

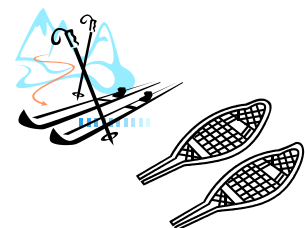
**2019-20**

**Bayfield County**

**4-H Enrollment &**

**Project Selection**

**Guide**



# Re-Enrolling Members/Leaders

## GETTING STARTED

- To get started with the re-enrollment process, go to 4HOnline at <https://wi.4honline.com/> and log with your family email and password. If you forget your password, use the *Forgot Password* feature on the login page and a new password will be emailed to you. You can also contact the 4H office and we can reset it for you.
- On the family home screen, click on the orange button labeled **Continue to Family**.
- On your Member/Volunteer list, find the family member you wish to re-enroll and click on Edit next to their name.

## RE-ENROLL

- At the bottom of the next screen, click on the button for **Enroll for 2019-20**.
- *If the youth is over 17 years old, a box will appear asking if you wish to enroll as a youth or an adult. If the youth is graduating from 4-H and wants to continue as an adult leader, then choose **Enroll As Adult**, otherwise select **Enroll as Youth**.*
- You will now see the Personal Information that you entered when you first enrolled. Look over the information and make any corrections. *If the youth was in 12<sup>th</sup> grade last year, you must select the grade for this year, either **Post High School Education** or **Not in School**. When you are done, click on **Continue**.*
- Next is the Additional Information screen where you will need to accept the agreements and answer the Photo Release and Accommodations questions. Click **Continue** when done.
- The Health Form for members is optional at enrollment, but you could be asked to complete it in the future if you attend any events that require one. Click **Continue** when done.
- **If you are an adult volunteer** and see the Volunteer Screening page, then it has been 4 years since the last time a background check has been completed. You need to check over the answers to the questions and correct as needed. This page will only appear every 4 years. Click **Continue** when done.
- On the Participation -> Club screen, confirm the correct club is listed. If you serve in a volunteer role (but not as a project leader) click on **Edit** and select the volunteer type. Click on **Update** to save the change. Click on **Continue** when done.
- On the Participation -> Projects screen, confirm all the projects you are enrolled in are listed. Add any missing projects. If you are dropping a project, click on **Edit** for that project and then click on **Delete**. After making sure all your projects are listed correctly, click on **Submit Enrollment**.

# HOW TO ENROLL AND CHOOSE PROJECTS

## (Re-enrolling) Members & Leaders:

- 4H families will use 4HOnline to re-enroll.
- Complete instructions for re-enrolling through 4HOnline are in this guide

## New Members and Leaders

- Go to <https://wi.4honline.com/> to fill out your family registration. Follow the step by step directions there. You will be notified by our office when your enrollment is complete and has been approved. You can use this guide to help you choose projects.

## Code of Conduct Form (4-H Member Agreement):

These are a part of the online registration.

## Volunteer Behavior Expectations:

These are also included on the online registration.

## Selecting Projects:

Refer to this Project Guide to determine the projects that suit you and the proper project level. Grade levels are suggested for most (but not all) units. A 4-H member should limit the number of projects to what he or she can reasonably accomplish in a year. *It's better to do a really good job on one or two projects than a halfway job on a bunch of projects.* Parents need to approve and support the project decisions their child makes.

## Cloverbuds (Kids in grades K-2):

Sign up for the Cloverbud project. Please see the project description in this guide. Cloverbuds may also sign up for Aerospace 1, Bicycling 1, or Woodworking 1. Cloverbuds wait until third grade to sign up for other projects.

## Project Literature is FREE to enrolled project members who request it while supplies last.....

Many good new and older printed resources are available to help you learn about your projects. Because we have a good supply on hand, we are offering what we have in stock free to project members this year. Prices listed in the Project Guide will apply to materials we do not have in stock and need to order. We will bill you after filling your order.

Inside this Project Selection Guide you will find a **Family Literature Order form** to list the names of the pieces you want to order. Orders will be filled as they are received and there will be no charge for pieces as our supply lasts. ***Please do not request literature through 4Honline because their titles/prices do not coincide with what we offer in Bayfield County.***

## Free literature for Project Leaders

Once again, Project Leader and Member guides are available to enrolled and active project leaders at no cost to encourage and support the work you do with 4-H members.

**Market Animal Sale:**

We have added Market Sale to the Project List you will find on 4HOnline. When re-enrolling, you now may add Beef Market Sale, Swine Market Sale, Sheep Market Sale, or Goat Market Sale to your project list. Signing up for these will ensure that you receive information about Market Sale meetings and requirements.

**Deadlines:**

Re-enrolling members and leaders should do so by **Oct. 31**.

New enrollments are due **Jan. 31**.

Project changes (drops & adds) must be made by **April 30**

4-H'ers enrolling after these dates may not be eligible to show at the Fair unless approved by the Executive Board.

**Dues & Insurance:**

Cloverbuds (grades K-2): \$1.00

Members (grades 3-13): \$3.00

Horse & Horseless Horse Project Members (grades 3-13): \$4.00

4-H Adult Leaders: FREE

Clubs will be responsible for paying the total dues for all of their members and leaders with one check. Check with your club leader to find out how they want to handle club dues.

**Clubs** should make checks payable to *Bayfield County Leaders Association*

**Individuals** should make checks payable to your 4-H Club

**Accident insurance** is purchased for all enrolled 4-H members in Bayfield County and is included in the yearly dues. This insurance will cover any adult-supervised group activity from club to state level, including transportation to and from events. This is a supplemental policy through American Income Life that covers up to \$2500 in medical expenses for injuries that occur during an organized 4-H activity.

**Leader Insurance:** Liability insurance is provided by Bayfield County for all **enrolled and certified** 4-H Leaders. Optional accident coverage for adult leaders (as above, American Income Life) is available for \$1.00.

(turn in to your club leader or the 4H office)

Member Names: \_\_\_\_\_

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(pieces in stock are free while supply lasts)

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## **YOUTH LEADERSHIP**

### **YOUTH LEADERSHIP LDR**

Resources: 07903, *Leadership Mentor Guide for Grades K-5*  
07904, *Leadership Mentor Guide for Grades 6-12*  
Webpage: [4h.uwex.edu/onlinpro/leadership.cfm](http://4h.uwex.edu/onlinpro/leadership.cfm)

### **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

Resource: 07905, *My Leadership Workbook for Grades 3-5*  
\$1.50/copy

### **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

Resource: 07906, *My Leadership Journal for Grades 6-8*  
\$1.50/copy

### **YOUTH LEADERSHIP 3**

What you can do in this project:

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

Grades: 9-12

Resource: 07907, *My Leadership Portfolio for Grades 9-12*  
\$1.50/copy

## **CLOVERBUDS & EXPLORING**

### **CLOVERBUD LEADER**

The Cloverbud Leader works with the youngest 4-H members in their club. They will receive a free packet of teaching materials and ideas to use with their cloverbuds. These are selected by theme from Cloverbuds—4-H Discovery Program for 6-8 Year Olds and other sources. Besides these, Cloverbud leaders may want to check out some of the other 4-H project guides written for younger members, including Aerospace 1, Bicycling 1, and Woodworking 1. There are some fun activities in these project areas that you could use with your Cloverbuds.

