitting (think, surgeons) and other professions use the concentration acquired (think, acting or engineering)?
Resource:  
*Knitting Made Easy (http://www.redheart.com/books/knitting-made-easy)  

LEATHERCRAFT
In this project, you can learn the construction of small leather articles involving carving, stamping and lacing. You can start with simple articles, such as a coaster, and learn the skills to advance methods of decorating leather such as filigree and figure carving.
Resource:  
*Leathercraft Unit 1 Project Guide (uwyo.edu/4-h)  
*Advanced Leathercraft Unit 2 Project Guide (uwyo.edu/4-h)

LLAMAS AND ALPACAS
In the Alpaca/Llama project, you will learn how to feed and care alpacas/llamas, as well how to train them for a show. You can also learn about the many products created from llamas and alpacas, such as fiber.
Resources:  
4-H 996, Llamas & Alpacas, Book 1  
4-H 997, Llamas & Alpacas, Book 2  
4-H 998, Llamas & Alpacas, Book 3  

MUZZLELOADING
Experience how to properly load and fire a black powder firearm when aiming at a variety of target types. For safety reasons, the member must have the physical strength and ability to properly seat the lead ball.
Resource:  
*Shooting Sports Manual (uwyo.edu/4-h)  
Leaders will receive project resources at Shooting Sports Leader Certification.

NATURE AND ECOLOGY
How does water pollution affect wildlife? What alien species live in your neighborhood? How can you decrease your energy use? Find answers to these questions as you are learning about environmental science through hands-on, experimental learning experiences in the natural sciences and technology.
Resource:  
08410 Exploring Your Environment – Ecosystem Services  
08411 Exploring Your Environment – Earth’s Capacity  
08412 Exploring Your Environment – Facilitators Guide

OUTDOOR RECREATION
This 4-H project is for those who like hiking and camping! Progress from day hikes to overnight camping trips, and then to extended backpacking expeditions as you hike through the three activity guides and the helper’s guide. Experiences relate to food, shelter, Leave No Trace ethics, safety, navigation, equipment and camp management.
Resource:  
08043 Hiking Trails  
08044 Camping Adventures  
08045 Backpacking Expeditions  
08046 Outdoor Helper’s Guide
PHOTOGRAPHY
Capture important moments, communicate your perspective and show how life appears through your lens with photography. Learn about cameras, lighting, and digital and film media so you can be ready when you find that great shot. Build skills you can use to excel in other 4-H opportunities and explore possible new careers.
Resource:  
   PC1, Focus on Photography  
   PC2, Controlling the Image  
   PC3, Mastering Photography

PISTOL
You will learn how to shoot an air pistol or a .22 pistol using a two-handed standing position and a one-handed International style shooting position. Learn basic shooting skills and utilize them in hunting small game or for competition.
Resource: *Shooting Sports Manual (uwyo.edu/4-h)
   Leaders will receive project resources at Shooting Sports Leader Certification.

POCKET PETS
The Pocket Pets project provides positive opportunities for young people to develop the essential life skills of mastery, independence, generosity and belonging through their interest of pets. Learn how to raise a small animal or pet in a home, how to select the right small animal for your circumstances and environment, how to give urban pets proper housing, care and health, and how to show small pets.
Resource:  
   06359, Pet Pals  
   06360, Scurrying Ahead  
   06361, Scaling the Heights  
   06362, Pet Helper’s Guide  
   *The 4-H Pocket Pets Project: An Introduction (uwyo.edu/4-h)

POULTRY
Identifying poultry parts, species and breeds, selection, exploring an egg, cooking an egg, feeding, handling, washing and showing are activities included in the 4-H poultry project. In the intermediate level you will learn how to read a feed tag, explore retail products, grade carcasses, select layers and manage poultry health. Advanced poultry members will develop leadership skills by planning a judging clinic, managing a flock, exploring careers, processing chickens, conducting poultry games and discussing values and ethics.
Resource:  
   06363, Scratching the Surface  
   06364, Testing Your Wings  
   06365, Flocking Together  
   06366, Poultry Helper’s Guide  
   *The 4-H Poultry Project: An Introduction (uwyo.edu/4-h)  
   *PS 5.145 Producing Turkeys for Show (uwyo.edu/4-h)

