



Burnett  
County 4-H  
Project Guide

2016-2017



## WELCOME TO BURNETT COUNTY 4-H!

### *This is your guide...*

A project is an area that you want to learn more about this year. There are projects on just about any topic you're interested in, from art to woodworking, computers to rabbits, and clothing to small engines!

### *Did you know...?*

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: understanding yourself, communicating better, solving problems, making decisions, and working with others.

### *Want more information on a specific project?*

Don't forget to check out the project pages on the Wisconsin 4-H Website at <http://www.uwex.edu/ces/4h/onlinpro/index.cfm>. Here, you'll find descriptions for statewide projects, internet resources, links of interest, suggestions on what to enter in the county fair, state specialist contacts, and much more!

## How to Select 4-H Projects:

### **YOUTH (4-H Members)...**

1. Make a list of the things you like to do or want to learn more about.
2. Share your list with your parents, leaders and friends. (They might know some things you are good at that you didn't even realize!)
3. Compare your list with the projects described in this guide.
4. Ask yourself if you have the equipment, money and time to do the projects that sound interesting.
5. Many projects have more than one level. If you've had a lot of experience in an area, you may want to skip the first level of a project.
6. Many projects have grade recommendations. Keep in mind that these are only recommendations; ask your parent or leader if you are ready for the project.
7. If this is your first year in 4-H, concentrate on doing a couple projects well. Usually you can spend more than one year in a project because there are enough ideas there to span two or three years.
8. Sign up for the projects you have decided on when you enroll in 4-H! Good luck!

### **ADULT VOLUNTEERS...**

If there are several units within a project and you're a leader for only one, choose that unit. If you are a leader for more than one project unit, you will need to enroll in each of those project units. You can be a project leader for members in your club, or the whole county. If you would like to be a resource and help all members in the county in a specific project area, contact the UW-Extension office.

## Enroll in 4-H:

To enroll in Burnett County 4-H online, visit: <https://wi.4honline.com/>. Directions are on the login page. Contact the office for help.

**Have a great year!**

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## Animal Sciences

### BEEF

#### *Beef 1*

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

Grades: 3-5

#### *Beef 2*

What you can do in this project:

- 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

Grades: 6-8

#### *Beef 3*

What you can do in this project:

- Explore selection and judging
- Learn about careers, health, reproduction, etc.
- Discover how to market your animal and by-products

Grades: 9-12

#### *Beef 4*

#### *Beef Leader*

#### *Beef Youth Leader*

### CATS

#### *Cats 1*

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

Grades: 3-5

#### *Cats 2*

What you can do in this project:

- 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

Grades: 6-8

#### *Cats 3*

What you can do in this project:

- Explore veterinary procedures
- Learn reproduction and cat body systems
- Learn showmanship and cat behavior
- Explore community laws and animal welfare

Grades: 9-12

#### *Cats 4*

#### *Cats Leader*

#### *Cats Youth Leader*

### CAVIES

#### *Cavies*

#### *Cavies Leader*

#### *Cavies Youth Leader*

### DAIRY

#### *Dairy 1*

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

Grades: 3-5

#### *Dairy 2*

What you can do in this project:

- Learn about housing and hay quality
- Learn about milking and food safety
- Explore ways to keep an animal healthy
- Observe animal behavior

Grades: 6-8

***Dairy 3***

What you can do in this project:

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

Grades: 9-12

***Dairy 4******Dairy Leader******Dairy Youth Leader*****DOGS*****Dogs 1***

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

Grades: 3-5

***Dogs 2***

What you can do in this project:

- Explore dog health and nutrition
- Discover genetic problems and population control
- Learn showmanship and training techniques
- Learn about show-ring ethics

Grades: 6-8

***Dogs 3***

What you can do in this project:

- Investigate responsible breeding
- Care for geriatric dogs
- Train service dogs
- Explore careers related to dogs

Grades: 9-12

***Dogs 4******Dogs Leader******Dogs Youth Leader*****HORSES*****Horse 1***

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

Grades: 3-5

***Horse 2***

What you can do in this project:

- Practice horsemanship and judging
- Understand horse selection and training
- Learn about tack, feeding and diseases
- Practice showing a horse and trail riding

Grades: 6-8

***Horse 3***

What you can do in this project:

- Explore horse breeding, genetics and heredity
- Understand horse diseases and prevention
- Learn about fencing, pasturing and housing
- Explore horse-related careers

Grades: 9-12

***Horse 4***

What you can do in this project:

- Train a horse
- Practice a round-pen workout
- Learn English and Western style bridles
- Understand equitation and riding styles

Grades: 3-7

***Horse 5***

What you can do in this project:

- Learn to set goals
- Compare costs of show clothing
- Present your horse in showmanship classes
- Rate your showmanship skills
- Practice proper show ethics

Grades: 8-12

***Horse/ Horseless Horse Leader******Horse/ Horseless Horse Youth Leader***

***Clothes Horse***

What you can do in this project:

- Learn how to make riding apparel and equipment
- Develop sewing and creative skills
- Understand textile selection and care

Grades: 3-12

***Clothes Horse Leader******Clothes Horse Youth Leader******Draft Horse***

What you can do in this project:

- Explore different breeds and characteristics
- Learn conformation, selection and nutrition
- Practice harnessing and hitching

