



Baker County 4-H Project Book Guide



Ages 8-18

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Welcome to the exciting world of 4-H projects! To select your projects, think about those things you'd like to do and learn. An Annual 4-H Project Report will be provided for each project you are enrolled in. If you finish your projects before the 4-H year (Sept 1st-Aug 31st) is complete, give a hard copy of your completed projects to your 4-H Agent with the project report and you may select more projects to complete. By completing and turning in a completed project book and/or participating in several 4-H programs & activities throughout the year, you will officially complete a 4-H year and may be eligible for recognition at our annual 4-H Banquet. (Project books are due May 1st in the 4-H office.) What are the costs of 4-H books? It depends on the book. Some are Free others have a nominal charge \$3.00 - \$4.00 And many are available on-line!

All of the project books available for each project are listed below. Let your leader know the projects you wish to enroll in and the project books you wish to order. Unless otherwise indicated, all projects are available to all members in grades 3-12. To enroll in large animal projects, including beef, dairy, goat, horse, and swine, you must be 8 years of age as of Sept. 1, 2007.

THINGS TO KNOW WHEN CHOOSING A 4-H PROJECT

1. When there are units or levels listed for a project, this usually refers to the sequence in which you should complete them.
2. Check age guidelines for each project and project unit. As a general guideline, unit 1 projects are for grades 3-5, unit 2 are for grades 6-8 and unit 3 are for grades 9-12.
3. Most of the 4-H projects you can do on your own and at your own speed. In some projects county or club workshops will be offered. These are announced by your leader or in Clover Chronicle, our 4-H newsletter.
4. When you receive your project books, read through them and write down some project goals.....some things you want to do or learn about. Then make a project plan on how you are going to achieve these goals. (Refer to your Annual Project Report for information on how to do this.)

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ANIMAL SCIENCES

[FL Livestock Breeding Project Record](#)[†]
[FL Livestock Market Record Book](#)[†]

BEEF www.n4hccs.org/

1. BITE INTO BEEF - Engage in activities to identify breeds, locate parts, judge, halter break a calf, fit a steer, show a calf, recognize a healthy animal, select feed ingredients and show for beef and beef by-products
2. HERE'S THE BEEF - Activities related to leg structure, presenting oral reasons in judging, feed ingredients, behavior, nose printing, parasites, fitting, ethical issues, beef carcass composition, and retail meat cuts.
3. LEADING THE CHARGE - Selection and judging, feeds, careers, health, reproduction, and meats and marketing encourage you to deepen your learning.

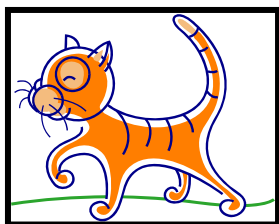
Beef: Group Helpers Guide

Beef: Pattern for Cloth Model Calf

CATS Grades 3 - 12 www.n4hccs.org/

1. PURR-FECT PALS - Learn about cats, engage in activities to select a cat, identify breeds, name the parts of a cat, handle and groom a cat, care for its health and budget for its care.
2. CLIMBING UP- Activities on cat senses, the meaning of cat sounds, tricks you can teach a cat, signs of illness and health emergency situations, feeding, special diets, traveling with a cat and showing it.
3. LEAPING FORWARD - Explore veterinary procedures, cat body systems, diseases, reproduction, genetics, older cat needs, behavior, showmanship, community laws, animal welfare and personal strengths.

Cat: Group Helpers Guide



DAIRY CATTLE Grades 3 - 12 www.n4hccs.org/

1. COWABUNGA!- Explore dairy cattle breeds, select calves, identify parts of dairy cattle, recognize desirable traits, identify stages of calving and care, pack a show box and groom and show a calf
2. MOOVING AHEAD- Deepen their learning by focusing on housing, hay quality, milking, keeping animals health, parasite, behavior and food safety. Explore ethics, judging and careers
3. RISING TO THE TOP - Advanced youth practice mastitis detection, balancing a ration, pregnancy detection, delivery of calf, body condition scoring, selecting cattle through records, promoting dairy products and exploring career opportunities

Dairy: Group Helpers Guide

DOG Grades 3 - 12 www.n4hccs.org/

1. WIGGLES AND WAGGLES- Learn basic skills for dog care and training. Activities include knowing breeds, selecting a dog, knowing the parts of a dog, keeping a dog healthy and groomed training and much more.
2. CANINE CONNECTION- Explore more about dog health, nutrition, care, genetic problems, population control, showmanship, training, ethics and budgeting.
3. LEADING THE PACK- Investigate responsible dog breeding, diseases, caring for geriatric dogs, training, service dogs, dog roles and careers related to dogs

Dog Helper's Guide

GOAT: DAIRY GOATS Grades 3-12

www.n4hccs.org/

- Goat 1: GETTING YOUR GOAT- Develop skills in selecting a goat, identifying breeds, naming body parts, management, records, safety, disease prevention, feed ingredients, products, grooming and showmanship.
- Goat 2: STEPPING OUT- Continue the fun with activities and information on delivering a kid dairy goat, caring for a newborn, performing dairy goat management practices, exploring health problems and diseases, hay quality and products., Exhibiting, judging dairy goats and giving oral reasons.
- Goat 3: SHOWING THE WAY- Show your knowledge and skills while selecting a breeding system, developing a herd calendar, formulating a ration, determining body condition scores, evaluating a dairy goat herd and planning a judging contest.

