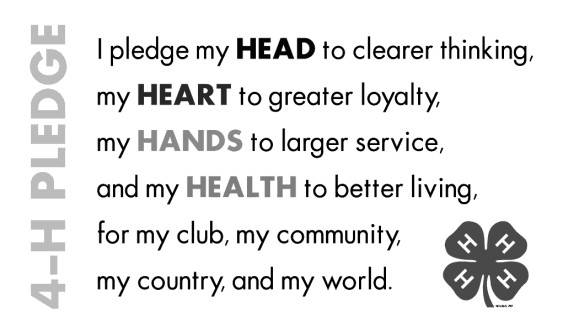
**2017 4-H Project Guide Douglas County, Wisconsin**



# WELCOME TO DOUGLAS COUNTY 4-H!

4-H is the youth development program of the University of Wisconsin-Extension. So, when you participate in 4-H, you are part of the UW System! The four “H’s” represent the four points of the pledge: clearer thinking (head), greater loyalty (heart), larger service (hands), and better living (health).



***Who can join 4-H?*** Regular membership is open to youth in grades 3 through one year following high school graduation (we call this grade 13). Youth in grades K-2 are eligible for the Cloverbuds project. 4-H is open to any youth eligible for 4-H membership regardless of race, color, creed, religion, sex, national origin, disability, ancestry, sexual orientation, pregnancy, marital or parental status.

***This is your guide . . .*** This 4-H Project Guide lists some 70 different projects that you can enjoy. A 4-H project is an area that you want to learn more about during the year. There are projects on just about any topic you would like to study and explore, from art to woodworking, from computers to rabbits, from clothing to small engines.

Besides 4-H projects, you can get involved in 4-H events throughout the year. You can learn more about these activities in our 4-H Family Handbook, available at the Extension Office, and in our monthly newsletter. You will also find many resources on our website <http://douglas.uwex.edu/4h/>and the Wisconsin 4-H website <http://4h.uwex.edu/>

The project pages at <http://4h.uwex.edu/onlinpro/index.cfm> provide descriptions for statewide projects, Internet resources and links of interest, county fair exhibit suggestions, state specialist contacts, and other suggested 4-H resources.

And remember, you’ll learn more than “subject matter” as you complete your projects. You’ll learn many “life” skills that you’ll use every day of your life, such as understanding yourself, communicating better, solving problems, making decisions, and working with others.

Good luck in your project selections. Have a great 4-H year!

# HOW TO SELECT 4-H PROJECTS

***4-H members . . .*** First, make a list of the things you like to do or want to learn more about. Talk over your list with your parents, leaders and friends. They may recognize some special things you are good at that you don’t even realize you do well. Then compare your list with the projects described in this guide. Ask yourself if you have the equipment, money and time to do the projects that sound interesting.

Your club organizational leader will give you an enrollment form when you’re ready to sign up for projects. You’ll notice that each project has a computer code number assigned to it. Mark that code number on the form. 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 or beginning level of a project. Many projects also have grade recommendations. These are only recommendations, but they generally correspond with our fair premium list. If this is your first year in 4-H, concentrate on doing only two or three projects well. Usually you can spend more than one year in a project level because there are enough ideas there to span two or three years.

***4-H leaders . . .*** If you’re a 4-H adult leader, some project code numbers are just for you. For example, if you’re a leader for all of the Shooting Sports project units, use code 60300. If there are several units within a project and you’re a leader for only one, then use the project code number for that unit. For example, if you’re a Shooting Sports leader for just archery, use code 60310. You’ll need to make more than one entry if you’re a leader for more than one project unit. For example, if you’re a Shooting Sports leader for archery *and* air pistol, use codes 60310 *and* 60320.

# FAQ’S ABOUT 4-H PROJECTS

***What’s the Cloverbuds Project?*** 4-H youth in grades K-2 must enroll in this project, designed specifically for their age group. They can also enroll in one other level 1 project if they want, but can only exhibit in the Cloverbuds Department at the fair.