Resource: *Cloverbud Leader Packet*

### **CLOVERBUD 1-3 (All youth in grades K-2 sign up for this project)**

This project is for youth in grades K-2. Choose from a number of fun activities where you learn what it's about to be in 4-H and explore various project areas like Plant & Soil Science, Expressive Arts, Animal Science, and Natural Sciences.

Resource: *Cloverbud Packet* - free

Cloverbuds may also sign up for:

Aerospace 1  
Bicycling 1  
Woodworking 1

### **EXPLORING LDR**

Resources: 08172, *Exploring Treasures of 4-H Helper's Guide* - free

Webpage: [4h.uwex.edu/onlinpro/exploring.cfm](http://4h.uwex.edu/onlinpro/exploring.cfm)

### **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* - \$1.50/copy

## **SERVICE LEARNING & CITIZENSHIP**

### **SERVICE LEARNING LDR**

Resource: 08184, *Service Learning Helper's Guide*

### **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

Resource: 08182, *Agents of Change + CD* - \$1.50/copy

### **SERVICE LEARNING 2**

What you can do in this project:

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

Grades: 9-12

Resource: 08183, *Raise Your Voice + CD* - \$1.50/copy

### **CITIZENSHIP LDR**

Resource: 08154, *Citizenship Guide's Handbook*  
Webpage: [4h.uwex.edu/onlinpro/citizenship.cfm](http://4h.uwex.edu/onlinpro/citizenship.cfm)

### **CITIZENSHIP**

What you can do in this project:

- discover and discuss public issues
- plan a project that will create, change or improve your community

Grades: 4-12

Resource: 08153, *Citizenship Adventure Kit* - Free/copy

## **SELF-DETERMINED**

### **SELF-DETERMINED LDR**

Webpage: [4h.uwex.edu/onlinepro/selfdetermined.cfm](http://4h.uwex.edu/onlinepro/selfdetermined.cfm)

### **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* - Free/copy

## **ANIMAL SCIENCES**

### **Market Animal Sale:**

We have added Market Sale to the Project List you will find on 4HOnline. When re-enrolling, you now may add Beef Market Sale, Swine Market Sale, Sheep Market Sale, or Goat Market Sale to your project list. Signing up for these will ensure that you receive information about Market Sale meetings and requirements

### **BEEF LDR**

Resources: 08146, *Beef Helper's Guide*

117R, *Beef Resource Handbook* - Free loan

Webpage: [4h.uwex.edu/onlinepro/beef.cfm](http://4h.uwex.edu/onlinepro/beef.cfm)

### **BEEF 1**

What you can do in this project:

- Identify various beef breeds
- Identify parts of a beef animal
- Judge beef cattle
- Halter-break a calf, fit a steer, show a calf
- Recognize and raise a healthy animal

Grades: 3-5

Resources: 08143, *Bite Into Beef* - \$1.50/copy

4H450, *Judging Breeding & Market Cattle* - Free

4H413 *Beef Project Calendar* - Free

### **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

Resources: 08144, *Here's the Beef* - \$1.50/copy

### **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

Resources: 08145, *Leading the Charge* - \$1.50/copy

### **DAIRY GOAT LDR**

Resource: 08355, *Dairy Goat Helper's Guide*

Webpage: [4h.uwex.edu/onlinepro/goats.cfm](http://4h.uwex.edu/onlinepro/goats.cfm)

### **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

Resource: 08352, *Getting Your Goat* - \$1.50/copy

*Goat Showmanship Manual* - Free

*Dairy Goat Project Calendar* - Free

### **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

Resource: 08353, *Stepping Out* - \$1.50/copy

### **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

Resource: 08354, *Showing the Way* - \$1.50/copy

### **MEAT GOAT LDR**

Resource: 07912, *Meat Goat Helper's Guide*

Webpage: [4h.uwex.edu/onlinepro/goats.cfm](http://4h.uwex.edu/onlinepro/goats.cfm)

### **MEAT GOAT 1**

What you can do in this project:

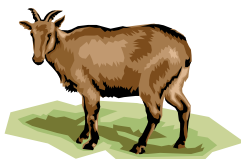
- Identify meat goat breeds and parts
- Learn to select a good animal



- Feed and care for a meat goat
- Develop a budget for a meat goat project

Grades: 3-4

Resource: 07909, *Just Browsing* - \$1.50/copy  
*Goat Showmanship Guide* - Free



### 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: 5-7

Resource: 07910, *Get Growing with Meat Goats* - \$1.50/copy

### 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

Resource: 07911, *Meating the Future* - \$1.50/copy

### DAIRY LDR

Resource: 08164, *Dairy Cattle Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/dairy.cfm](http://4h.uwex.edu/onlinpro/dairy.cfm)



### 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

Resources: 08161, *Cowabunga* - \$1.50/copy  
 4H142, *Dairy Cattle Judging Made Easy* - Free

### 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

Resources: 08162, *Mooving Ahead* - \$1.50/copy

### DAIRY 3

What you can do in this project:

- 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

Grades: 9-12

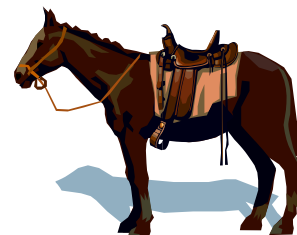
Resources: 08163, *Rising to the Top* - \$1.50/copy

### HORSE/HORSELESS HORSE LDR

Resources: 08058, *Horse Helper's Guide*

Webpage:

[4h.uwex.edu/onlinpro/horses.cfm](http://4h.uwex.edu/onlinpro/horses.cfm)



### HORSES 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

Resources: 08053, *Giddy Up & Go* - \$1.50/copy  
 CO200, *Horses & Horsemanship* - \$1.00/copy  
 CO201, *Horse Science* - \$1.00/copy  
 4H180, *Pleasure Riding* - .50/copy

### HORSES 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

Resource: 08054, *Head, Heart & Hooves* - \$1.50/copy

### HORSES 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

Resource: 08055, *Stable Relationships* - \$1.50/copy

### HORSES 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

Resource: 08056, *Riding the Range* - \$1.50/copy

### HORSES 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

Resource: 08057, *Jumping to New Heights* - \$1.50/copy

### 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

Resource: 08053, *Giddy Up & Go* - \$1.50/copy  
4H266, *Horses are Fun* - Free

### 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

Resource: 08054, *Head, Heart & Hooves* - \$1.50/copy

### 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

Resource: 08055, *Stable Relationships* - \$1.50/copy

### 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

Resource: 4H181, *Draft Horse* - Free

### MODEL HORSES

Resource: 4H244 *My Model Horse Project Record Book*-free

### CLOTHES HORSE LDR

Resource: 4H360, *4-H Clothes Horse Activity Guide*

Webpage: [4h.uwex.edu/onlinpro/horses.cfm](http://4h.uwex.edu/onlinpro/horses.cfm)