Dairy Goat : Group Helpers Guide

Kid Pattern

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GOAT: MEAT GOATS Grades 3-12

www.n4hccs.org/

Meat 1: JUST BROWSING- Learn goat breeds and selection, feeding and management, goat health, goat body parts, record keeping, meat goat and dairy confirmation, show preparations and sportsmanship.

Meat 2: GET GROWING WITH MEAT GOATS- Explore goat diseases, identifying poisonous plants, determining body condition, water quality, goat predators, kidding, and goat reproduction, the veterinary profession, selecting stock and showing meat goats.

Meat 3: MEATING THE FUTURE- Discover how to select breeding sires, balance a ration, prevent diseases, control internal and external parasites, practice bio-security, practice sound ethics, conduct a meat goat judging clinic, judge goats, give oral reasons and explore meat goat products.

Goat (Meat): Group Helpers Guide

HORSE

Senior (14 - 18y/o) Member Horse Record Book

[FL 4-H Horse Project Record Book](#)[†]

Junior (8-10y/o) & Intermediate (11-13y/o) Member Horse Record Book

[Baker Co. Junior/Intermediate Horse Project Record Book](#)

Horse(less) project

[Love a Horse Members Guide](#)[†]

[Love a Horse Leaders Guide](#)[†]

[FL Horse Member Advancement Program 1](#)[†]

[FL Horse Member Advancement Program 2](#)[†]

[FL Horse Member Advancement Program 3](#)[†]

[FL Horse Member Advancement Program 4](#)[†]

[Horse Advancement Program Leaders Guide](#)[†]

[Florida State Horse Show Official Rules](#)^{*†}

Horse Science

Horses & Horsemanship

Horse: Grades 3-12 www.n4hccs.org/

1. GIDDY UP & GO- Youth who may or may not have a horse of their own, but want to learn about horses will enjoy this unit. Learn the basics of horse behavior, breeds, and safety around horses through a variety of activities, including teaching others.

2. HEAD, HEART & HOOVES- Learn more about acquiring and raising a horse including selecting a horse, horse nutrition and care, equine teeth and bones, judging, including giving oral reasons and much more.

Continued....

3. STABLE RELATIONSHIPS- Explore horse reproduction, diseases and health care, pasture management, providing appropriate shelter and building a financial plan.

4. RIDING THE RANGE- Learn nine basic riding skills and ten horsemanship skills, training techniques, trail riding and selection and use of tack.

5 JUMPING TO NEW HEIGHTS- Learn more advanced riding skills, the Quarter System, horse showmanship, ethics and leadership

Horse: Group Helpers Guide

PETS Grades 3-12 www.n4hccs.org/

Pet 1: PET PALS: Learn about pets through activities such as selecting a pet, identifying pet parts, pet art, handling pets, providing the right kind of housing and meeting the daily needs of pets.

Pet 2: SCURRYING AHEAD: Develop planning and decision making skills as you practice feeding and caring for your pets, observing pet behavior, exhibiting pets, debating pet sayings and creating a story about a pet.

Pet 3: SCALING THE HEIGHTS: Explore genetics, pet issues, reproduction, caring for newborns, starting a business and entering careers.

Pet: Group Helpers Guide



POULTRY Grades 3-12

www.n4hccs.org/

Poultry 1: SCRATCHING THE SURFACE - Activities such as identifying poultry species and breeds, selecting poultry, feeding and handling, washing and showing poultry, exploring an egg and cooking eggs.

Poultry 2: TESTING YOUR WINGS- Select layers, keep your poultry healthy, identify pecking order in a flock, read a feed tag, explore retail products, identify poultry bones, grade carcasses, use the Standard of Perfection to evaluate poultry, make a budget and examine an egg using an egg candler.

Poultry 3: FLOCKING TOGETHER- Develop leadership skills by managing a flock, processing chickens, exploring careers, planning a judging clinic, conducting poultry games and discussing values and ethics.

Poultry: Group Helpers Guide

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RABBITS

Grades 3-12 www.n4hccs.org/

1. WHAT'S HOPPENING? Learn selection, handling, breeds, parts, management, equipment, feeding, health, breeding and kindling.

2. MAKING TRACKS: Learn to select a rabbit, detect diseases, tattoo your rabbit, keep records, show rabbits, and judge rabbits including giving oral reasons.

