



Juneau County 4-H Project Guide

This is your guide.... A 4-H project is an area 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 clothing to small engines.

So how do you know what projects are available to you? Your club's general leader can tell you what projects and resources are available in your county.

Remember, you will learn more than "subject matter" as you complete your projects. You will learn many "life" skills that you will 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!

How to Select 4-H Projects

4-H members . . . First, make a list of the things you like to do or want to learn more about. Talk over your list with your parents, leaders and friends. They may recognize some special things you are good at that you do not even realize you do well.

Then compare your list with the projects described in this guide and any other project list you may receive from your county. Ask yourself if you have the equipment, money and time to do the projects that sound interesting.

If this is your first year in 4-H, concentrate on doing only two or three projects well. Usually you can spend more than one year in a project unit because there are enough ideas there to span two or three years.

Understand that there may not be a leader for a project you have enrolled in.

Enrolling in Juneau County 4-H...

The enrollment process is entirely online. You can enroll at <https://wi.4honline.com/>



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If you need any assistance with enrolling in 4-H or selecting projects, feel free to contact your 4-H Club

General Leader or contact:

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YOUTH LEADERSHIP

AMBASSADORS



YOUNGER MEMBERS

AFTERSCHOOL PROJECTS

CLOVERBUDS

What you can do in this project:

- Learn about your 4-H club or group, activities and events
- Begin developing different skills, e.g., working with others
- Explore your community and working together
- Discover areas of project interest
- Share with others what you have learned

Grade: K-2

Resources: *Wisconsin 4-H Cloverbud Learning Activities*
4H710GPM, *The Big Book of 4-H Cloverbud Activities*

CLOVERBUDS YTH LDR

Resources: *Essential Elements for Cloverbud Programs*
Cloverbud Leader Guide

EXPLORING

What you can do in this project:

- Learn about the 4-H program
- Sample a variety of projects offered in 4-H
- Learn about yourself and others

Grade: 3

Resource: 08171, *Exploring the Treasures of 4-H*



SERVICE LEARNING & CITIZENSHIP

CITIZENSHIP

What you can do in this project:

- Discover and discuss public issues
- Plan a project to change or improve your community

Grades: 4-12

Resource: 08153, *Citizenship Adventure Kit*

HISTORY & HERITAGE



SELF-DETERMINED

SELF-DETERMINED

What you can do in this project:

- Create your own project or expand on an old one
- Select a project, develop a plan, identify resources
- Carry out and evaluate your plan

Grades: 3-13

Resource: 4H272, *Designing Your Own Project*



ANIMAL SCIENCES

BEEF

What you can do in this project:

- Identify various beef breeds
- Identify parts of a beef animal
- Halter-break and show a calf
- Fit and judge beef cattle
- Recognize and raise a healthy animal
- Present oral reasons during judging
- Learn about feed ingredients, behavior and parasites
- Study how to do nose-print identification
- Learn beef carcass composition and retail meat cuts
- Explore selection and judging
- Learn about careers, health, reproduction, etc.
- Discover how to market your animal and by-products

Resources: 08143, *Bite into Beef*

08144, *Here's the Beef*

08145, *Leading the Charge*

CAGE BIRDS

CATS

What you can do in this project:

- Select a cat
- Identify cat breeds
- Name the parts of a cat
- Handle and groom a cat
- Care for its health
- Create a budget
- Learn about cat senses and sounds
- Explore tricks to teach a cat
- Traveling with a cat
- Learn about feeding and emergency care
- Detect signs of illness and health issues
- Explore veterinary procedures
- Learn reproduction and cat body systems
- Learn showmanship and cat behavior
- Explore community laws and animal welfare

Resource: 08148, *Purr-fect Pals*

08149, *Climbing Up!*

08150, *Leaping Forward*

CAVIES

DAIRY

What you can do in this project:

- Identify dairy breeds
- Study and identify parts of the dairy cow
- Learn how to select quality dairy calves
- Fit and show a calf
- Identify stages of calving and care
- Assemble tools needed for packing a show box
- Learn about housing and hay quality
- Learn about milking and food safety
- Explore ways to keep an animal healthy
- Observe animal behavior
- Practice mastitis detections