QUILTING
Do you have a favorite quilt that someone special has made for you? Maybe it has been passed down from generation to generation. You too can learn quilting techniques and create wonderful quilts and other useful, fun items in the 4-H quilting project.
Resource:  
   You Can Quilt! (http://projectcentral.ohio4h.org/publications/you-can-quilt/)  
   Quilting the Best Better (http://projectcentral.ohio4h.org/publications/quilting-the-best-better/)
RABBITS
Whether you see rabbits as soft and cuddly pets or a business opportunity, the rabbit project is flexible for your interest. Beginning level rabbits activities include selection, handling, breeds, parts, management, equipment, feeding, health, breeding and kindling. At the intermediate level through hands-on activities, you will learn how to select, judge, give oral reasons, show rabbits, tattoo, keep records and detect diseases. In the advanced level of the rabbits project, you will learn more about breeding, genetics, culling, determining pregnancy, designing a rabbitry, anatomy, teaching others, registering a rabbit and marketing your product.
Resource:  
08080, What’s Hoppening?
08081, Making Tracks
08082, All Ears
08083, Rabbit Helper’s Guide
*The 4-H Rabbit Project: An Introduction (uwyo.edu/4-h)

RANGE MANAGEMENT
Wyoming has a vast array of rangeland to explore. This project allows you to study rangeland plant types and how/where they grow. You can identify, collect, and analyze plants and can decide if they are a good fit for your area.
Resource:  
5311 At Home on the Range (http://store.msuextension.org/)

RIFLE
You will have the chance to experience the Air Rifle along with .22 Rifle while learning about target diversity in a standing, prone and kneeling positions. Learn about breathing techniques, sight picture and sight alignment, along with trigger control.
Resource:  
*Shooting Sports Manual (uwyo.edu/4-h)
Leaders will receive project resources at Shooting Sports Leader Certification.

ROBOTICS
Exploring 4-H Robotics is an ideal way to introduce science, math, engineering and technology while teaching life skills. Through hands-on activities, the 4-H Robotics projects teach basic concepts related to robotic subsystems such as structure, power, sensors, control and programming. These concepts are the foundation for building robots and robotic subsystems from a variety of materials and packaged kits. 4-H Robotics has projects and resources for a wide variety of interests.
Resource:  
*Robotics Engineering Volume 1  
(http://www.education.rec.ri.cmu.edu/content/lego/curriculum/rev1_index.htm)
*Robotics Engineering Volume 2  
(http://www.education.rec.ri.cmu.edu/content/lego/curriculum/rev2_index.htm)
*NXT Video Trainer  
(http://www.education.rec.ri.cmu.edu/content/lego/curriculum/nvt2_index.htm)

ROPECRAFT
Learn about knots, hitches, and bends in the ropecraft project. Did you know there are 14 basic skills that can be used in many activities and situations from sailing and climbing to working with animals and decorating. This project is a lot of fun, and we’re KNOT kidding.
Resource:  
540, Not Just Knots (http://estore.osu-extension.org/Not-Just-Knots-P454.aspx)
*41001-95 Wyoming Ropecraft Manual (uwyo.edu/4-h)
SELF-DETERMINED
A self-determined project allows members freedom to design a project with skills that are not already offered in a different project. Please consider if your project work might fit into another project area before selecting the self-determined project. Members enrolling in the Self-determined project are responsible for identifying their project resources and filling out project paperwork. Projects in this category allow the member to set individual goals and select activities suited to his or her needs. Approval from the UW 4-H Educator is required.
Resource: *Designing My Own Project (uwyo.edu/4-h)

SHEEP
The sheep project introduces you to a wide variety of fun and challenging activities including identifying parts of a sheep, selecting a project lamb, preparing for lambing season, identification of lamb meat products and feeding and showing sheep.
Resources: 06367, Lambs, Rams and You
06368, Shear Delight
06369, Leading the Flock
06370, Sheep Helper’s Guide
*The 4-H Sheep Project: An Introduction (uwyo.edu/4-h)

SHOTGUN
Learn about teamwork while busting clays in trap, skeet and sporting clays.
Resource: *Shooting Sports Manual (uwyo.edu/4-h)
Leaders will receive project resources at Shooting Sports Leader Certification.