3. ALL EARS: Advanced youth fully explore rabbit management practices through breeding, genetics, culling, designing a rabbitry, marketing rabbits, preventing diseases and registering a rabbit

Rabbit: Group Helpers Guide

Rabbit: Sewing Pattern for a Cloth Rabbit

SHEEP

Florida 4-H Market Lamb Record*

1. LAMBS, RAMS AND YOU - Introduced to a wide variety of fun and challenging activities including identifying parts of a lamb, selecting a project lamb, identifying lamb cuts, selecting feed and showing sheep.

2. SHEER DELIGHT - Youth present oral reasons, determine yield grades, compare digestive systems, explore a feed tag, deliver a lamb, treat parasites and discuss ethical decision making.

3. LEADING THE FLOCK - Engage in activities related to judging, budgeting, web surfing, reproduction and genetics, surveying consumers, career exploration, marketing products and teaching others.

Sheep: Group Helpers Guide

Sheep: Pattern for Sewing a Kid or Lamb

SWINE

Grades 3-12 www.n4hccs.org/

1. THE INCREDIBLE PIG- Naming breeds, learning body parts, judging market hogs, exploring a digestive system, examining a healthy pig, identifying pork cuts, practicing fitting and showing are just a few of the activities.

2. PUTTING THE OINK IN PIG- Challenges include managing baby pigs, balancing a ration, exploring swine diseases, preparing pork, discovering swine careers and packing a show box.

3. GOING WHOLE HOG- Advanced youth plan a breeding system, judge breeding gilts, design a swine operation, and complete a job application plus many more activities.

Swine: Group Helpers Guide

Swine: Sewing Pattern for Baby Pig

VETERINARY SCIENCE Grades 3-12

www.n4hccs.org/

Vet Science 1: FROM AIRED DALES TO ZEBRAS- Learn about the normal animal, basic anatomy and systems, elementary principles of disease and careers with animals.

Vet Science 2: ALL SYSTEMS GO- Examine health and disease topics, normal and abnormal conditions in animals and veterinary careers.

Vet Science 3: ON THE CUTTING EDGE- Participate in deeper investigations of normal and abnormal systems, preparation for college and exploration of the diversity of the veterinary profession.

Vet Science: Group Helpers Guide



COMMUNICATION

ARTS & SCIENCES

COMMUNICATIONS Grades 3-12

www.n4hccs.org/

1. PICKING UP THE PIECES- Engage in nonverbal, verbal, and written activities that stretch and strengthen personal communication skills. Encrypting codes, writing songs, giving directions, dealing with bullies, and making a statement through art are a few of the exciting activities.

2. PUTTING IT TOGETHER- Practice and gain confidence in communicating in a variety of situations. Gain confidence as a strong communicator as you present oral reasons, plan and present speeches, communicate assertively, practice making a good first impression and mentor others.

3. THE PERFECT FIT- Polish your communication skills and develop a public presence by speaking in public, exploring communication careers, writing resumes, interviewing for a job, developing presentations, dealing with anxiety and much more.

Communications: Group Helpers Guide

PUBLIC SPEAKING & DEMONSTRATIONS

Grades 3-12 Florida 4-H

Learn to plan, prepare, and present public speeches.

Learn how to give speeches of intro-introduction, presentation and acceptance, how to research a topic. Acquire the ability to speak in public. Activities include county, district and state speaking contests.

4-H Public Speaker's Handbook *Making Posters*

Do A Visual Presentation *your 4-H Image*

[Discovering the Treasure of Public Speaking[†]](#)

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THEATRE ARTS Grades 3-12

www.n4hccs.org/

1. **PLAY THE ROLE!** – **ACTING**- Through creative dramatics activities, you bring your imagination to life. Movement, voice and speech, characterization, play building and playing a scene. Activities range from warm-ups to improvisation, from pantomime to monologue making, from clowning to theatre visits.
2. **BECOME A PUPPETEER!** – **PUPPETRY**- Learn types of puppets (hand, rod, marionette, shadow, etc.); how to create a puppet and puppet stage; development of your puppet character; how to create and present a puppet skit; and puppetry therapy.
3. **SET THE STAGE!** - **STAGECRAFT**- Learn stagecraft options which tap into your unique skills and talents behind the scenes, including costumes, sound, lighting, props, set design, makeup and stage management.

Theater: Group Helpers Guide

ARTS & CRAFTS www.n4hccs.org/

1. **SKETCHBOOK CROSSROADS** - Practice drawing, fiber arts and sculpting to develop their artistic skills and talents
2. **PORTFOLIO PATHWAYS** - Learn painting, printing and graphic design techniques

HOBBIES & LEISURE Florida 4-H Grades 6-12

Collectibles Project Book: Learn how to collect and care for collectibles, including coins, figurines, leaves, rocks, sports cards etc.