### 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

Resources: 4H374, *Additional Patterns for Clothes Horse* - Free  
4H389, *Horse & Riding Attire* - .50/copy

### SWINE LDR

Resources: 08068, *Swine Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/swine.cfm](http://4h.uwex.edu/onlinpro/swine.cfm)

### 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

Resources: 08065, *The Incredible Pig* - \$1.50/copy  
4H412, *Judging Breeding & Market Swine* -Free  
4H420, *Market Hog Project Calendar* - Free

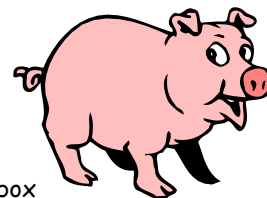
### SWINE 2

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

Resources: 08066, *Putting the Oink in the Pig* - \$1.50/copy



### 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

Resources: 08067, *Going Whole Hog* - \$1.50/copy

### POULTRY LDR

Resource: 06366, *Poultry Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/poultry.cfm](http://4h.uwex.edu/onlinpro/poultry.cfm)

### 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

Resources: 06363, *Scratching the Surface* - \$1.50/copy  
CIR878, *From Egg to Chick* - Free

### 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

Resources: 06364, *Testing Your Wings* - \$1.50/copy  
4H281, *Poultry for Fun & Food* - .50/copy  
A2880, *Chicken Breeds & Varieties* - .50/copy

### 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

Resources: 06365, *Flocking Together* - \$1.50/copy

### 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

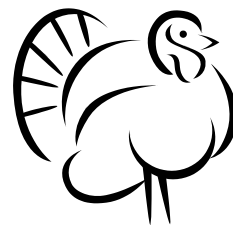
Grades: 3-12

Resources: A3311, *Raising Waterfowl* - Free

### 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

Resources: NCR060, *Small Turkey Flock Management* - Free

### 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

Resources: NCR209, *Bantams* - Free

### 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

Resource: 4H135, *Pigeons* - Free

### SHEEP LDR

Resources: 06370, *Sheep Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/sheep.cfm](http://4h.uwex.edu/onlinpro/sheep.cfm)

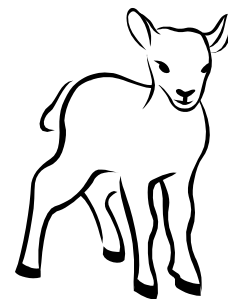
### SHEEP 1

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

Resources: 06367, *Lambs, Rams and You* - \$1.50/copy  
4H421, *Judging Breeding & Market Sheep* - Free  
Market Lamb Project Calendar - Free



### 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

Resources: 06368, *Shear Delight* - \$1.50/copy

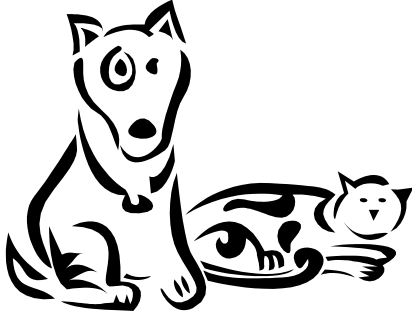
### **SHEEP 3**

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

Resources: 06369, *Leading the Flock* - \$1.50/copy



### **CATS LDR**

Resource: 08151, *Cat Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/cats.cfm](http://4h.uwex.edu/onlinpro/cats.cfm)

### **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

Resource: 08148, *Purr-fect Pals* - \$1.50/copy

### **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

Resource: 08149, *Climbing Up!* - \$1.50/copy

### **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

Resource: 08150, *Leaping Forward* - \$1.50/copy  
NCR413, *Cat Connections* - Free

### **DOGS LDR**

Resources: 08169 *Dog Helper's Guide*

4H458, *4-H Dog Judging Guidelines*

Webpage: [4h.uwex.edu/onlinpro/dogs.cfm](http://4h.uwex.edu/onlinpro/dogs.cfm)

### **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

Resources: 08166, *Wiggles and Wags* - \$1.50/copy

4H436, *The Basics of Training Your Dog* - Free

4H458, *4-H Dog Judging Guidelines* - Free

### **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

Resources: 08167, *Canine Connection* - \$1.50/copy

4H439, *Dog Obedience - Novice & Beyond* - Free

### **DOGS 3**

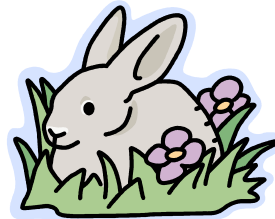
What you can do in this project:

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

Grades: 9-12

Resources: 08168, *Leading the Pack* - \$1.50/copy

4H437, *A Guide to Showmanship* - .50/copy



### **RABBITS LDR**

Resource: 08083, *Rabbit Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/rabbits.cfm](http://4h.uwex.edu/onlinpro/rabbits.cfm)

### **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

Resource: 08080, *What's Hopping?* - \$1.50/copy  
*Rabbit Showmanship* - Free  
*WI 4H Rabbit Project* - Free

## RABBITS 2

What you can do in this project:

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

Grades: 6-8

Resource: 08081, *Making Tracks* - \$1.50/copy

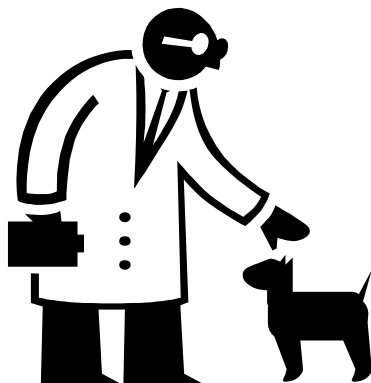
## RABBITS 3

What you can do in this project:

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

Grades: 9-12

Resource: 08082, *All Ears* - \$1.50/copy



## VETERINARY SCIENCE LDR

Resources: 08051, *Veterinary Science Helper's Guide*  
4H323, *The Normal Animal*  
Webpage: [4h.uwex.edu/onlinpro/vetscience.cfm](http://4h.uwex.edu/onlinpro/vetscience.cfm)

## 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

Resources: 08048, *From Airedales to Zebras* \$1.50/copy  
4H131, *The Normal Animal* - \$2.50/copy

## 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

Resources: 08049, *All Systems Go* - \$1.50/copy  
4H048, *Animal Disease* - \$2.50/copy

## 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

Resources: 08050, *On the Cutting Edge* - \$1.50/copy  
4H133, *Animal Health* - \$2.50  
(old version 4H133 - free)