Grades: 6-8

***Horseless Horse 1***

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

Grades: 3-5

***Horseless Horse 2***

What you can do in this project:

- Learn about horsemanship
- Explore judging and oral reasons
- Learn selection, training and showing
- Practice trail riding skills

Grades: 6-8

***Horseless Horse 3***

What you can do in this project:

- Explore horse breeding, genetics and heredity
- Understand horse diseases and prevention
- Learn about fencing, pasturing and housing
- Explore horse-related careers

Grades: 9-12

***Model Horses******Model Horse Leader******Model Horse Youth Leader*****LLAMAS*****Llamas 1******Llamas 2******Llamas 3******Llamas Leader******Llamas Youth Leader*****GOATS*****Dairy Goat 1***

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

Grades: 3-5

***Dairy Goat 2***

What you can do in this project:

- 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

Grades: 6-8

***Dairy Goat 3***

What you can do in this project:

- 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

Grades: 9-12

***Dairy Goat 4******Dairy Goat Leader******Dairy Goat Youth Leader***



***Meat Goat 1***

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

Grades: 3-4

***Meat Goat 2***

What you can do in this project:

- Recognize meat goat diseases
- Select a veterinarian and purchase breeding stock
- Understand reproduction cycle and keep records
- Fit and show meat goats

Grades: 5-8

***Meat Goat 3***

What you can do in this project:

- Learn to control diseases
- Understand bio-security and quality assurance
- Formulate rations
- Evaluate goat pastures

Grades: 9-12

***Meat Goat Leader******Meat Goat Youth Leader******Pygmy Goat******Pygmy Goat Leader******Pygmy Goat Youth Leader*****PETS*****Pets 1***

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

Grades: 3-5

***Pets 2***

What you can do in this project:

- Explore animal digestion and feeding
- Shop for pet supplies

- Determine the animal's sex and proper health
- Study pet behavior and communication

Grades: 6-8

***Pets 3***

What you can do in this project:

- Explore pet products
- Teach others about pets
- Understand how genetics work
- Explore animal welfare issues

Grades: 9-12

***Pets 4******Pets Leader******Pets Youth Leader*****POULTRY*****Poultry 1***

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

Grades: 3-5

***Poultry 2***

What you can do in this project:

- Observe a healthy flock
- Select and judge broilers
- Discover how an egg is formed
- Prevent poultry diseases
- Discover how chicks imprint

Grades: 6-8

***Poultry 3***

What you can do in this project:

- Organize a judging clinic
- Manage a laying flock
- Discover qualities of eggs
- Handle poultry products safely
- Process a chicken

Grades: 9-12

***Poultry Leader******Poultry Youth Leader***

***Poultry Bantams***

What you can do in this project:

- 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

Grades: 3-12

***Poultry Exotic Birds (Ostrich, Emu)******Poultry Game Birds (Quail, Pheasant)******Poultry Market******Poultry Pigeons***

What you can do in this project:

- Learn about buying, banding and feeding
- Understand about proper housing and behavior
- Learn about grooming and exhibiting

Grades: 3-12

***Poultry Turkeys***

What you can do in this project:

- Learn about buying poultry
- Prepare a brooding area
- Raise range turkeys
- Feed and water turkeys
- Identify diseases

Grades: 3-12

***Poultry Waterfowl***

What you can do in this project:

- Learn about waterfowl breeds and parts
- Handle waterfowl properly
- Select and prepare waterfowl for market
- Incubate and exhibit waterfowl

Grades: 3-12

**RABBITS*****Rabbits 1***

What you can do in this project:

- Learn about selecting and handling rabbits
- Identify rabbit breeds and body parts
- Explore health issues and feeding

Grades: 3-5

***Rabbits 2***

What you can do in this project:

- Learn to select show rabbits
- Give oral reasons and judge rabbits
- Learn to tattoo
- Detect diseases
- Keep records of animals

Grades: 6-8

***Rabbits 3***

What you can do in this project:

- Learn about breeding and genetics
- Design a rabbitry
- Market rabbits
- Learn about disease prevention and rabbit registration

Grades: 9-12

***Rabbits 4******Rabbits Leader******Rabbits Youth Leader*****SHEEP*****Sheep 1***

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

Grades: 3-5

***Sheep 2***

What you can do in this project:

- Learn to identify sheep parasites
- Promote meat safety
- Judge wool
- Diagnose sheep diseases
- Use medications safely
- Explore careers

Grades: 6-8

**Sheep 3**

What you can do in this project:

- Set sheep production goals
- Plan sheep related activities
- Market sheep products and teach others
- Plan a judging contest
- Explore careers

Grades: 9-12

**Sheep 4****Sheep Leader****Sheep Youth Leader****SWINE****Swine 1**

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

Grades: 3-5

**Swine 2**

What you can do in this project:

- 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

Grades: 6-8

**Swine 3**

What you can do in this project:

- Learn to make breeding and culling decisions
- Judge a class of breeding gilts
- Design a preventative herd health plan
- Manage a feeding program

Grades: 9-12

**Swine 4****Swine Leader****Swine Youth Leader****VETERINARY SCIENCE****Veterinary Science 1**

What you can do in this project:

- Learn different breeds of animals
- Interpret animal behavior
- Identify feed nutrients
- Describe animal life stages and systems

Grades: 3-5

**Veterinary Science 2**

What you can do in this project:

- Create health records for your animal
- Conduct food safety experiments
- Discover importance of immunity and bio-security
- Consider ethics and animal welfare

Grades: 6-8

**Veterinary Science 3**

What you can do in this project:

- Investigate the importance of genetics
- Understand diseases that spread from animals to humans
- Learn about diversity of veterinary careers

Grades: 9-12

**Veterinary Science Leader****Veterinary Science Youth Leader****Arts & Communication****COMMUNICATIONS****COMMUNICATIONS****Communications 1**

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

Grades: 3-5

***Communications 2***

What you can do in this project:

- Learn to become a confident communicator
- Present oral reasons, plan and present speeches
- Practice making good first impressions

Grades: 6-8

***Communications 3***

What you can do in this project:

1. Polish your communication skills
2. Explore communication careers
3. Write résumés and interview for a job

Grades: 9-12

***Communications Leader******Communications Youth Leader*****CREATIVE WRITING*****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

***Creative Writing Leader******Creative Writing Youth Leader*****DEMONSTRATIONS*****Demonstrations******Demonstrations Leader******Demonstrations Youth Leader*****POSTERS*****Posters******Posters Leader******Posters Youth Leader*****SIGN LANGUAGE****SPEAKING*****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

***Speaking Leader******Speaking Youth Leader*****PERFORMING ARTS****CLOWNING*****Clowning***

What you can do in this project:

- Discover the history of clowning
- Develop your own character
- Design your own makeup, costume and props

Grades: 3-12

***Clowning Leader******Clowning Youth Leader*****DANCE*****Dance******Dance Leader******Dance Youth Leader*****MUSIC*****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

***Music Leader******Music Youth Leader***

**PUPPETRY***Puppetry**Puppetry Leader**Puppetry Youth Leader***THEATRE ARTS***Theatre Arts 1*

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

Grades: 3-5

*Theatre Arts 2*

What you can do in this project:

- 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

Grades: 6-8

*Theatre Arts 3*

What you can do in this project:

- 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

Grades: 9-12

*Theatre Arts 4**Theatre Arts Leader**Theatre Arts Youth Leader***VISUAL ARTS****ART***Art 1*

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

Grades: 3-6

*Art 2*

What you can do in this project:

- Explore art techniques, culture and history of art
- Learn artistic challenges in drawing, fiber arts and sculpting
- Develop graphic design techniques

Grades: 7-12

*Art 3**Arts Leader**Arts Youth Leader***BASKETRY***Basketry**Basketry Leader**Basketry Youth Leader***BEADWORK****BLOCK PRINTING***Block Printing*

What you can do in this project:

- Design and cut blocks from different materials
- Print designs on cloth and paper
- Create your own original designs

Grades: 5-12

*Block Printing Leader**Block Printing Youth Leader***CALLIGRAPHY****CANDLEMAKING**

**CERAMICS***Ceramics**Ceramics Leader**Ceramics Youth Leader*

- Learn more from your family and community
- Learn storytelling
- Decorate eggs and make baskets

Grades: 5-12

*Folk Arts Leader**Folk Arts Youth Leader***COLLAGES****COMPUTERS***Computer Graphic Design***CREATIVE/CROSS STITCHERY***Creative/Cross Stitchery**Creative/Cross Stitchery Leader**Creative/Cross Stitchery Youth Leader***DECORATIVE BOXES****DECORATIVE WREATHS****DECOUPAGE****DRAWING & PAINTING***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

*Drawing & Painting Leader**Drawing & Painting Youth Leader***FIBER ARTS****FLOWER CRAFTS****FOLK ARTS***Folk Arts*

What you can do in this project:

- Explore traditional folk arts

**HANDMADE DOLLS****JEWELRY MAKING***Jewelry Making**Jewelry Making Leader**Jewelry Making Youth Leader***LEATHERCRAFT***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

*Leathercraft Leader**Leathercraft Youth Leader***LIQUID EMBROIDERY****METAL ENAMELING***Metal Enameling*

What you can do in this project:

- Try enameling earrings, pins and other jewelry
- Learn to attach fasteners
- Create original designs and patterns

Grades: 5-12

*Metal Enameling Leader**Metal Enameling Youth Leader***MOSAICS**

**NEEDLEPOINT***Needlepoint**Needlepoint Leader**Needlepoint Youth Leader***ORNAMENTS****PAPER ART****PHOTOGRAPHY***Photography 1*

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

Grades: 3-5

*Photography 2*

What you can do in this project:

- Learn about camera adjustments
- Learn about film speed, shutter speed and aperture
- Take silhouettes, candid, action shots and others

Grades: 6-8

*Photography 3*

What you can do in this project:

- 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

Grades: 9-12

*Photography Leader**Photography Youth Leader***PLASTERCRAFT****POTTERY***Pottery**Pottery Leader**Pottery Youth Leader***PRIMITIVE ART****PRINT MAKING****ROCK ART****RUBBER STAMPING***Rubber Stamping**Rubber Stamping Leader**Rubber Stamping Youth Leader***SCRAPBOOKING****SCULPTY CLAY****SOAP CARVING****SOAP MAKING****STENCIL PAINTING***Stencil Painting**Stencil Painting Leader**Stencil Painting Youth Leader***STRING/WIRE ART****STUFFED ANIMALS****TIE DYING****VIDEOGRAPHY***Videography*