WOODWORKING WONDERS Grades 3-12

www.n4hccs.org/

1. **MEASURING UP:** Develop the basic skills that wood-workers use, such as measuring, squaring and cutting a board, driving nails, and using clamps and screws. The final product may be a picture frame, a letter holder, a box or an airplane.
2. **MAKING THE CUT:** Youth who have used basic hand tools will measure, cut, sand, drill, use advanced hand and power tools, and apply paint and use bolts and staples. Woodworking project choices include building a sawhorse, birdhouse, tool box or stool.
3. **NAILING IT TOGETHER:** Youth who are competent with hand tools and who have used power tools practice measuring angles, cutting dado and rabbit joints; use a circular saw, a table saw and a radial arm saw; smooth lumber with a hand planer and sand and stain wood.

Continued...

4.FINISHING UP: Youth who are craftsman and competent with a table saw, radial arm saw, drill press and jig saw, move up to using a router, portable planer and jointer, making a blind mortise and tenon joint, making dovetail joints and experimenting with adhesives and various chemical wood strippers.

Woodworking: Helpers Guide

PHOTOGRAPHY

1. **FOCUS ON PHOTOGRAPHY** - Equipment basics, taking sharper pictures, the concept of lighting and flash, photo composition and approaches, sequencing and evaluating photographs.
2. **CONTROLLING THE IMAGE**- Explore depth of field, aperture and shutter speeds, hard and soft lighting, silhouettes and flash techniques. Learn to evaluate composition and using the rule of thirds, use different viewpoints and understand positive and negative space.
3. **MASTERING PHOTOGRAPHY**- Understand the use of different lenses, filters and special film. Experiment with light sources and viewpoints.



CITIZENSHIP, LEADERSHIP, & CIVIC ENGAGEMENT

CAREER DEVELOPMENT- Florida 4-H [Career Exploration 1: Countdown to Liftoff[†]](#)

CITIZENSHIP - Florida 4-H

- [Exploring Citizenship Leaders Guide[†]](#)
- [Me, My Family, & My Friends: Unit 1[†]](#)
- [My Neighborhood: Unit 2[†]](#)
- [My Clubs & Groups: Unit 3[†]](#)
- [My Community: Unit 4[†]](#)
- [My Heritage: Unit 5[†]](#)
- [My Government: Unit 6[†]](#)
- [My World: Unit 7[†]](#)

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CITIZENSHIP – PUBLIC ADVENTURES

Grades 4-12 www.n4hccs.org/citizenship

CITIZEN ADVENTURES KIT: Grades 4-12. Decision making, problem solving, and teamwork are among the skills you will learn. Address real community issues and keep a journal of your thoughts, decisions and actions throughout the process. The Adventure Kit contains a passport to record achievements, postcards with project tips and a travel log.

Citizenship Guide's Handbook

SERVICE LEARNING

1. AGENTS OF CHANGE- Middle School. Become a “Special Opportunities Agent” as you follow a series of exciting activities that engage you in your community and allow you to reflect on your own experiences. Identify community needs, plan a service project and execute your idea using the manual. The CD included has supporting materials and a journal to record your own experiences.

2. RAISE YOUR VOICE- High School. Plan and implement your own service project. A journal for reflections and support materials are included on a CD. Voices of real young people engaged in service will inspire you and connect you with others who made an impact.

Service Learning: Helpers Guide

LEADERSHIP

4-H Council Handbook*

[Officers' Training Handbook](#)[†]

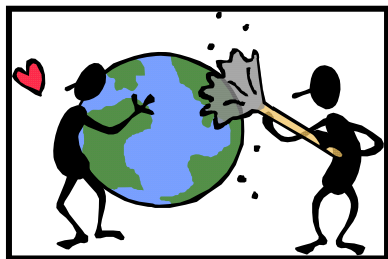
[Secretary's Record Book](#)[†]

[Treasurer's Manual & Record Book](#)[†]

EXPLORING THE TREASURES OF 4-H Grades 2 - 4

Provides a treasure hunt for exploring the joys of 4-H and discovering interests.

Helpers Guide



Leadership: Step Up To Leadership

Grades 3-12 www.n4hccs.org/leadership

1. MY LEADERSHIP WORKBOOK: Grades 3-5. Practice leadership through this action-packed workbook. From “putting yourself in someone else’s shoes” to “gathering up loose ends” and “freezing a conflict”, learn about individual leadership skills.

2. MY LEADERSHIP JOURNAL: Grades 6-8. Continuing on the leadership journey, you learn the importance of understanding yourself as a leader.

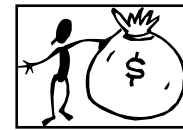
Teamwork is emphasized as you walk the teamwork tightrope and search for team talent. You are encouraged to keep a “journal” of your leadership journey.

3. MY LEADERSHIP PORTFOLIO: Grades 9-12. Focus on “real life” leadership activities. You are encouraged to develop a portfolio of your leadership experiences. Through self-directed activities you will assume greater leadership responsibilities.