***What’s the Exploring Project?*** This project is recommended for youth who are in grades 3-4, especially if it’s their first year in 4-H.

***What if there’s a project I’m interested in and it’s not in the guide?***

Enroll in “Self-Determined” and you can create your own project!

***What does it mean if I enroll as a Youth Leader (YTH LDR)?*** If you enroll as a youth leader, you should plan to assume a leadership role within the project (e.g., working with new members in the project, assisting an adult volunteer in leading the project, serving on a county committee in the project area, etc.). You can enroll both as a youth leader and a member of the project and this will count as one project (for those concerned with the 10 project maximum).

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# YOUTH LEADERSHIP



## 10200 YOUTH LEADERSHIP LDR

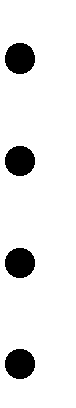
Resources: 07903, *Leadership Mentor Guide for Grades K-5*

07904, *Leadership Mentor Guide for Grades 6-12*

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

## 10201 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*

## 10202 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*

## 10203 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

Resource: 07907, *My Leadership Portfolio for Grades 9-12*

## 10209 YOUTH LEADERSHIP YTH LDR

**YOUNGER MEMBERS**



**10300 EXPLORING LDR**

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

06350, *Exploring Farm Animals Helper’s Guide*

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

## 10301 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

Grades: 3-4

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

## 10309 EXPLORING YTH LDR

**10350 CLOVERBUDS LDR**

Resources: 4H414, *Helping Youth Grow into 4-H*

05560, *4-H Discovery Program for 6-8 Yr. Olds*

Webpage: 4h.uwex.edu/onlinpro/cloverbuds.cfm

## 10351 CLOVERBUDS 1

What you can do in this project:



Learn about your 4-H club or group

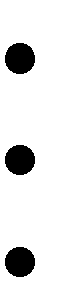
Begin developing different skills, e.g., working with others Discover areas of project interest

Grade: Kindergarten and 1st grade

Resource: Douglas County 4-H Cloverbuds Project Book, K-1

## 10352 CLOVERBUDS 2

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 Douglas County 4-H Cloverbuds Project Book

# 10359 CLOVERBUDS YTH LDR

**SERVICE LEARNING & CITIZENSHIP**

## 10750 SERVICE LEARNING LDR



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

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

## 10751 SERVICE LEARNING 1

What you can do in this project:



Learn to give back to your community Reflect on your experiences

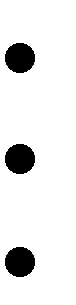
Identify community needs

Plan a service project and execute the idea Grades: 5-8

Resource: 08182, *Agents of Change + CD*

## 10752 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

Resource: 08183, *Raise Your Voice + CD*

## 10759 SERVICE LEARNING YTH LDR

**10800 CITIZENSHIP LDR**

Resource: 08154, *Citizenship Guide’s Handbook*

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

## 10801 CITIZENSHIP

What you can do in this project:



Discover and discuss public issues

Plan a project to change or improve your community Grades: 4-12

Resource: 08153, *Citizenship Adventure Kit*

## 10809 CITIZENSHIP YTH LDR

**SELF-DETERMINED**



**10900 SELF-DETERMINED LDR**

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

## 10901 SELF-DETERMINED

What you can do in this project:



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

Grades: 3-13

Resource: 4H272, *Designing Your Own Project*

# ANIMAL SCIENCES



## 20100 BEEF LDR

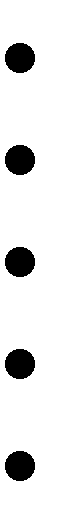
Resources: 08146, *Beef Helper’s Guide*

117R, *Beef Resource Handbook*

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

## 20101 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

Resources: 08143, *Bite Into Beef*

4H450, *Judging Breeding & Market Cattle*

MA, *Meat Animal Project Record*

## 20102 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*

MA, *Meat Animal Project Record*

## 20103 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*

MA, *Meat Animal Project Record*

## 20109 BEEF YTH LDR

**20150 DAIRY GOAT LDR**

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

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

## 20151 DAIRY GOAT 1

What you can do in this project:



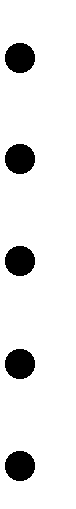
Gain hands-on experiences in the goat project Select, manage, fit and show goats

Learn responsible goat ownership Grades: 3-5

Resource: 08352, *Getting Your Goat*

## 20152 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*

## 20153 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*

## 20159 DAIRY GOAT YTH LDR

**20190 MEAT GOAT LDR**

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

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

## 20191 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*

## 20192 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

Resource: 07910, *Get Growing with Meat Goats*

## 20193 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*

## 20199 MEAT GOAT YTH LDR

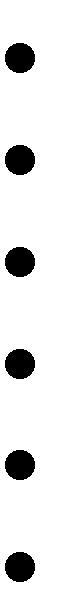
**20200 DAIRY LDR**

Resource: 08164, *Dairy Cow Helper’s Guide*

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

## 20201 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*

CANADA1, *Showmanship…Leading to Win* 4H501, *Dairy Cattle Judging Made Easy – CD* LDR, *Lifetime Dairy Record*

## 20202 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

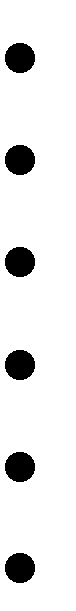
Grades: 6-8

Resources: 08162, *Mooving Ahead*

4H502, *The Rules are Black and White* CANADA2, *Preparing to Lead* MPA, *Managerial Project Agreement*

## 20203 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*

HMR, *WI 4-H Dairy Heifer Mgmt. Record*

## 20209 DAIRY YTH LDR

**20300 HORSE / HORSELESS HORSE LDR**

Resources: 08058, *Horse Helper’s Guide*

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

## 20301 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

Resources: 08053, *Giddy Up & Go*

CO200, *Horses & Horsemanship*

CO201, *Horse Science*

4H180, *Pleasure Riding*

## 20302 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

Resource: 08054, *Head, Heart & Hooves*

## 20303 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*

## 20304 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

Resource: 08056, *Riding the Range*

## 20305 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

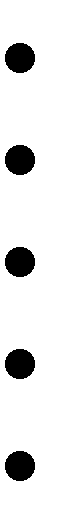
Practice proper show ethics

Grades: 8-12

Resource: 08057, *Jumping to New Heights*

## 20306 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*

4H266, *Horses are Fun- Horseless Horse*

## 20307 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*

## 20308 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*

## 20309 HORSE / HORSELESS HORSE YTH LDR

**20311 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*

## 20370 MODEL HORSES LDR

**20371 MODEL HORSES**

What you can do in this project:

 Learn to collect and show model horses Grades 3-12

Resource: Douglas County 4-H Model Horses Packet

## 20379 MODEL HORSES YTH LDR

**20380 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)

## 20381 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*

4H389, *Horse & Riding Attire*

## 20389 CLOTHES HORSE YTH LDR

**20400 SWINE LDR**

Resources: 08068, *Swine Helper’s Guide*

134R, *Swine Resource Handbook*

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

## 20401 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

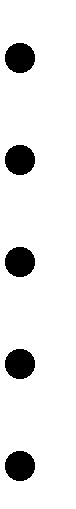
Resources: 08065, *The Incredible Pig*

4H412, *Judging Breeding & Market Swine*

MA, *Meat Animal Project Record*

## 20402 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*

MA, *Meat Animal Project Record*

## 20403 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*

MA, *Meat Animal Project Record*

## 20409 SWINE YTH LDR

**20500 POULTRY LDR**

Resource: 06366, *Poultry Helper’s Guide*

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

## 20501 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*

CIR878, *From Egg to Chick*

MA, *Meat Animal Project Record*

## 20502 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

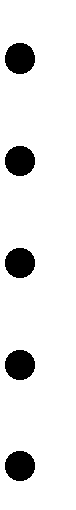
Grades: 6-8

Resources: 06364, *Testing Your Wings*

4H281, *Poultry for Fun & Food* A2880, *Chicken Breeds & Varieties* MA, *Meat Animal Project Record*