## PETS LDR

Resource: 06362, *Pet Helper's Guide*  
Webpage: [4h.uwex.edu/onlinpro/pets.cfm](http://4h.uwex.edu/onlinpro/pets.cfm)

## 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

Resource: 06359, *Pet Pals* - \$1.50/copy

## 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

Resource: 06360, *Scurrying Ahead* - \$1.50/copy

## 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

Resource: 06361, *Scaling the Heights* - \$1.50/copy



## **ARTS & COMMUNICATION**

### **PHOTOGRAPHY LDR**

Webpage: [4h.uwex.edu/onlinpro/photography.cfm](http://4h.uwex.edu/onlinpro/photography.cfm)

Resource: Adventures with Adjustable Cameras (older member manual) - Free

### **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

Resource: PC1, *Focus on Photography* - \$2.00/copy



### **PHOTOGRAPHY 2**

What you can do in this project:

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

Grades: 6-8

Resource: PC2, *Controlling the Image* - \$2.00/copy

### **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

Resource: PC3, *Mastering Photography* - \$2.00/copy

### **SCRAPBOOKING**

Resource: FG108 *4-H Scrapbooking* - Free

### **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

Resource: IS401, *Action! Making Videos & Movies* - Free

### **COMMUNICATIONS LDR**

Resources: BU8159, *Communications Helper's Guide*

COMM04, *Voices From the Past*

COMM05, *It's All in the Family*

COMM07, *Communication Activities for 4-H Clubs*

Webpage: [4h.uwex.edu/onlinpro/communications.cfm](http://4h.uwex.edu/onlinpro/communications.cfm)

### **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

Resource: 08156, *Picking Up the Pieces* - \$1.50/copy

### **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

Resource: 08157, *Putting It Together* - \$1.50/copy

### **COMMUNICATIONS 3**

What you can do in this project:

- Polish your communication skills
- Develop a public presence by speaking in public
- Explore communication careers
- Write resumes and interview for a job
- Develop presentations

Grades: 9-12

Resource: 08158, *The Perfect Fit* - \$1.50/copy



### **SPEAKING/DEMONSTRATIONS**

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* - Free

COMM06, *4-H Public Speaking Opportunities* -

Free

*Give a Talk* - Free

*Let's Demonstrate* - Free

*Making Posters* - Free



### **CREATIVE WRITING**

Grades: 3-12

Resources: COMM01, *Creative Woodworking* - Free

COMM03, *Crazy About Books Reading Circle* -

Free

### **ARTS/CRAFTS LDR**

Resource: 07597, *Arts & Crafts - A Palette of Fun*

Webpage: [4h.uwex.edu/onlinpro/artsandcrafts.cfm](http://4h.uwex.edu/onlinpro/artsandcrafts.cfm)

**Note:** *Palette of Fun*, *Sketchbook Crossroads*, and *Portfolio Pathways* are being discontinued but will be provided as the supply lasts (ASL).

## 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

Resources: 23112, *Elements and Principles of Design Card* - Free  
4H472, *Palette of Fun Member Sheet & Introduction* - Free



## 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

Resources: 08140, *Advanced Visual Arts: Sketchbook Crossroads (includes drawing, fiber, sculpture)* - \$2.50/copy  
08141, *Advanced Visual Arts: Portfolio Pathways (includes painting, printing, graphic design)* - \$2.50/copy

## LEATHERCRAFT LDR

Resource: CIR006, *Adventures in Leathercraft Leaders Guide*

Webpage: [4h.uwex.edu/onlinpro/leathercraft.cfm](http://4h.uwex.edu/onlinpro/leathercraft.cfm)

## 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

Resource: 4H149, *Adventures in Leathercraft Members Guide* .50/copy

## BLOCK PRINTING LDR

Resource: CIR008, *Block Printing Leaders Guide*

Webpage: [4h.uwex.edu/onlinpro/blockprinting.cfm](http://4h.uwex.edu/onlinpro/blockprinting.cfm)

## 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

Resource: 4H156, *Block Printing Members Guide* - Free

## METAL ENAMELING LDR

Resource: CIR009, *Metal Enameling Leaders Guide*

Webpage: [4h.uwex.edu/onlinpro/metalenameling.cfm](http://4h.uwex.edu/onlinpro/metalenameling.cfm)

## 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

Resource: 4H158, *Metal Enameling Members Guide* - Free

## DRAWING & PAINTING LDR

Webpage: [4h.uwex.edu/onlinpro/drawing.cfm](http://4h.uwex.edu/onlinpro/drawing.cfm)

## 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
- Paint with oil and acrylics
- Mix colors, mat and frame your artwork



Grades: 3-12

Resource: 4H169, *Drawing & Painting* - Free

## MACRAME

Resource: *Quick Knots* - Free

## POTTERY

## CERAMICS

Resource: *Ceramics - The World's Most Famous Hobby* - Free

## THEATRE ARTS LDR

Resource: 08073, *Theatre Arts Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/theatre.cfm](http://4h.uwex.edu/onlinpro/theatre.cfm)

## THEATRE ARTS 1

What you can do in this project:

- Study acting from sound, movement, voice and speech
- Learn different ways to play a scene
- Try pantomime, clowning and improvisation

Grades: 3-5

Resource: 08070, *Play the Role* - \$1.50/copy

## 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

Resource: 08071, *Become a Puppeteer!* - \$1.50/copy

### THEATRE ARTS 3

What you can do in this project:

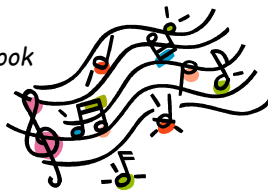
- Study costumes, makeup, stage sets, props and sound
- Learn stage management
- Create sounds and disguises
- Make up your own character and bring it to life

Grades: 9-12

Resource: 08072, *Set the Stage* - \$1.50/copy

### MUSIC LDR

Resource: 4H351, *Sing Along Songbook*



### 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* - Free

## FAMILY, HOME & HEALTH

### INTERGENERATIONAL PROGRAMS LDR

Resource: NCR548, *Walk in My Shoes Leaders Guide*

Webpage: [4h.uwex.edu/onlinepro/intergenerational.cfm](http://4h.uwex.edu/onlinepro/intergenerational.cfm)

### 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* - \$1.50/copy

### CHILD DEVELOPMENT LDR

Resource: 08078, *Child Development Helper's Guide*

Webpage: [4h.uwex.edu/onlinepro/childdev.cfm](http://4h.uwex.edu/onlinepro/childdev.cfm)

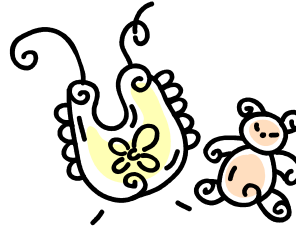
### CHILD DEVELOPMENT 1

What you can do in this project:

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

Grades: 3-4

Resource: 08075, *Growing On My Own* - \$1.50/copy



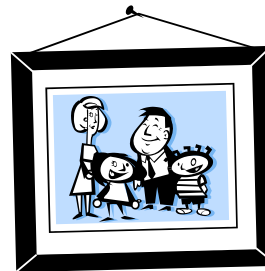
### CHILD DEVELOPMENT 2

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, prepare healthy meals
- Check for safety hazards

Grades: 5-6

Resource: 08076, *Growing With Others* - \$1.50/copy



### 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

Resource: 08077, *Growing in Communities* - \$1.50/copy

### CLOTHING LDR

Resource: 08063, *Sewing Expressions Helper's Guide*

Webpage: [4h.uwex.edu/onlinepro/clothing.cfm](http://4h.uwex.edu/onlinepro/clothing.cfm)

### CLOTHING 1

What you can do in this project:

- Identify sewing tools and machine parts
- Thread a sewing machine, identify fabrics
- Select and purchase a pattern, sew and clip a seam
- Sort clothes for laundry, remove stains
- Donate a sewing project

Grades: 3-5



Resources: 08060, *Under Construction* - \$1.50/copy  
 07198, *Let's Sew! Beginner's Sewing Guide* - \$2.00/copy  
 4H454, *Sew Quick II, Quality Construction Techniques* - Free

## 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

Resource: 08061, *Fashion Forward* - \$1.50/copy



## CLOTHING 3

What you can do in this project:

- Use specialized sewing tool 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

Resource: 08062, *Refine Design* - \$1.50/copy

## CROCHETING LDR

Webpage: [4h.uwex.edu/onlinepro/crocheting.cfm](http://4h.uwex.edu/onlinepro/crocheting.cfm)



## CROCHETING

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

Resource: CC1403, *Crochet Made Easy* - \$1.50/copy

## CAKE DECORATING

Resource: *Cake Decorating* - Free

## FOODS & NUTRITION LDR

Resource: 07730, *Foods Curriculum Helper's Guide*

Webpage: [4h.uwex.edu/onlinepro/foodsnutrition.cfm](http://4h.uwex.edu/onlinepro/foodsnutrition.cfm)



## FOODS & NUTRITION 1

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

Grades: 3-4

Resource: 07144, *Six Easy Bites* - \$1.50/copy

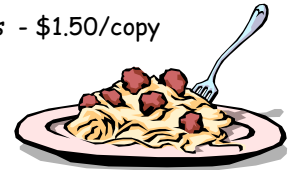
## FOODS & NUTRITION 2

What you can do in this project:

- 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

Grades: 5-6

Resource: 07146, *Tasty Tidbits* - \$1.50/copy



## 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

Resource: 07148, *You're the Chef* - \$1.50/copy

## 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

Resource: 07150, *Foodworks* - \$1.50/copy

## FOODS PRESERVATION LDR

Webpage: [4h.uwex.edu/onlinepro/foodsnutrition.cfm](http://4h.uwex.edu/onlinepro/foodsnutrition.cfm)

## FOODS PRESERVATION

What you can do in this project:

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

Grades: 6-12

Resources: BO430, *Canning Fruits Safely* - \$1.00/copy

B1159, *Canning Vegetables Safely* - \$1.00/copy

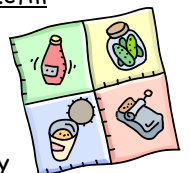
B2267, *Homemade Pickles and Relishes* - \$1.00/copy

B2605, *Tomatoes Tart and Tasty* - \$1.00/copy

B2909, *Making Jams, Jellies and Fruit Preserves* - \$1.00/copy

B3278, *Freezing Fruits and Vegetables* - \$1.00/copy

B3345, *Canning Meat, Wild Game, Poultry and Fish Safely* - \$1.00/copy



B3570, *Canning Salsa Safely* - \$1.00/copy

Resource: 4H427, *Where I Live* - .50/copy

## PERSONAL FINANCE LDR

Resource: 07712, *Financial Champions Helper's Guide*

### PERSONAL FINANCE 1

What you can do in this project:

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

Grades: 6-8

Resource: 07710, *Money FUNdamentals* - \$1.50/copy



### 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

Resource: 07711, *Money Moves* - \$1.50/copy



## HOME ENVIRONMENT LDR

Webpage: [4h.uwex.edu/onlinpro/homeenv.cfm](http://4h.uwex.edu/onlinpro/homeenv.cfm)

### 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

Resource: 4H425, *Exploring Your Home* - .50/copy

### 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

Resource: 4H426, *Living With Others* - .50/copy

### 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, restore furniture
- Create a welcoming environment outside your home

Grades: 8-9

## HOME ENVIRONMENT 4

What you can do in this project:

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

Grades: 10-12

Resource: 4H465, *In My Home* - .50/copy



## KNITTING LDR

Webpage: [4h.uwex.edu/onlinpro/knitting.cfm](http://4h.uwex.edu/onlinpro/knitting.cfm)

### 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

Grades: 3-12

Resources: CC1402, *Knitting Made Easy* - \$3.00/copy  
4H *Knitting Skills* - free

## CONSUMER SAVVY LDR

Resource: 08033, *Consumer Savvy Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/consumersavvy.cfm](http://4h.uwex.edu/onlinpro/consumersavvy.cfm)

### 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

Resource: 08030, *The Consumer in Me* - \$1.50/copy

### 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

Resource: 08031, *Consumer Wise* - \$1.50/copy

### 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

Resource: 08032, *Consumer Roadmaps* - \$1.50/copy

## HEALTH LDR

Webpage: [4h.uwex.edu/onlinpro/health.cfm](http://4h.uwex.edu/onlinpro/health.cfm)



### 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

Resource: 08174, *First Aid in Action* - \$1.50/copy

### 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

Resource: 08175, *Staying Healthy* - \$1.50/copy

### 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

Resource: 08176, *Keeping Fit* - \$1.50/copy

## MECHANICAL SCIENCES

### BICYCLING LDR

Resources: 08336, *Bicycle Helper's Guide*

087507, *Bicycle Fix It! (DVD)* - Free Loan

Webpage: [4h.uwex.edu/onlinpro/bicycling.cfm](http://4h.uwex.edu/onlinpro/bicycling.cfm)



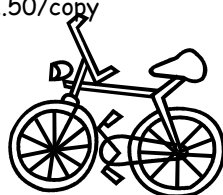
### BICYCLING 1

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

Resource: 08334, *Bicycling for Fun* - \$1.50/copy



### BICYCLING 2

What you can do in this project:

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

Grades: 4-6

Resource: 08335, *Wheels in Motion* - \$1.50/copy

## COMPUTERS LDR

Resource: 08349, *Teens Teaching Tech*

Webpage: [4h.uwex.edu/onlinpro/computer.cfm](http://4h.uwex.edu/onlinpro/computer.cfm)

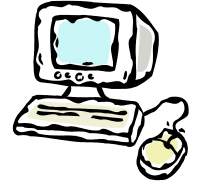
### COMPUTERS 1

What you can do in this project:

- Learn about hardware, software and various applications
- Explore how they work, what are the components
- Learn the various programs and their features
- Participation is supported by an interactive website

Grades: 3-5

Resource: 08346, *Newbie Know How* - \$1.50/copy



### 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

Resource: 08347, *Inside the Box* - \$1.50/copy

### 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

Resource: 08348, *Peer to Peer* - \$1.50/copy

## ELECTRICITY LDR

Resource: 06852, *Electric Excitement Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/electricity.cfm](http://4h.uwex.edu/onlinpro/electricity.cfm)



### ELECTRICITY 1

What you can do in this project:

- Understand how to use electricity
- Identify electrical materials, build a flashlight
- Build and test a switch, wire a simple circuit
- Build and test a compass, build an electric motor

Grades: 4-5

Resource: 06848, *Magic of Electricity* - \$1.50/copy

### 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

Resource: 06849, *Investigating Electricity* - \$1.50/copy

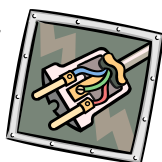
### ELECTRICITY 3

What can I do in this project:

- Develop a basic electrical tool and supply kit
- Understand the symbols on wires and cables
- Replace a wall switch, locate your home wiring system

Grades: 8-9

Resource: 06850, *Wired for Power* - \$1.50/copy



### ELECTRICITY 4

What you can do in this project:

- Identify electrical and electronic parts and devices
- Learn how to solder and prepare parts for assembly
- Assemble a circuit using a transistor
- Use a photocell to activate an alarm
- Build an amplifier to power a speaker

Grades: 10-12

Resource: 06851, *Entering Electronics* - \$1.50/copy

### SMALL ENGINES LDR

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

Webpage: [4h.uwex.edu/onlinpro/engine.cfm](http://4h.uwex.edu/onlinpro/engine.cfm)

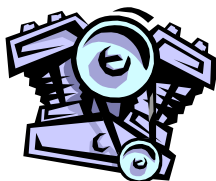
### SMALL ENGINES 1

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

Resource: 08186, *Crank It Up!* - \$1.50/copy



### SMALL ENGINES 2

What you can do in this project:

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

Grades: 6-8

Resource: 08187, *Warm It Up!* - \$1.50/copy

### 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

Resource: 08188, *Tune It Up!* - \$1.50/copy

### SCALE MODELS LDR

Webpage: [4h.uwex.edu/onlinpro/scalemodels.cfm](http://4h.uwex.edu/onlinpro/scalemodels.cfm)

### SCALE MODELS

What you can do in this project:

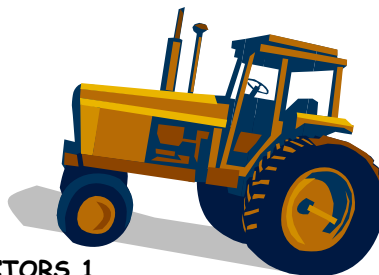
- Assemble and create scale models of trains, cars, etc.
- Learn how to obtain materials you need in construction
- Learn to display your model and judge it

Grades: 3-12

Resource: 4H424, *Guidelines for Building Scale Models* - Free

### TRACTORS LDR

Webpage: [4h.uwex.edu/onlinpro/tractors.cfm](http://4h.uwex.edu/onlinpro/tractors.cfm)



### TRACTORS 1

What you can do in this project:

- Learn and identify parts of the tractor, 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)

Resource: 4H961, *Starting Up: Getting to Know Your Tractor* \$1.50/copy

### 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)

Resource: 4H962, *Tractor Operations: Gearing Up for Safety* - \$1.50/copy

### 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)



Resource: 4H963, *Moving Out: Learning About Your Tractor & Farm Machinery* - \$1.50/copy

#### 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)

Resource: 4H964, *Learning More: Learning About Agricultural Tractors & Equipment* - \$1.50/copy

#### WOODWORKING LDR

Resource: 06879, *Woodworking Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/wood.cfm](http://4h.uwex.edu/onlinpro/wood.cfm)



#### WOODWORKING 1

What you can do in this project:

- Learn safety practices when working with wood and tools
- Use various hand tools: hammer, handsaw
- Identify types of nails and wood
- Sand and paint a piece of wood

Grades: 2-4

Resource: 08675, *Measuring Up* - \$1.50/copy

#### WOODWORKING 2

What you can do in this project:

- Identify functions of various tools
- Practice safety techniques
- Select a project to build (birdhouse, foot stool)
- Use a screwdriver and combination square

Grades: 4-6

Resource: 06876, *Making the Cut* - \$1.50/copy

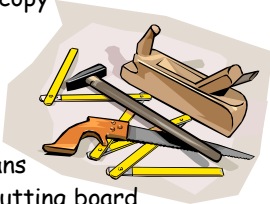
#### WOODWORKING 3

What you can do in this project:

- Compare different types of hinges
- Enlarge scale-drawn woodworking plans
- Use a hand plane, build a laminated cutting board
- Compare different grades of plywood

Grades: 6-8

Resource: 06877, *Nailing It Together* - \$1.50/copy



#### 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

Resource: 06878, *Finishing Up* - \$1.50/copy

### NATURAL RESOURCES &

## ENVIRONMENTAL EDUCATION

#### EXPLORING YOUR ENVIRONMENT LDR

Resources: 07707, *Exploring Your Environment Helper's Guide*  
PUB-CE-456, Education Connection

- List of Free DNR Resources

Webpage: [4h.uwex.edu/onlinpro/naturespace.cfm](http://4h.uwex.edu/onlinpro/naturespace.cfm)

#### EXPLORING YOUR ENVIRONMENT 1

What you can do in this project:

- Explore the four elements of life- sun, air, water & 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

Resource: 07704, *Eco-Wonders* - \$1.50/copy

#### 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

Resource: 07705, *Eco-Adventures* - \$1.50/copy

#### 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

Resource: 07706, *Eco-Actions* - \$1.50/copy



#### 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

Resource: 4H392, *Wildflowers* - \$1.50/copy

Webpage: [4h.uwex.edu/onlinpro/wildflowers.cfm](http://4h.uwex.edu/onlinpro/wildflowers.cfm)

#### BIRDS

What you can do in this project:

- Learn about the birds in your community
- Learn about how birds live, migrate and defend territory
- Learn how to watch, identify, band and photograph birds
- Learn how to build bird feeders and bluebird houses

Grades:

Resource: 4H4340, *Getting to Know Birds* - \$1.50/copy



## FORESTRY LDR

Resource: 08041, *Forestry Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/forestry.cfm](http://4h.uwex.edu/onlinpro/forestry.cfm)

## 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

Resource: 08038, *Follow the Path* - \$1.50/copy

## FORESTRY 2

What you can do in this project:

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

Grades: 6-8

Resource: 08039, *Reach for the Canopy* - \$1.50/copy

## 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

Resource: 08040, *Explore the Deep Woods* - \$1.50/copy

## ADVENTURES LDR

Resource: 4H443, *4-H Adventure Project*

Webpage: [4h.uwex.edu/onlinpro/adventures.cfm](http://4h.uwex.edu/onlinpro/adventures.cfm)

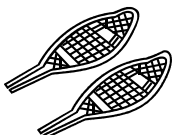
## ADVENTURES

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

Resource: 4H444, *Introduction to Adventures* - \$1.50/copy



## 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

Resource: 4H448, *4-H Adventure Project - Winter Travel* - \$1.50/copy

Webpage: [4h.uwex.edu/onlinpro/wintertravel.cfm](http://4h.uwex.edu/onlinpro/wintertravel.cfm)

## 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

Resource: 4H447, *4-H Adventure Project - Canoeing* - \$1.50/copy

Webpage: [4h.uwex.edu/onlinpro/canoeing.cfm](http://4h.uwex.edu/onlinpro/canoeing.cfm)



## BICYCLING

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

Resource: 4H446, *4-H Adventure Project - Bicycling* - \$1.50/copy

Webpage: [4h.uwex.edu/onlinpro/bicyclingnr.cfm](http://4h.uwex.edu/onlinpro/bicyclingnr.cfm)

## CROSS COUNTRY SKIING



## BACKPACKING & HIKING LDR

Resource: 08046, *Outdoor Adventures Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/backpacking.cfm](http://4h.uwex.edu/onlinpro/backpacking.cfm)

## BACKPACKING & HIKING 1

What you can do in this project:

- Plan a day hike, select items, 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

Resource: 08043, *Hiking Trails* - \$1.50/copy



## 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

Resource: 08044, *Camping Adventures* - \$1.50/copy

## 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

Resource: 08045, *Backpacking Expeditions* - \$1.50/copy



## ENTOMOLOGY LDR

Resource: 06856, *Entomology Group*

*Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/entomology.cfm](http://4h.uwex.edu/onlinpro/entomology.cfm)

## ENTOMOLOGY 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 ways they communicate and move

Grades: 3-5

Resource: 06853, *Creepy Crawlies* - \$1.50/copy



## ENTOMOLOGY 2

What you can do in this project:

- Learn how an insect protects itself
- Explore their habitats, create an insect display
- Investigate entomology careers
- Build an insect extractor

Grades: 6-8

Resource: 06854, *What's Bugging You?* - \$1.50/copy

## ENTOMOLOGY 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

Resource: 06855, *Dragons, Houses, and Other Flies* - \$1.50/copy

## BEEES

Resource: 4H279, *4H Bee Project* - Free

## SHOOTING SPORTS LDR

Resource: 4H428, *4-H Shooting Sports Program*

Webpage: [4h.uwex.edu/onlinpro/shooting/index.cfm](http://4h.uwex.edu/onlinpro/shooting/index.cfm)

## ARCHERY LDR

Resource: 4H429, *4-H Shooting Sports - Basic Archery* - Free

## 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

## AIR PISTOL LDR

Resource: 4H431, *4-H Shooting Sports - Basic Air Pistol* - Free

## 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 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 LDR

Resource: Each Air Rifle Leader should attend a Certification Training to receive the *Air Rifle Guide* and *WI Shooting Sports Basic 4-H Guidelines*. For more information see webpage.

Webpage: [4h.uwex.edu/onlinpro/shooting/index.cfm](http://4h.uwex.edu/onlinpro/shooting/index.cfm)

## HUNTING LDR

Resource: 4H434A, *4-H Shooting Sports Basic Hunting* - free



## 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

## SHOTGUN LDR

Resource: 4H433, *4-H Shooting Sports - Basic Shotgun* - Free

## 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

Grades: 3-12

## MUZZLELOADING LDR

Resource: 4H430, *4-H Shooting Sports - Basic Muzzleloading* - Free

## MUZZLELOADING

What you can do in this project:

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

Grades: 3-12

## RECYCLING LDR

Webpage: [4h.uwex.edu/onlinpro/recycling.cfm](http://4h.uwex.edu/onlinpro/recycling.cfm)

## 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

Resource: 4H362, *Recycling for Reuse* - Free



## WATER LDR

Webpage: [4h.uwex.edu/onlinpro/water.cfm](http://4h.uwex.edu/onlinpro/water.cfm)

## WATER

What you can do in this project:

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

Grades: 3-12

Resource: 4H855, *Give Water A Hand - Action Guide* - Free

## FISHING LDR

Webpage: [4h.uwex.edu/onlinpro/sportfishing.cfm](http://4h.uwex.edu/onlinpro/sportfishing.cfm)

Resource: 07601, *Sport Fishing, Helper's Guide*

## 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

Resource: 07598, *Take the Bait* - \$1.50/copy

## 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

Resource: 07599, *Reel in the Fun* - \$1.50/copy

## FISHING 3

What you can do in this project:

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



Grades: 9-12

Resource: 07600, *Cast into the Future* - \$1.50/copy

## ASTRONOMY

Resource: *Astronomy Brochure* - Free



## PLANT & SOIL SCIENCES

### CROPS LDR

#### 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

Resources: 4H355, *4-H Corn Project Manual*

4H440, *Marketing Your 4-H Crops*

4H441, *Is Direct Marketing for My Project?*

RS1, *Record Sheet - Crops Management*

Webpage: [4h.uwex.edu/onlinpro/corn.cfm](http://4h.uwex.edu/onlinpro/corn.cfm)



## 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

Resources: 4H349, *Pest Scouting Alfalfa* - Free

4H440, *Marketing Your 4-H Crops* - Free

Webpage: [4h.uwex.edu/onlinpro/forage.cfm](http://4h.uwex.edu/onlinpro/forage.cfm)

## 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

Resources: 4H356, *4-H Small Grains Manual*

4H440, *Marketing Your 4-H Crops*

4H441, *Is Direct Marketing for My Project?*

RS1, *Record Sheet - Crops Management*

Webpage: [4h.uwex.edu/onlinpro/smallgrains.cfm](http://4h.uwex.edu/onlinpro/smallgrains.cfm)

## FRUITS LDR

Webpage: [4h.uwex.edu/onlinpro/fruits.cfm](http://4h.uwex.edu/onlinpro/fruits.cfm)

## FRUITS

What you can do in this project:

- Produce fruits from apples to grape
- Select the best fruit cultivar for your home garden
- Decide what fruit you want to learn about