Leadership: Mentor Guide 1 (grades K-5)

Leadership: Mentor Guide 2 (grades 6-12)

FAMILY & CON- SUMER SCIENCES



Consumer Education

CONSUMER SAVVY Grades 3-12

www.n4hccs.org./consumersavvy

1. THE CONSUMER IN ME- Experience what it means to be a consumer through saving, spending and sharing.

2. CONSUMER WISE- Realize the influence of peer pressure and the power of advertising as you learn to make independent decisions when shopping.

3. CONSUMER ROADMAP- Navigate the potholes in the marketplace en route to becoming a savvy consumer.

Consumer Savvy: Group Helpers Guide

FINANCIAL CHAMPIONS Grades 7-9

www.n4hccs.org/financialchampions

1. MONEY FUNDAMENTALS- Learn money management skills, including deciding whether to make a purchase, determining whether you can afford it, and living within a spending plan.

2. MONEY MOVES- Learn about wants and needs, values, goal-setting, communications, ways to use and save money, the benefits and drawbacks of credit, advertising influences, consumer decision making and how to select financial services.

Financial Champions: Group Helpers Guide

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ENTREPRENEURSHIP Grades 7-12

www.n4hccs.org/

BE THE E: Discover the world of Entrepreneurship with this multilevel guide. Activities assist you in learning what it takes to be an entrepreneur, and whether you have “The Right Stuff” to meet the challenges. Practice the skills needed to function successfully as an entrepreneur and explore types of businesses, products and pricing, marketing, partnership, agreements and contracts. Create a business plan and start your own business.

MOWING FOR MONEY Grades 8-12. Learn how to start a small business in lawn care. This project will teach you the basics of safe and efficient lawn equipment operation, maintenance and repair; approaches toward growing the best looking lawn possible; and the steps required to set up your own lawn care business.

Mowing for Money, a Dollar & Sense Guide to Lawn Care

CHILD DEVELOPMENT Grades 3-12

www.n4hccs.org/

1. **GROWING ON MY OWN** - Explore how children grow and develop, how to inspect toddlers’ toys and make their home hazard-free. Learn more about their roles in life, how to handle their emotions and accept differences in others.

2. **GROWING WITH OTHERS** - Learn about self-care, rules, responsibility and safety and babysitting. Learn to work with others and gain awareness of common dangers in a child’s world.

3. **GROWING IN COMMUNITIES**- Explore child development careers, gain experience as a teacher or coach, participate in a community service project and learn that children with different abilities have different needs.

Child Development: Helpers Guide

CLOTHING

[Skill-a-thon Study Guide \(Beginners\)](#) †

[Skill-a-thon Study Guide \(Intermediate\)](#) †

[Skill-a-thon Guide & Contest \(Advanced\)](#) †

[Skill-a-thon Study Guide \(Leaders\)](#) †

Let’s Sew: A Beginner’s Sewing Guide -Resource

www.n4hccs.org/

Sewing Expressions

1. **UNDER CONSTRUCTION**- Youth have opportunities to create garments and unique costumes.

2. **FASHION FORWARD**- Youth develop buying strategies, accessorizing, apparel design and recycling skills.

3. **REFINE DESIGN**- Youth learn recycling, starting a business and the influences of clothing

Sewing Expressions: Group Helpers Guide

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HEALTHY LIFESTYLE CHOICES

Keeping Fit and Healthy

HEALTH Grades 3-12 www.n4hccs.org/

1. **FIRST AID IN ACTION:** Practice first aid skills to treat cuts, scrapes, nosebleeds and bee stings. Learn how to respond to someone who is choking or has broken a bone, assemble a first aid kit, and interview members of the medical profession.

2. **STAYING HEALTHY:** Use a self-assessment tool to identify personal talent areas – “smarts”, explore hygiene, nutrition and physical activities, and share what you discover with a new appreciation of personal interests and talents.

3. **KEEPING FIT:** Design your own personal fitness plan and track it using your own fitness file. Through interviews and personal experiences discover the benefits to being fit as you practice making decisions, managing yourself, and speaking with others.

Nutrition, Foods & Cooking

FOODS Grades 3-12 www.n4hccs.org/

A. **SIX EASY BITES:** Prepare foods, do fun experiments and go on fact-finding missions.

B. **TASTY TIDBITS:** Learn healthy food selection, food safety and smart food purchasing through exciting and challenging activities.

C. **YOU’RE THE CHEF:** Explore food careers and learn food preservation and preparation through activities.

D. **FOODWORKS:** Learn about foods and more advanced food preparation. Have access to the fun new web site where you can download recipes from across the country and around the world.

Foods Group Helpers Guide

MICROWAVE MAGIC Grades 3-12

www.n4hccs.org/microwavemagic

A. **BAGS OF TRICKS:** Engage in activities to understand how the microwave works, learn to use the microwave safely and prepare foods such as scrambled eggs, apples, popcorn treats, fudge and desserts.