## 20503 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*

MA, *Meat Animal Project Record*

## 20504 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

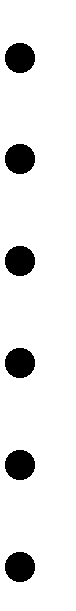
Grades: 3-12

Resources: A3311, *Raising Waterfowl*

MA, *Meat Animal Project Record*

## 20506 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*

MA, *Meat Animal Project Record*

## 20507 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*

## 20509 POULTRY YTH LDR

**20600 SHEEP LDR**

Resources: 06370, *Sheep Helper’s Guide*

194R, *Sheep Resource Handbook*

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

## 20601 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

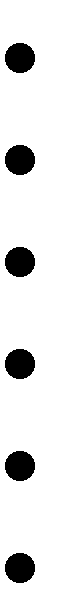
Resources: 06367, *Lambs, Rams and You*

4H421, *Judging Breeding & Market Sheep*

MA, *Meat Animal Project Record*

## 20602 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*

MA, *Meat Animal Project Record*

## 20603 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*

MA, *Meat Animal Project Record*

## 20609 SHEEP YTH LDR

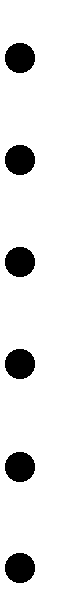
**20650 CATS LDR**

Resource: 08151, *Cat Helper’s Guide*

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

## 20651 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*

## 20652 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!*

## 20653 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*

## 20659 CATS YTH LDR

*2012 4-H Project Guide for Douglas County, Wisconsin - 7 - Find this Project Guide at* [*http://douglas.uwex.edu/4h/*](http://douglas.uwex.edu/4h/)

## 20700 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)

## 20701 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*

4H436, *The Basics of Training Your Dog*

## 20702 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*

4H439, *Dog Obedience – Novice & Beyond*

## 20703 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*

4H437, *A Guide to Showmanship*

## 20709 DOGS YTH LDR

**20750 RABBITS LDR**

Resource: 08083, *Rabbit Helper’s Guide*

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

## 20751 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 Hoppening?*

## 20752 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

Resource: 08081, *Making Tracks*

## 20753 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

Resource: 08082, *All Ears*

## 20759 RABBITS YTH LDR

**20800 VETERINARY SCIENCE LDR**

Resources: 08051, *Veterinary Science Helper’s Guide*

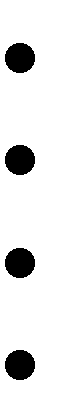
4H192, *Veterinary Science*

4H323, *The Normal Animal - Leader’s Guide*

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

## 20801 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* 4H334, *Adventure Notebook* 4H131, *The Normal Animal*

## 20802 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*

4H048, *Animal Disease*

## 20803 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*

4H133, *Animal Health*

## 20809 VETERINARY SCIENCE YTH LDR

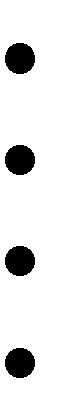
**20900 PETS LDR**

Resource: 06362, *Pet Helper’s Guide*

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

## 20901 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*

## 20902 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*

## 20903 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*

## 20909 PETS YTH LDR

**ARTS & COMMUNICATION**



**30000 PHOTOGRAPHY LDR**

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

## 30001 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*

## 30002 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*

## 30003 PHOTOGRAPHY 3

What you can do in this project:



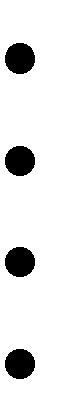
Learn about wide-angle and telephoto lenses Explore the use of light meters and studio lighting Experiment with special effect photos