SPORT FISHING
In this project, you can learn to select equipment, choose a place to fish, catch fish, and either release or prepare them for dinner. It will help you understand fish management practices and how they affect fishing. This project is designed to focus on this great lifetime sport along with understanding the rules and responsibilities of it, and conserving it for the future.
Resource: 07598, Take the Bait
07599, Reel in the Fun
07600, Cast into the Future
07601 Fishing Adventures Helper’s Guide
*4-H Sportfishing Manual (uwyo.edu/4-h)

SWINE
Enjoy learning the different breeds, swine body parts, selection, exploring the digestive system, exploring swine diseases, identification of the different meat products and many more exciting things in the swine industry. Hands-on activities including practicing fitting and showing swine, managing baby pigs, balancing a ration and designing a swine operation.
Resources: 08065, The Incredible Pig
08066, Putting the Oink in the Pig
08067, Going Whole Hog
08068, Swine Helper’s Guide
08456, Exploring Swine Health and Husbandry
*The 4-H Swine Project: An Introduction (uwyo.edu/4-h)
VETERINARY SCIENCE
A natural compassion for animals and an interest in science is what leads most veterinarians into their field. Learn the role a veterinarian plays in practicing animal and public health while participating in many hands-on activities. These activities will help you learn about the different equipment used by veterinarians, diseases and health problems, and career opportunities as a veterinarian or volunteer. You do not have to own an animal to be in this project.

Resources:
- 08048, From Airedales to Zebras
- 08049, All Systems Go
- 08050, On the Cutting Edge
- 08051, Veterinary Science Helper’s Guide
- 08744 DD, Veterinary Science 1: Animal Behavior – THIS IS A DIGITAL DOWNLOAD
- 08745 DD, Veterinary Science 2: Animal Vital Signs – THIS IS A DIGITAL DOWNLOAD
- 08746 DD, Veterinary Science 3: Disease Transmission – THIS IS A DIGITAL DOWNLOAD
- 08747 DD, Veterinary Science 4: Principals of Biosecurity – THIS IS A DIGITAL DOWNLOAD
- 08748 DD, Veterinary Science 5: Advanced Concepts in Animal Care – THIS IS A DIGITAL DOWNLOAD

VISUAL ARTS
Cutting and pasting, painting, sculpting, drawing, printing, preserving memories and construction with fibers and other materials are all exciting hands-on activities in the arts and crafts project. Experience different careers, culture, science and technology that are available. Explore your creativity and discover a hobby that you might enjoy for the rest of your life. Budding artists manipulate fiber, construct sculpture and draw in Sketchbook Crossroads. Portfolio Pathways affords the opportunities to create and communicate through printing, painting and graphic designing.

Resources:
- 4H592, Get Started in Art
- 08140, Visual Arts 1: Sketchbook Crossroads
- 08141, Visual Arts 2: Portfolio Pathways

WILDLIFE AND HUNTING
In this project, you can learn how to identify, track and characterize game birds and animals; how to become a good, safe and lawful hunter; how to conserve and improve habitats; and the basic concepts of taxidermy.

Resource:
- *Wyoming Game and Fish Department Hunter Education Student Manual (https://wgfd.wyo.gov/Education/Hunter-Education)

WOODWORKING
Have you ever wanted to make something with wood? This project is an opportunity for you to create and construct items using wood and woodworking tools. From the basics of using a tape measure and a hammer to advanced equipment like routers and table saws, there is something for everyone. Have fun by learning new things and creating useful items.

Resource:
- 06875, Measuring Up
- 06876, Making the Cut
- 06877, Nailing It Together
- 06878, Finishing Up
- 06879, Woodworking Helper’s Guide
YOUTH LEADERSHIP

Life brings many situations where good leadership skills can make a difference: working on a group project in a class, being part of a team, finding yourself with people about to make a mistake, owning your own business or even being an elected leader. You’ll make a bigger difference by knowing how to make good decisions, build relationships, organize your life and plan for success. Get started with a foundation in leadership that you can build upon over a lifetime!

Resource:  
07905, My Leadership Workbook  
07906, My Leadership Journal  
07907, My Leadership Portfolio  
07903, Leadership Mentor Guide for Grades K-5  
07904, Leadership Mentor Guide for Grades 6-12