What you can do in this project:

- Learn storytelling, editing and lighting
- Experiment with camera handling and editing
- Learn to plan a project with the use of sound and titles
- Show and review your production

Grades: 6-12

**WEARABLE ART****WEAVING***Weaving**Weaving Leader**Weaving Youth Leader***WOOD ART****WOOD BURNING***Wood Burning**Wood Burning Leader**Wood Burning Youth Leader***Community Involvement****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

*Citizenship Leader**Citizenship Youth Leader***INTERNATIONAL PROGRAMS***International 1*

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

Grades: 3-12

*International 2**International 3**International Leader**International Youth Leader***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

*Self-Determined Leader***SERVICE LEARNING***Service Learning 1*

What you can do in this project:

- Learn to give back to your community
- Reflect on your experiences
- Identify community needs
- Plan a service project and execute the idea

Grades: 5-8

*Service Learning 2*

What you can do in this project:

- Plan and implement your own service project
- Share your project plan and outcome with others
- Conduct an evaluation of your project

Grades: 9-12

*Service Learning Leader**Service Learning Youth Leader***YOUTH LEADERSHIP***Youth Leadership 1*

What you can do in this project:

- Assess your leadership skills
- Practice effective communication skills
- Set goals and resolve conflict
- Plan a group event

Grades: 3-5



**Youth Leadership 2**

What you can do in this project:

- Explore how leaders are different
- Develop a multi-media presentation
- Set and achieve team goals
- Practice teamwork

Grades: 6-8

**Youth Leadership 3**

What you can do in this project:

- Build trust in a group
- Assess you own strengths and weaknesses
- Write vision and mission statements
- Contribute to a group project

Grades: 9-12

**Youth Leadership Leader****Youth Leadership Youth Leader****Family, Home & Health****CHILD DEVELOPMENT****Child Development 1**

What you can do in this project:

- Find out how you grow and develop
- Learn about the development of babies and toddlers
- Learn how to make toys safe for small children

Grades: 3-4

**Child Development 2**

What you can do in this project:

- Learn how to take care of yourself and others
- See what makes your family special
- Discover how to match toys to ages of children
- Develop family rules
- Check for safety hazards

Grades: 5-6

**Child Development 3**

What you can do in this project:

Explore how to be an effective parent  
Gain experience as a teacher or coach  
Make babysitting and first-aid kits

Check out child development careers

Grades: 7-10

**Child Development Leader****Child Development Youth Leader****CONSUMER EDUCATION****CONSUMER SAVVY****Consumer Savvy 1**

What you can do in this project:

- Learn your shopping style
- Use the yellow pages to find goods and services
- Know the difference between wants and needs
- Write a savings and spending plan
- Start a savings account

Grades: 3-5

**Consumer Savvy 2**

What you can do in this project:

- Identify your personal spending values
- Understand advertising appeal and its affects
- See how peer pressure can influence your purchases
- Understand the risks of shopping on the Internet

Grades: 6-9

**Consumer Savvy 3**

What you can do in this project:

- Define consumer responsibilities and ethics
- Understand your consumer rights
- Use comparison shopping techniques
- Understand the costs of owning a vehicle

Grades: 10-12

**Consumer Savvy Leader****Consumer Savvy Youth Leader**

**ENTREPRENEURSHIP*****Entrepreneurship***

What you can do in this project:

- Practice the skills needed to be an entrepreneur
- Explore businesses, products, marketing and pricing
- Create a business plan and start your own business

Grades: 7-12

***Entrepreneurship Leader******Entrepreneurship Youth Leader*****PERSONAL FINANCE*****Personal Finance 1***

What you can do in this project:

- Learn money management skills
- Learn how to live on a budget

Grades: 6-8

***Personal Finance 2***

What you can do in this project:

- Learn about wants and needs, values and goal setting
- Explore ways to use and save money
- Learn the benefits and drawbacks of credit
- Survey and select financial services

Grades: 9-12

***Personal Finance Leader******Personal Finance Youth Leader*****WORKFORCE READINESS*****Workforce Readiness***

What you can do in this project:

- Explore what it takes to get your first job
- Discover how to assess job possibilities in the community
- Create job scenarios
- Recognize your learning styles and personal qualities

Grades: 6-9

***Workforce Readiness Leader******Workforce Readiness Youth Leader*****FOODS & NUTRITION****CAKE DECORATING*****Cake Decorating 1******Cake Decorating 2******Cake Decorating 3******Cake Decorating Leader******Cake Decorating Youth Leader*****CANDY MAKING*****Candy Making******Candy Making Leader******Candy Making Youth Leader*****FOOD PRESERVATION*****Food Preservation 1***

What you can do in this project:

- Learn the basics of preserving food safely
- Use UW-Extension Safe Food Preservation Series

Grades: 6-12

***Food Preservation 2***

What you can do in this project:

- Continue learning food preservation techniques
- Use UW-Extension Safe Food Preservation Series

Grades: 6-12

***Food Preservation 3******Food Preservation Leader******Food Preservation Youth Leader***

**FOODS & NUTRITION*****Foods & Nutrition 1***

What you can do in this project:

- Learn what is good to eat & 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

Grades: 3-4

***Foods & Nutrition 2***

What you can do in this project:

- Make main dishes.
- Learn to make basic muffins and biscuits
- Learn to change recipes
- Reduce fat content in recipes
- Discover how to store fruit and vegetables

Grades: 5-6

***Foods & Nutrition 3***

What you can do in this project:

- 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

Grades: 7-9

***Foods & Nutrition 4***

What you can do in this project:

- 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

Grades: 10-12

***Foods & Nutrition 5******Foods & Nutrition Leader******Foods & Nutrition Youth Leader*****CLOTHING & TEXTILES****CLOTHING*****Clothing 1***

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

Grades: 3-5

***Clothing 2***

What you can do in this project:

- Identify types of fabric constructions
- Sew different buttonholes and seam finishes
- Use pressing tools and thread a serger
- Research different laundry products

Grades: 6-8

***Clothing 3***

What you can do in this project:

- 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

Grades: 9-12

***Clothing Leader******Clothing Youth Leader***

**CROCHETING*****Crocheting 1***

What you can do in this project:

- Learn to select and purchase yarn, thread and equipment
- Explore crocheting and finishing techniques
- Understand care instructions for crocheted items

Grades: 3-12

***Crocheting 2******Crocheting 3******Crocheting Leader******Crocheting Youth Leader*****KNITTING*****Knitting 1***

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

Grades: 3-12

***Knitting 2******Knitting 3******Knitting Leader******Knitting Youth Leader*****QUILTING*****Quilting******Quilting Leader******Quilting Youth Leader*****HEALTH & FITNESS****BOWLING****HEALTH*****Health 1***

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

Grades: 3-5

***Health 2***

What you can do in this project:

- Identify your personal talent areas in health care
- Explore hygiene, nutrition and physical activities
- Share what you learn with others

Grades: 6-8

***Health 3***

What you can do in this project:

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

Grades: 9-12

***Health Leader******Health Youth Leader*****SOFTBALL****SPORTS*****Sports Leader******Sports Youth Leader*****HOME ENVIRONMENT*****Home Environment 1***

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

Grades: 3-5

***Home Environment 2***

What you can do in this project:

- Become more involved with activities around the home
- Learn to handle home tasks and entertain guests
- Refinish wood furnishings and make other home items

Grades: 6-7

***Home Environment 3***

What you can do in this project:

- Learn the principles of home design
- Learn scale, balance and proportion in home design
- Use the principles of design to arrange your home
- Create storage centers and restore furniture

Grades: 8-9

***Home Environment 4***

What you can do in this project:

- Focus on the application of design fundamentals
- Learn about purchasing furnishings for the home
- Restore or make a heritage item

Grades: 10-12

***Home Environment 5******Home Environment Leader******Home Environment Youth Leader*****INTERGENERATIONAL PROGRAMS*****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

***Intergenerational Programs Leader******Intergenerational Programs Youth Leader*****SAFETY*****Safety******Safety Leader******Safety Youth Leader*****Mechanical Sciences****BICYCLING*****Bicycling – Eng And Tech 1***

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

Grades: K-3

***Bicycling – Eng And Tech 2***

What you can do in this project:

- Choose a bike that's right for you
- Practice bike maintenance
- Learn road rules

Grades: 4-6

***Bicycling – Eng And Tech 3******Bicycling Leader******Bicycling Youth Leader*****COMPUTERS*****Computers 1***

What you can do in this project:

- Learn about hardware, software and components
- Explore how computers work
- Learn the various programs and their features

Grades: 3-5

**Computers 2**

What you can do in this project:

- Build and repair a computer
- Identify the components and how they work together
- Learn to upgrade and create connections
- Install operating systems

Grades: 6-8

**Computers 3**

What you can do in this project:

- Discover how to create and manage networks
- Make decisions about network management
- Explore security issues and troubleshooting

Grades: 9-12

**Computers Leader****Computers Youth Leader****ELECTRICITY****Electricity 1**

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

Grades: 4-5

**Electricity 2**

What you can do in this project:

- Work with electrical equipment
- Learn to read circuit diagrams
- Build a circuit and measure voltages
- Communicate in Morse code

Grades: 6-7

**Electricity 3**

What you can do in this project:

- Develop a basic electrical tool and supply kit
- Understand the symbols on wires and cables
- Locate your home wiring system

Grades: 8-9

**Electricity 4**

What you can do in this project:

- Identify electrical & electronic parts/devices
- Learn how to solder & prepare parts for assembly
- Assemble a circuit using a transistor

Grades: 10-12

**Electricity Leader****Electricity Youth Leader****FLYING****HANDYMAN****Handyman****Handyman Leader****Handyman Youth Leader****LEGO®****LEGO®****LEGO® Leader****LEGO® Youth Leader****MODEL CARS****MODEL RAILROAD****MODEL ROCKETRY****Model Rocketry****Model Rocketry Leader****Model Rocketry Youth Leader****REMOTE CONTROLLED CARS**

**SCALE MODELS*****Scale Models***

What you can do in this project:

- Assemble and create scale models of trains, cars, etc.
- Learn how to obtain materials you need in construction
- Learn to display your model and judge it

Grades: 3-12

***Scale Models Leader******Scale Models Youth Leader*****SMALL ENGINES*****Small Engines 1***

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

Grades: 3-5

***Small Engines 2***

What you can do in this project:

- Explore the internal parts of engines
- Learn about engine sizes and safety issues
- Explore different jobs related to small engines

Grades: 6-8

***Small Engines 3***

What you can do in this project:

- Tear down and rebuild an engine
- Learn to use diagnostic tools
- Research rules and regulations in using small engines

Grades: 9-12

***Small Engines Leader******Small Engines Youth Leader*****TRACTORS*****Tractors 1***

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

Grades: 3-4 (little or no experience)

***Tractors 2***

What you can do in this project:

- Practice farm and tractor safety
- Understand the mechanics of engines
- Identify accessory equipment
- Learn the functions of different operational systems

Grades: 5-6 (little or no experience)

***Tractors 3***

What you can do in this project:

- Learn types of oil systems and fuel safety
- Learn how to hook on a PTO unit
- Learn tractor and machinery maintenance

Grades: 7-9 (some prior experience)

***Tractors 4***

What you can do in this project:

- Focus on safety and maintenance
- Identify and work with operational systems

Grades: 10-12 (some prior experience)

***Tractors Leader******Tractors Youth Leader*****WELDING*****Welding******Welding Leader******Welding Youth Leader*****WOODWORKING*****Woodworking 1***

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

Grades: 2-4

***Woodworking 2***

What you can do in this project:

- 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

Grades: 4-6

***Woodworking 3***

What you can do in this project:

- 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

Grades: 6-8

***Woodworking 4***

What you can do in this project:

- 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

Grades: 9-12

***Woodworking 5******Woodworking Leader******Woodworking Youth Leader******Adventures Youth Leader*****ASTRONOMY*****Astronomy******Astronomy Leader******Astronomy Youth Leader*****BACKPACKING & HIKING*****Backpacking & Hiking 1***

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

Grades: 3-5

***Backpacking & Hiking 2***

What you can do in this project:

- 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

Grades: 6-8

***Backpacking & Hiking 3***

What you can do in this project:

- 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

Grades: 9-12

***Backpacking & Hiking Leader******Backpacking & Hiking Youth Leader*****BEES****Natural Sciences****ADVENTURES*****Adventures***

What you can do in this project:

- Learn how to camp safely in all weather conditions
- Investigate camping equipment and clothing
- Build a campfire and cook a meal
- Practice tying knots and first aid
- Learn to use a map and compass

Grades: 3-12

***Adventures Leader***



## BICYCLING - ENVIRONMENTAL EDUCATION

### *Bicycling – Environ Ed*

What you can do in this project:

- Learn how and where to bicycle safely
- Plan a bicycle camping trip
- Design and build a bicycle obstacle course
- Conduct a bike maintenance check

Grades: 3-12

## CAMPING

## CANOEING

### *Canoeing*

What you can do in this project:

- Learn how and where to canoe safely
- Select and care for equipment
- Explore aquatic environments
- Plan a canoe camping trip
- Canoe a river

Grades: 3-12

## CONSERVATION

### *Conservation*

### *Conservation Leader*

### *Conservation Youth Leader*

## ENTOMOLOGY

### *Entomology (Insects) 1*

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

Grades: 3-5

### *Entomology (Insects) 2*

What you can do in this project:

- Learn how an insect protects itself
- Explore insect habitats
- Create an insect display
- Build an insect extractor
- Investigate entomology careers

Grades: 6-8

### *Entomology (Insects) 3*

What you can do in this project:

- 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

Grades: 9-12

### *Entomology (Insects) Leader*

### *Entomology (Insects) Youth Leader*

## EXPLORING YOUR ENVIRONMENT

### *Exploring Your Environment 1*

What you can do in this project:

- Explore the four elements of life: sun, air, water and soil
- Use your senses to explore the environment
- Connect to the environment through plants and animals
- Learn how the environment is affected by pollution

Grades: 5-7

### *Exploring Your Environment 2*

What you can do in this project:

- Explore wildlife habitats and tracking
- Learn about groundwater
- Research pollination and how it works

Grades: 8-10

### *Exploring Your Environment 3*

What you can do in this project:

- Explore the world of biotechnology
- Learn the features of insect creatures
- Begin to understand biodiversity
- Learn what climate has to do with the way we live

Grades: 11-12

*Exploring Your Environment Leader**Exploring Your Environment Youth Leader***FISHING***Fishing 1*

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

Grades: 3-5

*Fishing 2*

What you can do in this project:

- 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

Grades: 6-8

*Fishing 3*

What you can do in this project:

- Learn to reassemble a fishing reel
- Make artificial flies and lures
- Modify fishing equipment
- Investigate fishing careers

Grades: 9-12

*Fishing 4**Fishing 5**Fishing Leader**Fishing Youth Leader***FORESTRY***Forestry 1*

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

Grades: 3-5

*Forestry 2*

What you can do in this project:

- Learn how trees move water from soil to canopy
- Diagram a leaf
- Understand major forest changes and their impact
- Select urban tree planting sites

Grades: 6-8

*Forestry 3*

What you can do in this project:

- Recognize different tree fruits
- Create a community forest map
- Identify forest biomes by continent
- Identify an unknown tree using a tree key

Grades: 9-12

*Forestry Leader**Forestry Youth Leader***GEOLOGY***Geology**Geology Leader**Geology Youth Leader***HOME ENERGY***Home Energy**Home Energy Leader**Home Energy Youth Leader***RECYCLING***Recycling*