Take still life photos and portraits Grades: 9-12

Resource: PC3, *Mastering Photography*

## 30005 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*

## 30009 PHOTOGRAPHY YTH LDR

**30100 COMMUNICATIONS LDR**

Resources: 08159, *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)

## 30101 COMMUNICATIONS 1

What you can do in this project:



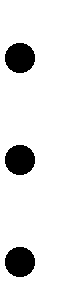
Engage in non-verbal, verbal and written activities Strengthen your personal communication skills Encrypt codes, write songs and give directions

Grades: 3-5

Resource: 08156, *Picking Up the Pieces*

## 30102 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*

## 30103 COMMUNICATIONS 3

What you can do in this project:



Polish your communication skills Explore communication careers Write résumés and interview for a job

Grades: 9-12

Resource: 08158, *The Perfect Fit*

## 30109 COMMUNICATIONS YTH LDR

**30121 SPEAKING**

What you can do in this project:



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

Plan, practice and present an effective demonstration Grades: 3-12

Resources: COMM02, *4-H Public Speakers Handbook*

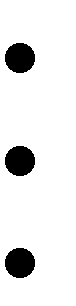
COMM06, *4-H Public Speaking Opportunities*

## 30129 SPEAKING YTH LDR

**30140 CREATIVE WRITING LDR**

**30141 CREATIVE WRITING**

What you can do in this project:



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

Grades: 3-12

Resources: COMM01, *Creative Wordworking*

COMM03, *Crazy About Books Reading Circle*

## 30149 CREATIVE WRITING YTH LDR

**30300 ARTS & CRAFTS LDR**

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

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

## 30301 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 & Principles of Design Card*

4H472, *Palette of Fun Member Sheet & Introduction*

## 30302 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*

08141, *Advanced Visual Arts: Portfolio Pathways*

## 30309 ARTS & CRAFTS YTH LDR

**30310 LEATHERCRAFT LDR**

Resource: CIR006, *Adventures in Leathercraft Leaders Guide*

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

## 30311 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*

## 30319 LEATHERCRAFT YTH LDR

**30330 BLOCK PRINTING LDR**

Resource: CIR008, *Block Printing Leader Guide*

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

## 30331 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 Member Guide*

## 30339 BLOCK PRINTING YTH LDR

**30340 METAL ENAMELING LDR**

Resource: *CIR009, Metal Enameling Leader Guide*

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

## 30341 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 Membes Guide*

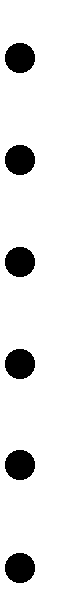
## 30349 METAL ENAMELING YTH LDR

**30350 DRAWING & PAINTING LDR**

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

## 30351 DRAWING & PAINTING

What you can do in this project:



Learn to draw with pencil, chalk, crayon, etc. Learn to blend and shade

Make surface rubbings

Paint with watercolor, oil and acrylics Mix colors

Mat and frame your artwork

Grades: 3-12

Resource: 4H169, *Drawing & Painting*

## 30359 DRAWING & PAINTING YTH LDR

**30400 FOLK ARTS LDR**

Resource: NCR534, *Folk Arts Leader Guide*

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

## 30401 FOLK ARTS

What you can do in this project: Explore traditional folk arts



Learn more from your family and community Learn storytelling

Decorate eggs and make baskets Grades: 5-12

## 30409 FOLK ARTS YTH LDR

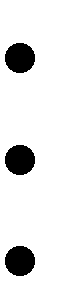
**30600 LATINO CULTURAL ARTS LDR**

Resource: 08180, *QueRico! La Cultura Bilingual Helper’s Guide*

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

## 30601 LATINO CULTURAL ARTS

What you can do in this project:



Understand the Latino culture by exploring traditional art Make Latino instruments, jewelry, weavings, murals, etc. Celebrate Latino holidays, sample foods and tell stories