- Learn to balance rations
- Practice pregnancy detection and delivery of a calf
- Learn body-conditioning scoring
- Promote dairy products
- Explore various dairy industry careers

Resources: 08161, *Cowabunga*
 CANADA1, *Showmanship: Leading to Win*
 LDR, *Lifetime Dairy Record*
 08162, *Mooving Ahead*
 CANADA2, *Preparing to Lead*
 MPA, *Managerial Project Agreement*
 08163, *Rising to the Top*
 HMR, *WI 4-H Dairy Heifer Mgmt. Record*

DOGS

What you can do in this project:

- Learn basic skills for dog care and training
- Discover different dog breeds
- Study and identify dog body parts
- Learn how to keep a dog healthy and groomed
- Explore dog health and nutrition
- Discover genetic problems and population control
- Learn showmanship and training techniques
- Learn about show-ring ethics
- Investigate responsible breeding
- Care for geriatric dogs
- Train service dogs
- Explore careers related to dogs

Resources: 08166, *Wiggles and Wags*
 4H436, *The Basics of Training Your Dog*
 08167, *Canine Connection*
 4H439, *Dog Obedience – Novice & Beyond*
 08168, *Leading the Pack*
 4H437, *A Guide to Showmanship*

EXOTIC ANIMALS

DAIRY GOAT

What you can do in this project:

- Gain hands-on experiences in the goat project
- Select, manage, fit and show goats
- Learn responsible goat ownership
- Learn to keep your goat healthy
- Feed your goat for maximum production
- Prepare for kidding
- Develop judging skills
- Learn how to milk a goat properly
- Learn about genetics, diseases and breeding
- Study body-condition scoring and linear appraisal
- Understand bio-security and prevention measures
- Gain leadership and explore career opportunities

Resource: 08352, *Getting Your Goat*
 08353, *Stepping Out*
 08354, *Showing the Way*

MEAT GOAT

What you can do in this project:

- Identify meat goat breeds and parts
- Learn to select a good animal
- Feed and care for a meat goat

- Develop a budget for a meat goat project
- Recognize meat goat diseases
- Select a veterinarian and purchase breeding stock
- Understand reproduction cycle and keep records
- Fit and show meat goats
- Learn to control diseases
- Understand bio-security and quality assurance
- Formulate rations
- Evaluate goat pastures

Resource: 07909, *Just Browsing*
 07910, *Get Growing with Meat Goats*
 07911, *Meating the Future*

PYGMY GOAT

HORSE

What you can do in this project:

- Learn horse behavior and terms
- Study breeds and identify body parts
- Saddle, groom and bridle your horse
- Practice horse safety and horse selection
- Practice horsemanship and judging
- Understand horse selection and training
- Learn about tack, feeding and diseases
- Practice showing a horse and trail riding
- Explore horse breeding, genetics and heredity
- Understand horse diseases and prevention
- Learn about fencing, pasturing and housing
- Explore horse-related careers
- Train a horse
- Practice a round-pen workout
- Learn English and Western style bridles
- Understand equitation and riding styles
- Learn to set goals
- Compare costs of show clothing
- Present your horse in showmanship classes
- Rate your showmanship skills
- Practice proper show ethics
- Explore different breeds and characteristics
- Learn conformation, selection and nutrition
- Practice harnessing and hitching

Resource: 01518Y, *Giddy Up & Go*
 CO200, *Horses & Horsemanship*
 CO201, *Horse Science*
 01519Y, *Head, Heart & Hooves*
 01520Y, *Stable Relationships*
 01521Y, *Riding the Range*
 01522Y, *Jumping to New Heights*
 4H181, *Draft Horse*

HORSELESS HORSE

What you can do in this project:

- You do *not* need a horse in this project
- Explore horse behavior, terms and breeds
- Identify body parts
- Learn grooming, saddling and bridling
- Learn about safety and equipment
- Learn about horsemanship
- Explore judging and oral reasons

- Learn selection, training and showing
- Practice trail riding skills
- Explore horse breeding, genetics and heredity
- Understand horse diseases and prevention
- Learn about fencing, pasturing and housing
- Explore horse-related careers