Grades: 3-12

Resources: A1597, *Growing Strawberries in Wisconsin* - \$1.00/copy

A1610, *Growing Raspberries in Wisconsin* - \$1.00/copy

A1656, *Growing Grapes in Wisconsin* - \$1.00/copy

A1960, *Growing Currants, Gooseberries, and Elderberries in WI* - \$1.00/copy

A2072, *Growing Pear in Wisconsin* - \$1.00/copy



## 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

Resources: 07162, *Gardening: See Them Sprout* - \$1.50/copy

A2801, *Growing Vegetables at Home* - Free

4H395, *Organically Grown - Handbook* - \$1.50/copy

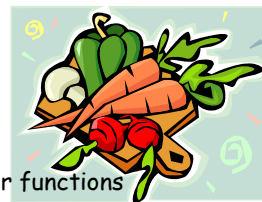
4H409, *Nature's Herbs* - Free

A3306, *Exhibiting & Judging Vegetables* - Free

4H160, *Selecting & Preparing Vegetables for Display* - Free

A3382, *Container Gardening* - Free

A2727, *Harvesting Vegetables from the Home Garden* - Free



## VEGETABLES 2

What you can do in this project:

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

Grades: 6-8

Resource: 07163, *Gardening: Let's Get Growing* - \$1.50/copy

BU7154, *Branching Out* - free (ASL)

A2801, *Growing Vegetables at Home* - Free

(See unit 1 for additional resources)

## VEGETABLES 3

What you can do in this project:

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

Grades: 9-12

Resource: 07164, *Gardening: Take Your Pick* - \$1.50/copy

BU7155, *Digging Deeper* - free (ASL)

A2801, *Growing Vegetables at Home* - Free

(See unit 1 for additional resources)



## VEGETABLE 4

What you can do in this project:

- Growing vegetables for profits

Resource: 07165, *Gardening: Growing Profits* - \$1.50/copy  
(See unit 1 for additional resources)

## HOUSE PLANTS LDR

Resource: BU7156, *4-H Horticulture Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/houseplants.cfm](http://4h.uwex.edu/onlinpro/houseplants.cfm)

## VEGETABLES LDR

Resource: 07166, *Gardening Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/vegetables.cfm](http://4h.uwex.edu/onlinpro/vegetables.cfm)

## HOUSE PLANTS 1

What you can do in this project:

- Identify plant parts and their functions
- Grow house plants, start a plant from a cutting
- Make a dish garden,
- Prepare house plants for exhibit

Grades: 3-5

Resources: 4H328, *Propagating and Growing House Plants* - Free



## 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

Resources: 4H328, *Propagating and Growing House Plants* - Free



## 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

Resources: 4H328, *Propagating and Growing House Plants* - Free

## PLANT CRAFTS LDR

Webpage: [4h.uwex.edu/onlinpro/plantcrafts.cfm](http://4h.uwex.edu/onlinpro/plantcrafts.cfm)

### 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, etc.

Grades: 3-12

Resources: 4H330, *Plant Crafts* - Free  
4H453, *Plant Crafts Supplement* - Free

## FLOWERS LDR

Resource: BU7156, *4-H Horticulture Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/flowers.cfm](http://4h.uwex.edu/onlinpro/flowers.cfm)

### 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 an exhibit

Grades: 3-5

Resources: 4H1301A, *Forcing Spring Flowering Bulbs* - Free  
A2935, *Evaluating & Judging Flowers & Indoor Plants* - Free  
A3382, *Container Gardening* - Free

### 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

Resource: A3382, *Container Gardening* - Free



### 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

Resource: A3382, *Container Gardening* - Free

## HOME GROUNDS LDR

Webpage: [4h.uwex.edu/onlinpro/homegrounds.cfm](http://4h.uwex.edu/onlinpro/homegrounds.cfm)

### HOME GROUNDS 1

What you can do in this project:

- Learn about seeding and lawn care
- Learn lawn maintenance, fertilization and pest management

Grades: 3-5

Resource: 4H321, *4-H Lawn Care* - Free

### HOME GROUNDS 2

What you can do in this project:

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

Grades: 6-8

Resources: A3067, *Selecting, Planting & Caring for Shade Trees* - Free  
A1730, *Evergreens - Planting & Care* - Free

### HOME GROUNDS 3

What you can do in this project:

- Explore landscape planning
- Make a plan and put it on paper

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

Grades: 9-12

Resource: G1923, *Planning & Designing Your Home Landscape* - \$1.00/copy

## **INTERNATIONAL PROGRAMS**

### **INTERNATIONAL LDR**

Resource: 4H812, *And My World*

Webpage: [4h.uwex.edu/onlinpro/international.cfm](http://4h.uwex.edu/onlinpro/international.cfm)

### **INTERNATIONAL**

What you can do in this project:

- Explore the world around you with 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

Resource: 4H812, *And My World* - Free



## **STEM (Science, Technology, Engineering & Math)**

### **AEROSPACE LDR**

Resource: 06846, *Aerospace Adventures Helper's Guide*

Webpage: [4h.uwex.edu/onlinpro/aerospace.cfm](http://4h.uwex.edu/onlinpro/aerospace.cfm)

### **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

Resource: 06842, *Pre-Flight*

### **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

Resource: 06843, *Lift Off*

### **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

Resource: 06844, *Reaching New Heights*

### **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 affects of gravity
- Explore life in space and aerospace careers

Grades: 9-12

Resource: 06845, *Pilot in Command*

### **GEOSPATIAL LDR**

Webpage: [4h.uwex.edu/onlinpro/geospatial.cfm](http://4h.uwex.edu/onlinpro/geospatial.cfm)

### **GEOSPATIAL 1**

What you can do in this project:

- Discover ways of thinking about geographic positions
- Learn about navigational tools: GIS, GPS, compasses
- Learn to measure distances

Grades: 4-12

Resource: CD8358, *Exploring Spaces, Going Places CD* ("Getting Out" section)



### **GEOSPATIAL 2**

What you can do in this project:

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

Grades: 4-12

Resource: CD8358, *Exploring Spaces, Going Places CD* ("On the Trail" section)

### **GEOSPATIAL 3**

What you can do in this project:

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

Grades: 4-12

Resource: CD8358, *Exploring Spaces, Going Places CD* ("Reaching Your Destination" section)

### **ROBOTICS LDR**

Resources: 08434, *Robotics Platforms Track DVD*

Webpage: [4h.uwex.edu/onlinpro/robotics.cfm](http://4h.uwex.edu/onlinpro/robotics.cfm)

## **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

Resource: 08431, *Junk Drawer Robotics Track Level 1: Give Robots a Hand*  
08435, *4-H Robotics Youth Notebook*  
08430, *Virtual Robotics Track DVD*

## **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

Resource: 08432, *Junk Drawer Robotics Track Level 2: Robots on the Move*  
08435, *4-H Robotics Youth Notebook*  
08430, *Virtual Robotics Track DVD*

## **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

Resource: 08433, *Junk Drawer Robotics Track Level 3: Mechatronics*  
08435, *4-H Robotics Youth Notebook*  
08430, *Virtual Robotics Track DVD*

## **WIND ENERGY**

Resource: 08383, *The Power of the Wind Youth Guide*

### **Leader Resources**

Resource: 08384, *The Power of the Wind Facilitator Guide*

Webpage: <http://www.uwex.edu/ces/4h/set/index.cfm>