Grades: K-12

## 30609 LATINO CULTURAL ARTS YTH LDR

**30700 THEATRE ARTS LDR**

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

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

## 30701 THEATRE ARTS 1

What you can do in this project:



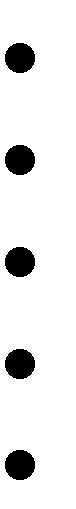
Study acting, sound, movement, voice and speech Learn different ways to play a scene

Try pantomime, clowning and improvisation Grades: 3-5

Resource: 08070, *Play the Role*

## 30702 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!*

## 30703 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*

## 30709 THEATRE ARTS YTH LDR

**30710 CLOWNING LDR**

**30711 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

Resource: 4H265, *Enter the Clowns*

## 30719 CLOWNING YTH LDR

**30760 MUSIC LDR**

Resource: 4H351, *Sing Along Songbook*

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

## 30761 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*

## 30769 MUSIC YTH LDR

**30800 COMPUTERS LDR**

Resource: 08349, *Teens Teaching Tech*

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

## 30801 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 Visit the project’s interactive website

Grades: 3-5

Resource: 08346, *Newbie Know How*

## 30802 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*

## 30803 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*

## 30809 COMPUTERS YTH LDR

**FAMILY, HOME & HEALTH**



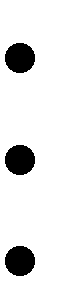
**40000 INTERGENERATIONAL PROGRAMS LDR**

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

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

## 40001 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*

## 40009 INTERGENERATIONAL YTH LDR

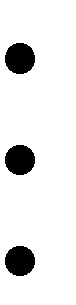
**40100 CHILD DEVELOPMENT LDR**

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

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

## 40101 CHILD DEVELOPMENT 1

What you can do in this project:



Find out how you grow and develop

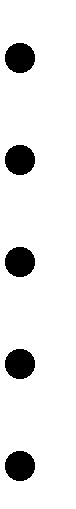
Learn about the development of babies and toddlers Learn how to make toys safe for small children

Grades: 3-4

Resource: 08075, *On My Own*

## 40102 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

Resource: 08076, *Growing With Others*

## 40103 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*

## 40109 CHILD DEVELOPMENT YTH LDR

**40200 CLOTHING LDR**

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

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

## 40201 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

Resources: 08060, *Under Construction*

07198, *Let’s Sew! Beginner’s Sewing Guide*

## 40202 CLOTHING 2

What you can do in this project:



Identify types of fabric constructions

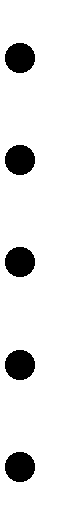
Sew different buttonholes and seam finishes Use pressing tools and thread a serger Research different laundry products

Grades: 6-8

Resource: 08061, *Fashion Forward*

## 40203 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

Resource: 08062, *Refine Design*

## 40209 CLOTHING YTH LDR

**40300 CROCHETING LDR**

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

## 40301 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*

## 40309 CROCHETING YTH LDR

**40400 FOODS & NUTRITION LDR**

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

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

## 40401 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*

## 40402 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*

## 40403 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*

## 40404 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*

## 40409 FOODS & NUTRITION YTH LDR

**40500 FOOD PRESERVATION LDR**

Webpage: [4h.uwex.edu/onlinpro/foodsnutrition.cfm](http://4h.uwex.edu/onlinpro/foodsnutrition.cfm) Resources: UW-Extension Safe Food Preservation Series

## 40501 FOOD 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: B0430, *Canning Fruits Safely*

B1159, *Canning Vegetables Safely*

B2909, *Making Jams, Jellies & Fruit Preserves*

B3278, *Freezing Fruits & Vegetables* B2267, *Homemade Pickles & Relishes* B2605, *Tomatoes Tart & Tasty*