Resource: 01518Y, *Giddy Up & Go*
 01519Y, *Head, Heart & Hooves*
 01520Y, *Stable Relationships*

LLAMAS

PETS

What you can do in this project:

- Explore your favorite pet or select a pet
- Identify pet body parts
- Learn to provide a safe environment
- Design a space for your pet
- Explore animal digestion and feeding
- Shop for pet supplies
- Determine the animal's sex and proper health
- Study pet behavior and communication
- Explore pet products
- Teach others about pets
- Understand how genetics work
- Explore animal welfare issues

Resource: 06359, *Pet Pals*
 06360, *Scurrying Ahead*
 06361, *Scaling the Heights*

POULTRY

What you can do in this project:

- Identify poultry breeds
- Learn parts of the bird
- Learn parts and functions of the egg
- Learn how to select and handle poultry
- Fit and show poultry
- Discover bantam breeds and breed characteristics
- Learn how to get started raising bantams
- Select and mate bantams
- Incubate and rear their young
- Learn to feed and house birds
- Fit and show bantams
- Observe a healthy flock
- Select and judge broilers
- Discover how an egg is formed
- Prevent poultry diseases
- Discover how chicks imprint
- Organize a judging clinic
- Manage a laying flock
- Discover qualities of eggs
- Handle poultry products safely
- Process a chicken

Resources: 06363, *Scratching the Surface*
 CIR878, *From Egg to Chick*
 NCR209, *Bantams*
 06364, *Testing Your Wings*
 A2880, *Chicken Breeds & Varieties*
 06365, *Flocking Together*
 MA, *Meat Animal Project Record*

RABBITS

What you can do in this project:

- Learn about selecting and handling rabbits
- Identify rabbit breeds and body parts
- Explore health issues and feeding
- Learn to select show rabbits
- Give oral reasons and judge rabbits
- Learn to tattoo
- Detect diseases
- Keep records of animals
- Learn about breeding and genetics
- Design a rabbitry
- Market rabbits
- Learn about disease prevention and rabbit registration

Resource: 08080, *What's Happening?*
 08081, *Making Tracks*
 08082, *All Ears*

SHEEP

What you can do in this project:

- Identify sheep breeds and body parts
- Observe sheep behavior
- Identify uses of wool and other by-products
- Fit and show sheep
- Learn to identify sheep parasites
- Promote meat safety
- Judge wool
- Diagnose sheep diseases
- Use medications safely
- Explore careers
- Set sheep production goals
- Plan sheep related activities
- Market sheep products and teach others
- Plan a judging contest
- Explore careers

Resources: 06367, *Lambs, Rams and You*
 06368, *Shear Delight*
 06369, *Leading the Flock*

SMALL ANIMALS

SWINE

What you can do in this project:

- Identify swine breeds, feeds and animal parts
- Practice judging market hogs
- Identify pork meat cuts
- Practice fitting and showing a hog
- Make a swine health care plan
- Identify diseases
- Assemble tack and pack a show box
- Plan and organize a facility expansion
- Complete a plan for a new pork product
- Learn to make breeding and culling decisions
- Judge a class of breeding gilts
- Design a preventative herd health plan
- Manage a feeding program

Resources: 08065, *The Incredible Pig*
 4H412, *Judging Breeding & Market Swine*
 08066, *Putting the Oink in the Pig*
 08067, *Going Whole Hog*

TROPICAL FISH

VETERINARY SCIENCE

What you can do in this project:

- Learn different breeds of animals
- Interpret animal behavior
- Identify feed nutrients
- Describe animal life stages and systems
- Create health records for your animal
- Conduct food safety experiments
- Discover importance of immunity and bio-security
- Consider ethics and animal welfare
- Investigate the importance of genetics
- Understand diseases that spread from animals to humans
- Learn about diversity of veterinary careers

Resources: 08048, *From Airedales to Zebras*
08049, *All Systems Go*
08050, *On the Cutting Edge*



COMMUNICATION ARTS

COMMUNICATIONS

What you can do in this project:

- Engage in non-verbal, verbal and written activities
- Strengthen your personal communication skills
- Encrypt codes, write songs and give directions
- Learn to become a confident communicator
- Present oral reasons, plan and present speeches
- Practice making good first impressions
- Polish your communication skills
- Explore communication careers
- Write résumés and interview for a job

Resource: 08644DD, *Communications: Module 1*
08645DD, *Communications: Module 2*
08646DD, *Communications: Module 3*

CREATIVE WRITING

What you can do in this project:

- Explore language and creative expression
- Stimulate your creativity and self-expression
- Enrich your joy of book reading

Grades: 3-12

Resources: COMM01, *Creative Wordworking*
COMM03, *Crazy About Books Reading Circle*

DEMONSTRATIONS

SPEAKING

What you can do in this project:

- Plan, practice and present an effective speech
- Gain confidence in public speaking
- Plan, practice and present an effective demonstration

Grades: 3-12

Resources: COMM02, *4-H Public Speakers Handbook*
COMM06, *4-H Public Speaking Opportunities*



PERFORMING ARTS

MUSIC

What you can do in this project:

- Gain a greater appreciation for music
- Explore different ways to participate
- Listen, perform and compose various types of music
- Teach others and make instruments

Grades: 3-12

Resource: 4H620MP, *Youth and 4-H Music Project Guide*

THEATRE ARTS

What you can do in this project:

- Study acting, sound, movement, voice and speech
- Learn different ways to play a scene
- Try pantomime, clowning and improvisation
- Become a puppeteer
- Investigate the history of puppets
- Explore types of puppets and puppet characters
- Use puppets in community service work
- Plan and present a puppet show
- Study costumes, makeup, stage sets, props and sound
- Learn stage management
- Create sounds and disguises
- Make up your own character and bring it to life

Resource: 08445, *Theatre Arts Beginner*
08446, *Theatre Arts Intermediate*
08447, *Theatre Arts Advanced*
08448Y, *Theatre Arts Journal*



VISUAL ARTS

ART

What you can do in this project

- Learn art through cutting, pasting and drawing
- Explore sculpting and constructing with fibers
- Paint and print using different materials
- Explore art techniques, culture and history of art
- Learn artistic challenges in drawing, fiber arts and sculpting
- Develop graphic design techniques

Resources: 4H592, *Get Started in Art Curriculum*
08140, *Advanced Visual Arts: Sketchbook Crossroads*
08141, *Advanced Visual Arts: Portfolio Pathways*

CERAMICS

CREATIVE/CROSS STITCHERY

DRAWING & PAINTING

What you can do in this project:

- Learn to draw with pencil, chalk, crayon, etc.
- Learn to blend and shade
- Make surface rubbings
- Paint with watercolor, oil and acrylics
- Mix colors
- Mat and frame your artwork

Grades: 3-12

Resource: 4H169, *Drawing & Painting*

JEWELRY MAKING

LEATHERCRAFT

What you can do in this project:

- Learn about the characteristics and uses of leather
- Use tools and equipment
- Make patterns and original designs
- Explore various leathercraft techniques

Grades: 3-12

PHOTOGRAPHY

What you can do in this project:

- Explore the camera and learn to use it properly
- Learn the basics of lighting and composition
- Learn the use of different light sources
- Shoot photos that tell a story
- Learn about camera adjustments
- Learn about film speed, shutter speed and aperture
- Take silhouettes, candid, action shots and others
- Learn about wide-angle and telephoto lenses
- Explore the use of light meters and studio lighting
- Experiment with special effect photos
- Take still life photos and portraits

Resource: 01920Y, *Photography Basics*
01903Y, *Next Level Photography*
01904Y, *Mastering Photography*

POTTERY

PRINT MAKING

TIE DYING

WOOD ART



FAMILY, HOME & HEALTH

CHILD DEVELOPMENT

HOME ENVIRONMENT

What you can do in this project:

- Learn about home care
- Learn to sand and finish a simple wood item
- Make small home decorative items for the home
- Explore the world of home interior design
- Focus on the application of design fundamentals
- Learn about purchasing furnishings for the home
- Restore or make a heritage item