B. **MICRO-MAGICIANS:** Activities on understanding watts and prepare foods such as potatoes, vegetables, pudding bar cookies, beans, upside down cake and brownies.

C. **AMAZING RAYS:** Practice more advanced microwave techniques such as shielding, defrosting and browning.

D. **PRESTO MEALS:** Learn techniques such as adapting recipes for the microwave, blanching fruits and vegetables and stacking whole meals.

Microwave Magic: Group Helpers Guide

ENVIROMENTAL EDUCATION

ENTOMOLOGY

[Getting Started in Entomology – Beginning](#)[†]

Collecting & Identifying Insects-Intermediate*

[Working with Insects – Advanced](#)[†]

ENTOMOLOGY Grades K-6

www.n4hccs.org/entomology

1. CREEPY CRAWLIES: Learn how to make an insect collection, where to look for insects and how to identify and classify insects.

2. WHAT’S BUGGING YOU? With activities like Bugs on Canvas, Designer Bugs, How Sweet It Is, Bobby Buggy Bumpers and Peek a Boo Bug, every experience is a new adventure. Develop communication skills, identify insects to order, design insects, complete an insect collection table, plan an insect collection trip, rear meal worms, explore insect legs and collect insects with an extractor.

3. DRAGONS, HOUSES AND OTHER FLIES: Keep an insect journal, determine the effect of food on meal-worm larvae production, test ant food preferences, conduct honey bee learning experiments, organize an insect club, use an insect key, plan a butterfly garden, record insect observations, identify insect mouth types, rear mosquitoes and make a spider web display.

Entomology: Group Helpers Guide

EXPLORING YOUR ENVIRONMENT

Grade 3 - 12 www.n4hccs.org/environment

1. ECO-WONDERS- Experience the four elements of life, connections among living things and how all plants and animals are affected.

2. ECO-ADVENTURES- Engage in encouraging and challenging outdoor activities.

3. ECO-ACTIONS- Develop scientific thinking and processing skills in relationship to basic ecological concepts

Exploring Your Environ: Group Helpers Guide

FISHING FOR ADVENTURE Grades 3-12

www.n4hccs.org/fishing

1. TAKE THE BAIT- Have fun tying knots, casting to a target, rigging various lines, selecting tackle, identifying where the fish are, using different baits and lures, identifying fish, cooking fish and naming internal and external fish parts.

2. REEL IN THE FUN- Locate fishing information on the web, cast using a spinning and fly rod and bait casting reel, practice responsible citizenship, research fishing regulations, decorate a lure, sew a fly wallet, tie an artificial fly and test a water sample.

3. CAST INTO THE FUTURE- Develop your leadership skills as well as your fishing skills as you take a friend fishing, demonstrate how to disassemble and reassemble a fishing reel, design and conduct a sport fishing skillathon, make artificial flies, design and craft a lure, customize tackle, build and use a kick net, respond to ethical situations and interview a professional fisherman. *Fishing for Adventure: Group Helpers Guide*

GARDENING Grades 3-12

www.n4hccs.org/gardening

1. SEE THEM SPROUT- Learn to plant a garden as well as plant the seeds, use garden tools safely and harvest crops. Autograph pumpkins, grow plants from roots, make a rain gauge and roast pumpkin seeds.

2. LET’S GET GROWING- Use transplants in a garden, start seeds indoors, observe how plants respond to light, and grow new plants from plant parts. Make a worm box, freeze vegetables and make a compost pile.

3. TAKE YOUR PICK- Learn to test and improve soil, extend the growing season, cross pollinate flowers and assist others in garden projects. Explore photosynthesis, plant, harvest and dry herbs, and learn to pickle vegetables.

4. GROWING PROFITS- Explore double crop planting methods, the effects of pollution on plants, plant genetics, pest management, and starting a plant business. Learn how to construct raised beds for planting, investigate hydroponics and spuds in space.

Gardening Helpers Guide

Gardening Exhibit Guide

OUTDOOR ADVENTURES

www.n4hccs.org/outdooradventures

Grades 3 - 12

1. Hiking Trails- Learn shelter selection, LEAVE NO TRACE camping skills, outdoor cooking, environmental awareness and appreciation.

2. Camping Adventures- Experience planning and taking a day hiking trip. Activities include clothing needs, what to pack in a daypack, reading topographic maps and orienteering skills.

3. Backpacking Expedition- Focus on being on the trail for an extended period of time. Consider clothing needs, setting up tents, using backcountry stoves, basic nutritional needs, menu planning for multi-day hikes, and personal hygiene and basic first aid.

Outdoor Adventures: Group Helpers Guide

Books listed in italics are leader’s guides; †These are available on-line;

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FORESTRY in Florida

Adopt A Tree

[Trees and Me 2](#)[†]

[Florida's Fabulous Forests 3](#)[†]

[Forest Resources Leaders Guide](#)[†]



FORESTRY

1. FOLLOW THE PATH - Explore types of trees and tree parts, characteristics of various forests, what forests need to grow and thrive and the products people get from trees and forests.