B3345, *Canning Meat, Wild Game, Poultry & Fish*

B3570, *Canning Salsa Safely*

## 40509 FOOD PRESERVATION YTH LDR

**40650 PERSONAL FINANCE LDR**

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

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

## 40651 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*

## 40652 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*

## 40659 PERSONAL FINANCE YTH LDR

**40660 ENTREPRENEURSHIP LDR**

Resource: 08036, *Entrepreneurship Helper’s Guide*

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

## 40661 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

Resource: 08035, *Entrepreneurship: Be the E*

## 40669 ENTREPRENEURSHIP YTH LDR

**40670 WORKFORCE READINESS LDR**

Resource: 08192, *Get in the Act! Take 1 Helper’s Guide*

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

## 40671 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

Resource: 08191, *Get in the Act! Take 1 (with CD)*

## 40679 WORKFORCE READINESS YTH LDR

**40700 HOME ENVIRONMENT LDR**

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

## 40701 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*

## 40702 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*

## 40703 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

Resource: 4H427, *Where I Live*

## 40704 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

Resource: 4H465, *In My Home*

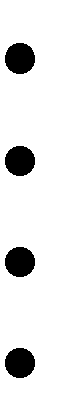
## 40709 HOME ENVIRONMENT YTH LDR

**40800 KNITTING LDR**

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

## 40801 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

Resource: CC1402, *Knitting Made Easy*

## 40809 KNITTING YTH LDR

**40850 CONSUMER SAVVY LDR**

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

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

## 40851 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

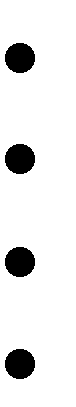
Start a savings account

Grades: 3-5

Resource: 08030, *The Consumer in Me*

## 40852 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*

## 40853 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 Roadmap*

## 40859 CONSUMER SAVVY YTH LDR

**40900 HEALTH LDR**

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

## 40901 HEALTH 1

What you can do in this project:



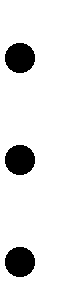
Practice first-aid skills to treat basic injuries Learn how to respond to someone who is choking Assemble a first-aid kit

Grades: 3-5

Resource: 08174, *First Aid in Action*

## 40902 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*

## 40903 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*

## 40909 HEALTH YTH LDR

**MECHANICAL SCIENCES**



**50200 BICYCLING LDR**

Resources: 08336, *Bicycle Helper’s Guide*

08399, *Bicycle Fix It! (DVD)*

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

## 50202 BICYCLING

What you can do in this project:

Choose a bike that’s right for you Practice bike maintenance

Learn road rules

Grades: 4-6

Resource: 08335, *Wheels in Motion*

## 50209 BICYCLING YTH LDR

**50300 ELECTRICITY LDR**

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

Webpage: 4h.uwex.edu/onlinpro/electricity.cfm

## 50301 ELE[CTRICITY 1](http://4h.uwex.edu/onlinpro/electricity.cfm)

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

Resource: 06848, *Magic of Electricity*

## 50302 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*

## 50303 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

Resource: 06850, *Wired for Power*

## 50304 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

Grades: 10-12

Resource: 06851, *Entering Electronics*

## 50309 ELECTRICITY YTH LDR

**50500 SMALL ENGINES LDR**

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

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

## 50501 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!*

## 50502 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

Resource: 08187, *Warm It Up!*

## 50503 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!*

## 50509 SMALL ENGINES YTH LDR

**50600 SCALE MODELS LDR**

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

## 50601 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*

## 50609 SCALE MODELS YTH LDR

**50700 TRACTORS LDR**

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

## 50701 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)

Resource: 4H961, *Starting Up: Getting to Know Your Tractor*

## 50702 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*

## 50703 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*

## 50704 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*

## 50709 TRACTORS YTH LDR

**50800 WOODWORKING LDR**

Resource: 06879, *Woodworking Helper’s Guide*

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

## 50801 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

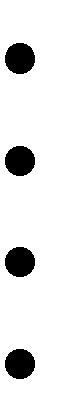
Identify types of nails and wood Sand and paint a piece of wood