What you can do in this project:

- Learn about the impact of solid waste on the environment
- Learn to reduce, reuse and recycle

Grades: 3-12

*Recycling Leader**Recycling Youth Leader***REPTILES**

**SCIENCE DISCOVERY***Science Discovery**Science Discovery Leader**Science Discovery Youth Leader***SHOOTING SPORTS***Shooting Sports**Shooting Sports Leader**Shooting Sports Youth Leader***AIR GUNS***Air Pistol*

What you can do in this project:

- Explore different air pistols
- Learn basic safety rules and guidelines
- Learn marksmanship and shooting procedures

Grades: 3-12

*Air Pistol Leader**Air Pistol Youth Leader**Air Rifle*

What you can do in this project:

- Explore different types of air rifles
- Learn basic safety rules and range commands
- Develop marksmanship
- Learn various shooting positions used in competition

Grades: 3-12

*Air Rifle Leader**Air Rifle Youth Leader***ARCHERY***Archery*

What you can do in this project:

- Learn the fundamentals of archery marksmanship
- Learn rules and safety guidelines
- Make archery equipment
- Shoot with sights and different bows

Grades: 3-12

*Archery Leader**Archery Youth Leader***HUNTING***Hunting*

What you can do in this project:

- Learn the history, philosophy and laws of hunting
- Learn to plan and equip yourself for a hunt

Grades: 3-12

*Hunting Leader**Hunting Youth Leader***MUZZLELOADING***Muzzleloading*

What you can do in this project:

- Explore muzzleloading history
- Study different muzzleloading guns and accessories
- Learn how to clean a muzzleloader
- Learn safety issues

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

*Muzzleloading Leader**Muzzleloading Youth Leader*

**PISTOL*****Pistol (Smallbore .22)***

What you can do in this project:

- Explore the history of different types of pistols
- Learn basic safety rules and range commands
- Develop marksmanship and shooting procedures

Ages: MUST BE 12 YEARS OLD OR ABOVE.

***Pistol Leader (Smallbore .22)******Pistol Youth Leader (Smallbore .22)*****RIFLE*****Rifle***

What you can do in this project:

- 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

Ages: MUST BE 12 YEARS OLD OR ABOVE.

***Rifle Leader******Rifle Youth Leader*****SHOTGUN*****Shotgun***

What you can do in this project:

- Learn the basic safety issues with shotgun handling
- Learn shooting fundamentals
- Learn the proper way to carry a shotgun

Ages: MUST BE 12 YEARS OLD OR ABOVE.

***Shotgun Leader******Shotgun Youth Leader*****WATER*****Water***

What you can do in this project:

- Identify water conservation and pollution issues
- Explore issues in your home, community or school
- Select an issue to focus on
- Develop and implement a plan

Grades: 3-12

***Water Leader******Water Youth Leader*****WEATHER*****Weather******Weather Leader******Weather Youth Leader*****WILDFLOWERS*****Wildflowers***

What you can do in this project:

- Learn about wildflowers in your neighborhood
- Learn to identify wildflowers and how to collect them
- Discover how humans affect wildflowers

Grades: 3-12

**WILDLIFE*****Wildlife******Wildlife Habitat******Wildlife Leader******Wildlife Youth Leader***

**WINTER TRAVEL*****Winter Travel***

What you can do in this project:

- Discover winter travel on cross-country skis and snowshoes
- Select and take care of equipment and clothing
- Experience a winter overnight campout
- Discover how trees and plants prepare for winter

Grades: 3-12

**Plant & Soil Sciences****CROPS*****Crops******Crops Leader******Crops Youth Leader******Corn (Crops 1)***

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

Grades: 3-12

***Forage (Crops 2)***

What you can do in this project:

- Establish and manage a forage crop
- Scout fields for pests, diseases and nutrition shortages
- Take an accurate forage sample
- Study growing techniques

Grades: 3-12

***Small Grains (Crops 3)***

What you can do in this project:

- Explore types of grasses, including wheat, oats and barley
- Learn about growing conditions and nutrients
- Practice integrated pest management

- Compare production costs and marketing

Grades: 3-12

***Soybeans (Crops 4)******Weed Management (Crops 5)*****FLOWERS*****Flowers 1***

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

Grades: 3-5

***Flowers 2***

What you can do in this project:

- 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

Grades: 6-8

***Flowers 3***

What you can do in this project:

- Design a plant experiment
- Make a landscape plan
- Write instructions on how to force bulbs
- Compare different fertilizers: organic and chemical

Grades: 9-12

***Flowers Leader******Flowers Youth Leader*****FRUITS*****Fruits 1***

What you can do in this project:

- Produce fruits from apples to berries
- Select the best fruit cultivar for your home garden

Grades: 3-12

***Fruits 2***

What you can do in this project:

- Produce fruits such as pears and grapes
- Learn about different varieties of cultivars

***Fruits 3******Fruits Leader******Fruits Youth Leader*****HERBS*****Herbs******Herbs Leader******Herbs Youth Leader*****HOME GROUNDS*****Home Grounds 1***

What you can do in this project:

- Learn about seeding a lawn
- Study proper lawn care and maintenance
- Explore fertilization and pest management techniques

Grades: 3-5

***Home Grounds 2***

What you can do in this project:

- Learn the importance of planting trees and shrubs
- Explore variety selection and placement
- Learn basic maintenance: pruning and fertilization

Grades: 6-8

***Home Grounds 3***

What you can do in this project:

- Explore landscape planning
- Select, place and plant trees and shrubs
- Maintain your home grounds

Grades: 9-12

***Home Grounds Leader******Home Grounds Youth Leader*****HORTICULTURE*****Horticulture******Horticulture Leader******Horticulture Youth Leader*****HOUSE PLANTS*****House Plants 1***

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

Grades: 3-5

***House Plants 2***

What you can do in this project:

- Learn about plant seeds and soil
- Select and start new plants and grow transplants
- Plant a terrarium
- Examine plants for insects and diseases

Grades: 6-8

***House Plants 3***

What you can do in this project:

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

Grades: 9-12

***House Plants Leader******House Plants Youth Leader*****PLANT CRAFTS*****Plant Crafts***

What you can do in this project:

- Learn to harvest plants
- Use different drying techniques
- Learn how to use plant materials
- Learn how to make dried arrangements, corsages

Grades: 3-12

***Plant Crafts Leader******Plant Crafts Youth Leader***

**SOIL SCIENCE***Soil Science 1**Soil Science 2**Soil Science 3**Soil Science Leader**Soil Science Youth Leader***VEGETABLES***Vegetables 1*

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

Grades: 3-5

*Vegetables 2*

What you can do in this project:

- Learn about plant needs and soil testing
- Start new plants and grow transplants
- Build a compost pile and use mulches

Grades: 6-8

*Vegetables 3*

What you can do in this project:

- Grow plants in a cold frame
- Make a site analysis and landscape plan
- Compare organic and chemical fertilizers
- Research various insect control methods

Grades: 9-12

*Vegetables Leader**Vegetables Leader**Vegetables Youth Leader***STEM (Science, Technology, Engineering, & Math)****AEROSPACE***Aerospace 1*

What you can do in this project:

- Build an introductory level rocket
- Compare birds and airplanes
- Make a space helmet

Grades: K-2

*Aerospace 2*

What you can do in this project:

- 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

Grades: 3-5

*Aerospace 3*

What you can do in this project:

- Build, exhibit and launch model rockets
- Test a paper hang glider
- Make a flight simulator
- Demonstrate why rockets fly
- Organize a kite-flying contest

Grades: 6-8

*Aerospace 4*

What you can do in this project:

- Design and build rockets and box kites
- Build an altitude tracker
- Plan a flight route
- Discover the effects of gravity
- Explore life in space and aerospace careers

Grades: 9-12

*Aerospace Leader**Aerospace Youth Leader*

**FOOD SCIENCE*****Food Science***

What you can do in this project:

- The Secrets of Baking: gluten, leavening, ingredients, and mixing.
- The Power of Protein Chemistry: eggs and cheese. The inner Mysteries of Fruits & Vegetables: browning fruits and vegetables, cooking appetizing vegetables, osmosis and diffusion in preserving/preparing fruits.
- Be a Food Scientist: day in the life of a food scientist, guest speakers, videos, create a new beverage, and experiment with sugar crystallization and caramelization.

Grades: 6 and up

***Food Science Leader*****GEOCACHING****GEOSPACIAL*****Geospatial 1***

What you can do in this project:

- Discover how to think about geographic positions
- Learn about navigational tools: GIS, GPS, compasses
- Learn to measure distances

Grades: 4-12

***Geospatial 2***

What you can do in this project:

- Learn how to collect data
- Combine data with geographical positions
- Make maps of home, neighborhood & community

Grades: 4-12

***Geospatial 3***

What you can do in this project:

- Use multi-layered maps to solve problems
- Find ways to reduce traffic
- Pinpoint pollution sources

Grades: 4-12

***Geospatial Leader******Geospatial Youth Leader*****ROBOTICS*****Robotics 1***

What you can do in this project:

- Explore and learn about robots arms
- Learn about robot form, function and design
- Build robots from everyday items

***Robotics 2***

What you can do in this project:

- Explore and learn about robots that move with legs, wheels and underwater.
- Learn about basic electrical power and motors, and gear system
- Build robots from everyday items

***Robotics 3***

What you can do in this project:

- Explore and learn about robots sensors and analog and digital systems
- Build basic circuits
- Study basic elements of programming and instruction

***Robotics Leader******Robotics Youth Leader*****SCIENCE*****Science******Science Leader******Science Youth Leader*****STEM EXPLORING*****STEM Exploring******STEM Leader******STEM Youth Leader*****WIND ENERGY**



# Younger Members

## CLOVERBUDS

### *Cloverbuds 1*

What you can do in this project:

- Learn about your 4-H club or group
- Begin developing different skills, e.g., working with others
- Explore your community
- Discover areas of project interest

Grade: Kindergarten

### *Cloverbuds 2*

What you can do in this project:

- Learn about 4-H activities and events
- Learn about working together as a club or team
- Share with others what you have learned

Grade: 1

### *Cloverbuds 3*

What you can do in this project:

- Begin learning about specific 4-H project areas
- Learn to complete projects as an individual
- Share with others what you have learned

Grade: 2

### *Cloverbuds Leader*

### *Cloverbuds Youth Leader*

## EXPLORING

### *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

### *Exploring Youth Leader*

### *Exploring Leader*