2. REACH FOR THE CANOPY - Closer look at the inner-workings of trees, explore forest change, learn about forest health concerns and discover the health benefits that trees have on people

3. EXPLORE THE DEEP WOODS - Examine and distinguish types of trees, look at forests on a global scale, learn to care for trees and think about how to conserve forests.

Forestry: Group Helpers Guide

MARINE SCIENCE for Grades 7-12

Coastal Marine Environmental Issues This is an extended case study for the investigation and evaluation of marine issues of the gulf coast and Florida panhandle. You will study coastal marine ecosystems, biodiversity and coastal marine ecosystems, identify and analyze coastal marine issues, investigate coastal issues, and learn about citizenship related to the environment. This is not designed to be completed in a year.

Grades 3 - 12

[Aquaculture & the Aquarium](#)[†]

[Fins & Scales](#)[†]

Starting & Maintaining a Marine Aquarium*

[Starting & Main. a Marine Aquarium Record](#)[†]

[Life in the Sea \(project guide for members\)](#)[†]

[Life in the Sea \(project record\)](#)[†]

[Life in the Sea \(Leaders Guide\)](#)[†]

[Wetlands Project Manual](#)[†]

[Wetlands Project Record](#)[†]

WILDLIFE

[The World Around Us 4-H Wildlife Unit 1](#)[†]

[The World Around Us 4-H Wildlife Unit 2](#)[†]

Exploring the Outdoors

Bird Study (4H 287)

SHOOTING SPORTS

Air Rifle - (To Be Released Soon)

Archery - Need Adult to Be Certified Leader

SCIENCE, ENGINEERING & TECHNOLOGY (S.E.T.)

AEROSPACE Grades K-12 www.n4hccs.org/

1. PRE-FLIGHT- Youth and their helpers have a great time working together as youth learn how to talk like a real astronaut, find out how an airplane works and have fun at the same time. (K-2)

2. LIFT-OFF- Blast off with this guide as you fly kites, participate in airplane contests, launch rockets, explore space, make a glider, construct a straw rocket and experience disorientation.

3. REACHING NEW HEIGHTS- Soar as you learn to fly an airplane, launch a rocket, conquer space and become an astronaut or pilot. Controlling flight direction and experiencing shuttle technology add to the fun. Make a shuttle on a string, a Japanese kite, a hang glider and a control panel of an aircraft.

4. PILOT IN COMMAND- Create your own altitude tracker, determine the most fuel efficient routes between airports and make a box kite. Explore pilot certification requirements, evaluate past and present navigation systems, and learn about airport issues in your community

BICYCLE ADVENTURES

Grades K - 6 www.n4hccs.org/

1. BICYCLING FOR FUN-Beginning riders learn the essentials for getting started safely and successfully. This guide contains creative hands-on activities and connections to DVD and Web resources. Youth begin exploring the basics toward lifelong cycling. Activities help you learn safety, road rules and planning for a pleasant ride. 40 pages

2. WHEELS IN MOTION- Youth who are riding learn advances skills as they explore their surroundings. This guide includes activities that will last a lifetime. Youth choose a bike that's right for them and practice bike maintenance and road rules to make their ride safe and fun.

ELECTRIC EXCITEMENT Grades 4-12

www.n4hccs.org/

1. MAGIC OF ELECTRICITY- Explore why certain things insulate from electricity better than others, the effect magnetism has on various substances, how to build a flashlight, build and test a compass, build an electromagnet and electric motor.

2. INVESTIGATING ELECTRICITY- Decoding circuit diagrams, sending messages by Morse code and building three way switches are featured. Build circuits and test voltages, build a rocket launcher and a burglar alarm. This unit is designed for youth who understand magnetism, electron flow and circuit design.

Electric Excitement continued next page

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3. WIRED FOR POWER- Build on skills learned in Units 1 and 2 plus learn some new ones, such as measuring electrical usage, replacing electrical switches and determining electrical loads. Evaluate different light bulbs and test for electrical power.

4. ENTERING ELECTRONICS- Learn about diodes, transistors, LED's, photocells, SCR's, IC's and amplifiers. This guide is designed for intermediate to advanced learners. An understanding of DC circuits, voltage, amperage, current flow, polarity and some soldering is needed.

GEOSPATIAL Grades 3 - 12 www.n4hccs.org/

1. GETTING OUT - Where in the world are you? Introduced to new ways of thinking about geographic positions, navigational tools (GPS, compasses, maps and globes) identifying locations, measuring distances and more

2. ON THE TRAIL - Maps, Maps everywhere! Learn to collect data, combine data with geographical positions and make maps!

3. REACHING YOUR DESTINATION—Can maps solve problems? Can they lower traffic congestion, pinpoint pollution sources, boost tourism, Advanced learners find solutions to problems like these as they develop and use multi-layered maps to solve complex problems within their own communities.