Resource: 4H425, *Exploring Your Home*
4H465, *In My Home*

HEALTH

What you can do in this project:

- Practice first-aid skills to treat basic injuries
- Learn how to respond to someone who is choking
- Assemble a first-aid kit
- Identify your personal talent areas in health care
- Explore hygiene, nutrition and physical activities
- Share what you learn with others

- Design your own fitness plan
- Track your plan and review your progress
- Interview individuals in the health and fitness fields

Resource: 08174, *First Aid in Action*
08380, *Health Rocks! Curriculum 1 – Beginning*
08175, *Staying Healthy*
08381, *Health Rocks! Curriculum 2 – Intermediate*
08176, *Keeping Fit*
4H359, *Your Thoughts Matter: Navigating Mental Health*

INTERGENERATIONAL PROGRAMS

What you can do in this project:

- Learn to understand older people better
- Let them share their stories and experiences
- Explore what happens as you grow older

Grades: 5-12

Resource: NCR591, *Walk in My Shoes Member Guide*



FOODS AND NUTRITION

FOOD PRESERVATION

What you can do in this project:

- Learn the basics of preserving food safely
- Use UW-Extension Safe Food Preservation Series
- Continue learning food preservation techniques
- Use UW-Extension Safe Food Preservation Series

Resources: B0430, *Canning Fruits Safely*
B1159, *Canning Vegetables Safely*
B2909, *Making Jams, Jellies & Fruit Preserves*
B3278, *Freezing Fruits & Vegetables*
B2267, *Homemade Pickles & Relishes*
B2605, *Tomatoes Tart & Tasty*
B3345, *Canning Meat, Wild Game, Poultry & Fish*
B3570, *Canning Salsa Safely*

FOODS & NUTRITION

What you can do in this project:

- Learn what is good to eat and how to fix simple foods
- Fix pizza, pancakes, fruit kabobs and granola bars
- Explore why calcium is important to our bodies
- Understand TV commercial messages about food
- Make main dishes, e.g., meatballs, pasta and salads
- Learn to make basic muffins and biscuits
- Learn to change recipes
- Reduce fat content in recipes
- Discover how to store fruit and vegetables
- Learn to evaluate nutrition information and fad diets
- Develop your own exercise program
- Learn how to cook different cuts of meat
- Learn to divide large-quantity packages for family use
- Make baked chicken, breadsticks and stir-fried vegetables
- Learn how to make jelly, bake fish and marinate meat
- Conduct a food activity with young children
- Learn to divide recipes and make substitutions
- Plan menus on a budget

Resource: 07144DD, *Six Easy Bites*
07146DD, *Tasty Tidbits*
07148DD, *You're the Chef*
07150DD, *Foodworks*



CLOTHING AND TEXTILES

CLOTHING

What you can do in this project:

- Identify sewing tools and machine parts
- Thread a sewing machine and identify fabrics
- Select and purchase a pattern
- Sort clothes for laundry and remove stains
- Donate a sewing project
- Identify types of fabric constructions
- Sew different buttonholes and seam finishes
- Use pressing tools and thread a serger
- Research different laundry products
- Use specialized sewing tools or equipment
- Combine patterns to create a design
- Create outdoor wear
- Design and embellish a garment
- Use a computer to print on fabric

Resource: 08060, *Under Construction*
 4H2210, *FUNDamentals: STEAM Clothing 1*
 08061, *Fashion Forward*
 4H2220, *Simply Sewing: STEAM Clothing 2*
 08062, *Refine Design*
 4H2230, *A Stitch Further: STEAM Clothing 3*
 4H2240, *Maker's Guide: STEAM Clothing*
 4H2260, *Beyond the Needle: STEAM Clothing*

CROCHETING

KNITTING

What you can do in this project:

- Discover what to consider when buying yarn or tools
- Learn knitting and finishing techniques
- Correct knitting errors
- Learn how to care for your knitted items

Resource: CC1402, *Knitting Made Easy*



MECHANICAL SCIENCES

BICYCLES – ENG & TECH

What you can do in this project:

- Learn the essentials for getting started safely
- Explore the basics toward lifelong cycling
- Learn safety, road rules and planning for a pleasant ride
- Choose a bike that's right for you
- Practice bike maintenance
- Learn road rules

Resource: 08334, *Bicycling for Fun*
 08335, *Wheels in Motion*

COMPUTERS

What you can do in this project:

- Learn about hardware, software and components
- Explore how computers work
- Learn the various programs and their features
- Visit the project's interactive website
- Build and repair a computer
- Identify the components and how they work together

- Learn to upgrade and create connections
- Install operating systems
- Discover how to create and manage networks
- Make decisions about network management
- Explore security issues and troubleshooting

Resource: 08346, *Newbie Know How*
 01606Y, *Comp. Science & Programming with Scratch: 1*
 08347, *Inside the Box*
 01801Y, *Comp. Science & Programming with Scratch: 2*
 08348, *Peer to Peer*
 01802Y, *Comp. Science & Programming with Scratch: 3*

ELECTRICITY

What you can do in this project:

- Understand how to use electricity
- Identify electrical materials
- Wire a simple circuit
- Build a compass, flashlight, switch and electric motor
- Work with electrical equipment
- Learn to read circuit diagrams
- Build a circuit and measure voltages
- Communicate in Morse code
- Develop a basic electrical tool and supply kit
- Understand the symbols on wires and cables
- Locate your home wiring system
- Identify electrical and electronic parts and devices
- Learn how to solder and prepare parts for assembly
- Assemble a circuit using a transistor

Resource: 06848, *Magic of Electricity*
 06849, *Investigating Electricity*
 06850, *Wired for Power*
 06851, *Entering Electronics*

HANDYMAN

LEGOS

MECHANICAL SCIENCES

MODEL ROCKETRY

SCALE MODELS

SMALL ENGINES

What you can do in this project:

- Learn the basics of small engines
- Explore external engine parts and tools
- Identify the uses of small engines and safety issues
- Explore the internal parts of engines
- Learn about engine sizes and safety issues
- Explore different jobs related to small engines
- Tear down and rebuild an engine
- Learn to use diagnostic tools
- Research rules and regulations in using small engines

Resource: 08186, *Crank It Up!*
 08187, *Warm It Up!*
 08188, *Tune It Up!*

Resource: 08189, *Small Engines Helper's Guide*

SNOWMOBILING

TRACTORS

What you can do in this project:

- Learn and identify parts of the tractor
- Understand the basics of tractor maintenance
- Learn about different fuels and engine cooling systems
- Research different safety features and learn safety rules
- Practice farm and tractor safety
- Understand the mechanics of engines
- Identify accessory equipment
- Learn the functions of different operational systems
- Learn types of oil systems and fuel safety
- Learn how to hook on a PTO unit
- Learn tractor and machinery maintenance
- Focus on safety and maintenance
- Identify and work with operational systems

Resource: 4H961, *Starting Up: Getting to Know Your Tractor*
4H962, *Tractor Operations: Gearing Up for Safety*
4H963, *Moving Out: Learning About Your Tractor & Farm Machinery*
4H964, *Learning More: Learning About Agricultural Tractors & Equipment*

WELDING

WOODWORKING

What you can do in this project:

- Learn safety practices when working with wood and tools
- Use various hand tools, e.g., hammer and saw
- Identify types of nails and wood
- Sand and paint a piece of wood
- Identify functions of various tools
- Practice safety techniques
- Select a project to build, e.g., birdhouse or foot stool
- Use a screwdriver and combination square
- Compare different types of hinges
- Enlarge scale-drawn woodworking plans
- Use a hand plane and build a laminated cutting board
- Compare different grades of plywood
- Use a table saw, router, powered circular saw and sander
- Learn to make more difficult joints
- Evaluate exotic and veneer woods
- Create inlays and overlays
- Test various adhesives

Resource: 06875, *Measuring Up*
06876, *Making the Cut*
06877, *Nailing It Together*
06878, *Finishing Up*



NATURAL RESOURCES & ENVIRONMENTAL EDUCATION

BACKPACKING & HIKING

What you can do in this project:

- Plan a day hike, select items and plan the food
- Learn to organize and pack a backpack
- Select appropriate clothing
- Prepare a first-aid kit
- Learn to use a compass
- Prepare for dangerous weather
- Plan a camping trip

- Select equipment, including shelter
- Plan a camping trip menu and prepare supplies
- Practice “Leave No Trace” principles while hiking
- Study various organism habitats
- Select group backpacking gear including a tent
- Design a non-tent backpacking shelter
- Develop a personal conditioning program
- Learn to orient a map and use triangulation

Resource: 08043, *Hiking Trails*
08044, *Camping Adventures*
08045, *Backpacking Expeditions*

BEES

BIRDS

CAMPING

CANOEING

ENTOMOLOGY (INSECTS)

What you can do in this project:

- Learn about insects, their behavior and life history
- Discover the parts of an insect’s body
- Collect and compare insects
- Explore how insects communicate and move
- Learn how an insect protects itself
- Explore insect habitats
- Create an insect display
- Build an insect extractor
- Investigate entomology careers
- Raise and study mealworms and mosquitoes
- Observe a colony of ants
- Make an insect identification key
- Record and collect aquatic insects
- Explore various gardens and habitats

Resource: 08440, *Teaming with Insects: Level 1*
08392, *Project Butterfly Wings Youth Guide*
08441, *Teaming with Insects: Level 2*
08442, *Teaming with Insects: Level 3*

FISHING

What you can do in this project:

- Identify types of tackle
- Organize a tackle box
- Identify different types of bait and fish in your area
- Learn to take proper care of your catch
- Find fishing information on the Internet
- Cast a spinning rod and reel
- Learn to tie fishing knots
- Select a recipe and cook a fish
- Collect and analyze aquatic life
- Learn to reassemble a fishing reel
- Make artificial flies and lures
- Modify fishing equipment
- Investigate fishing careers

Resource: 07598, *Take the Bait*
07599, *Reel in the Fun*
07600DD, *Cast into the Future*

FORESTRY

What you can do in this project:

- Identify forest types, forest products and trees
- Age trees by counting rings
- Understand forest competition
- Find a state forest
- Describe how leaves affect rainfall
- Learn how trees move water from soil to canopy
- Diagram a leaf
- Understand major forest changes and their impact
- Select urban tree planting sites
- Recognize different tree fruits
- Create a community forest map
- Identify forest biomes by continent
- Identify an unknown tree using a tree key

Resource: 08038, *Follow the Path*
08039, *Reach for the Canopy*
08040, *Explore the Deep Woods*

MAPLE SYRUP

REPTILES

WEATHER

WILDLIFE



SHOOTING SPORTS EDUCATION

SHOOTING SPORTS

What you can do in this project:

- Explore different air pistols
- Learn basic safety rules and guidelines
- Learn marksmanship and shooting procedures
- Explore different types of air rifles
- Learn basic safety rules and range commands
- Develop marksmanship
- Learn various shooting positions used in competition
- Learn the fundamentals of archery marksmanship
- Learn rules and safety guidelines
- Make archery equipment
- Shoot with sights and different bows
- Learn the history, philosophy and laws of hunting
- Learn to plan and equip yourself for a hunt
- Explore muzzle loading history
- Study different muzzleloading guns and accessories
- Learn how to clean a muzzleloader
- Learn safety issues
- Explore the history of different types of pistols
- Learn basic safety rules and range commands
- Develop marksmanship and shooting procedures
- Explore rifle history and the different models
- Learn to sight-in your rifle and score targets
- Learn various shooting positions used in competition
- Learn safe handling procedures and range rules
- Learn the basic safety issues with shotgun handling
- Learn shooting fundamentals
- Learn the proper way to carry a shotgun

Grades: 3-12

Ages: Only 12 years old and above can shoot powder burning guns

Resources: 751, *Archery Member Record Book*
753, *Pistol Member Record Book*
750, *Rifle Member Record Book*
752, *Shotgun Member Record Book*



SOIL SCIENCES

CROPS

What you can do in this project:

- Learn about variety selection, germination and planting
- Learn about nutrients, harvesting and storage
- Explore uses and marketing strategies for corn

Resources: 4H440, *Marketing Your 4-H Crops*
RS1, *Record Sheet – Crops Management*

FLOWERS

What you can do in this project:

- Identify flower parts and their functions
- Plant flowers and make flower arrangements
- Give a presentation on flowers
- Prepare a flower exhibit
- Learn about plant needs and soil testing
- Select and start new plants and grow transplants
- Examine plants for insects and diseases
- Judge a flower exhibit
- Design a plant experiment
- Make a landscape plan
- Write instructions on how to force bulbs
- Compare different fertilizers: organic and chemical

Resource: 07162, *Gardening: See Them Sprout*
4H1301A, *Forcing Spring Flowering Bulbs*
A2935, *Evaluating & Judging Flowers & Indoor Plants*
07163, *Gardening: Let's Get Growing*
07164, *Gardening: Take Your Pick*
07165, *Gardening: Growing Profits*

FRUITS

What you can do in this project:

- Produce fruits from apples to berries
- Select the best fruit cultivar for your home garden
- Produce fruits such as pears and grapes
- Learn about different varieties of cultivars

Resources: A1597, *Growing Strawberries in Wisconsin*
A1610, *Growing Raspberries in Wisconsin*
A1960, *Growing Currants, Gooseberries, & Elderberries in Wisconsin*
A1656, *Growing Grapes in Wisconsin*
A2072, *Growing Pears in Wisconsin*

HERBS

HOUSE PLANTS

What you can do in this project:

- Identify plant parts and their functions
- Grow house plants and start a plant from a cutting
- Make a dish garden
- Prepare house plants for exhibit
- Learn about plant seeds and soil
- Select and start new plants and grow transplants

- Plant a terrarium
- Examine plants for insects and diseases
- Take a tour of a horticulture business
- Design a plant experiment
- Teach others how to grow house plants
- Compare different fertilizers: organic and chemical

Resource: 07162, *Gardening: See Them Sprout*
 4H328, *Propagating & Growing House Plants*
 07163, *Gardening: Let's Get Growing*
 07164, *Gardening: Take Your Pick*
 07165, *Gardening: Growing Profits*

VEGETABLES

What you can do in this project:

- Identify plant parts and their functions
- Explore germination and start a plant from a cutting
- Grow vegetables in containers
- Plan an outdoor garden
- Prepare a vegetable exhibit for show
- Learn about plant needs and soil testing
- Start new plants and grow transplants
- Build a compost pile and use mulches
- Grow plants in a cold frame
- Make a site analysis and landscape plan
- Compare organic and chemical fertilizers
- Research various insect control methods

Resource: 07162, *Gardening: See Them Sprout*
 A3306, *Exhibiting & Judging Vegetables*
 07163, *Gardening: Let's Get Growing*
 07164, *Gardening: Take Your Pick*



STEM (Science, Technology, Engineering & Math)

STEM

AEROSPACE

What you can do in this project:

- Build an introductory level rocket
- Compare birds and airplanes
- Make a space helmet
- Build straw and paper rockets
- Learn to read a map
- Identify types of aircraft
- Discover how weather affects flying
- Build and fly a kite
- Make a hot-air balloon model
- Build, exhibit and launch model rockets
- Test a paper hang glider
- Make a flight simulator
- Demonstrate why rockets fly
- Organize a kite-flying contest
- Design and build rockets and box kites
- Build an altitude tracker
- Plan a flight route
- Discover the affects of gravity
- Explore life in space and aerospace careers

Resource: 06842, *Pre-Flight*
 06843, *Lift Off*
 06844, *Reaching New Heights*



OTHER PROGRAMS

SAFETY



INTERNATIONAL PROGRAMS

INTERNATIONAL

What you can do in this project:

- Explore the world around you through maps
- Track weather in various parts of the world
- Make your family tree by talking with relatives
- Explore where your ancestors came from
- Explore culture, fear, and identity
- Stretch your values and frame of reference
- Challenge stereotypes and assumptions
- Connect with global citizenship

Resource: 01501F, *We Connect: A Global Youth Citizenship Curriculum*