G2 Helpers Guide

EXPLORING 4-H ROBOTICS (NOTE: Lego Mindstorms product is necessary for use) Grades 4-8 www.n4hccs.org/

1. Robotics EXPLORER- Programming concepts are introduced using the RoboLab language. Youth learn what a robot is, how to build one and how to program the robot to use sensors to interact with its environment. Working collaboratively as members of a team, they make decisions and organize information to complete the 14 activities. Note: The Robotics and You CD contains support materials needed for the activities in this book.

2. Robotics PROBE- More advanced topics in both programming and mechanics take shape in this second level book. Youth advance their programming techniques, use subroutines and variables to achieve more precise movements of their robots and build their own custom functions. Youth practice and develop creative thinking, decision making and leadership skills. Note: the CD contains support materials needed for the activities in this book.

SMALL ENGINES Grades 3-12

www.n4hccs.org/

1. CRANK IT UP: Focus on basic small engine knowledge, study external engine parts, discover tools of the trade and learn about the concepts behind what makes small engines work. Explore the uses of small engines and safety issues.

2. WARM IT UP: Explore the internal parties of engines, learn about engine sizes, compression ratios, seasoning your engines and safety issues. Learn about occupational possibilities and about starting your own business.

3. TUNE IT UP: Tear down and rebuild an engine, use diagnostic tools, research rules and regulations about using small engine machines and select replacement engines.

Small Engines Helper's Guide

PROJECT WINGS - Florida 4-H & Natural History Museum

Learn the science of Butterflies. Identification, life cycle, habitats, conduct a transect count.

Helpers guide

Project Selection

Considerations:

- ◆ Select a project you like
- ◆ Select a project that can be completed.
- ◆ Consider the money it will take. Can parents help?
- ◆ Consider the space and equipment you have at home.
- ◆ Consider the time it will take.
- ◆ Consider parental support for the project.
- ◆ Be aware of the opportunities for growth in this project.
- ◆ A 4-H project should be fun, serve a purpose and be worth the effort.

Equal Opportunity/Affirmative Action Institution

Upon request, for individuals with documented print related disabilities, this publication is available in alternative format. Contact the Baker County Extension Service for more information. For individuals with disabilities requiring special accommodations, please contact the Baker County Extension Service at least 5 working days prior to the program in order for proper consideration to be given to the request, For TDD service, call the Florida Relay Service Center at 1-800-955-8771

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CLASSROOM ENRICHMENT PROGRAMS

AGRICULTURAL LITERACY

AFTERSCHOOL AGRICULTURE Grades 3 - 5

www.n4hccs.org/

Acres of Adventures 1- Learn by doing agriculture activities Units: Plant Detectives, Mystery Agriculture, All about Agriculture, Fast Food Agriculture
Acres of Adventure 2 - Lessons plans units: Insect invasion, Farm Physics, Agriculture Gone Wild, Frontier Living

EMBRYOLOGY IN THE CLASSROOM

Grades 2-8 www.n4hccs.org/

Learn how chicks are hatched and cared for. A small incubator is available on loan from the 4-H Office for you to use in actually hatching your own chicks.

HATCHING CLASSROOM PROJECTS

HELPERS GUIDE BEGINNER -

EXPERIMENTS IN POULTRY SCIENCE -

HELPERS GUIDE ADVANCED

WORKFORCE READINESS

Grades 6-9

www.n4hccs.org/

GET IN THE ACT! TAKE 1 YOUTH GUIDE: This innovative program is designed to help middle school youth explore what it takes to get their first “paying” job. This interactive experience, combining CD and activity guide formats with activities presented in the context of a movie set, helps youth recognize their learning styles and personal qualities. Youth make “real life choices” using video scenarios in the on the job choices game. Youth discover how to assess job possibilities in the community and create job scenarios.
Get in the Act Helpers Guide

PLANT SCIENCE

DOWN TO EARTH - GARDENING IN THE CLASSROOM Grades 4 - 6

Use gardening as a means to explore plant growth and development. Through this hands on, minds on program, youth learn the basics of botany, the gist of gardening, the essentials of ecology and much more. Through gardening, youth stimulate their senses and cultivate science process and life skills. By gathering data via the scientific method, youth feel a sense of pride and responsibility

SCIENCE, ENGINEERING & TECHNOLOGY

SCIENCE DISCOVERY SERIES Grades 3 - 6

Lessons are fun and interesting to teach as they are for youth to experience. Each lesson plan outlines subject matter and life skill objectives, materials needed, background information, a lesson outline containing detailed instructions, optional activity reference and resource3s, glossary and evaluation instrument (Developed by Rutgers, The State University of New Jersey)

Science Discover 1—Explore whales, rocks and minerals, water quality, rtrees and recycling (grades 3 - 5)

Science Discovery 2 - Explore weather, spiders, oceanography, trees and astronomy (grades 4 - 6)

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