Grades: 2-4

Resource: 06875, *Measuring Up*

## 50802 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

Resource: 06876, *Making the Cut*

## 50803 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

Resource: 06877, *Nailing It Together*

## 50804 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*

## 50809 WOODWORKING YTH LDR

**NATURAL RESOURCES & ENVIRONMENTAL EDUCATION**



**60000 EXPLORING YOUR ENVIRONMENT LDR**

Resources: 07707, *Exploring Your Environment Helper’s Guide*

PUB-CE-456, *Education Connection*

PUBL-ER-001, *WI Endangered & Threatened Species*

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

## 60001 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

Resource: 07704, *Eco-Wonders*

## 60002 EXPLORING YOUR ENVIRONMENT 2

What you can do in this project:



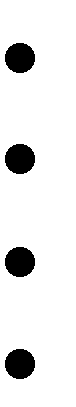
Explore wildlife habitats and tracking Learn about groundwater

Research pollination and how it works Grades: 8-10

Resource: 07705, *Eco-Adventures*

## 60003 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*

## 60005 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*

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

## 60009 EXPLORING YOUR ENVIRONMENT YTH LDR

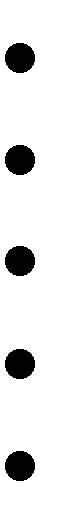
**60050 FORESTRY LDR**

Resource: 08041, *Forestry Helper’s Guide*

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

## 60051 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*

## 60052 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

Resource: 08039, *Reach for the Canopy*

## 60053 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*

## 60059 FORESTRY YTH LDR

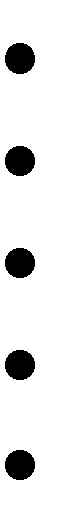
**60100 ADVENTURES LDR**

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

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

## 60101 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*

## 60102 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, *Winter Travel*

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

## 60103 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, *Canoeing*

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

## 60104 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, *Bicycling*

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

## 60109 ADVENTURES YTH LDR

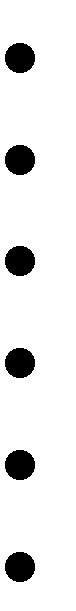
**60120 BACKPACKING & HIKING LDR**

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

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

## 60121 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

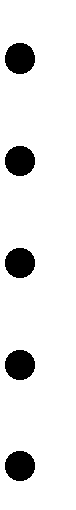
Select appropriate clothing Prepare a first-aid kit Learn to use a compass

Prepare for dangerous weather Grades: 3-5

Resource: 08043, *Hiking Trails*

## 60122 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*

## 60123 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*

## 60129 BACKPACKING & HIKING YTH LDR

**60200 ENTOMOLOGY (INSECTS) LDR**

Resource: 06856, *Entomology Group Helper’s Guide 08393, Project Butterfly Wings Facilitator Guide*

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

## 60201 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

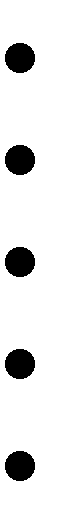
Explore how insects communicate and move Grades: 3-5

Resource: 06853, *Creepy Crawlies*

*08392, Project Butterfly Wings Youth Guide*

## 60202 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

Resource: 06854, *What’s Bugging You?*

*08392, Project Butterfly Wings Youth Guide*

## 60203 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

Resource: 06855, *Dragons, Houses, & Other Flies*

## 60209 ENTOMOLOGY YTH LDR

**60300 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)

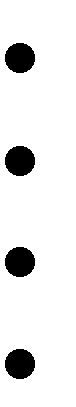
## 60309 SHOOTING SPORTS YTH LDR

**60310 ARCHERY LDR**

Resource: 4H429, *Basic Archery*

## 60311 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

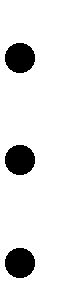
## 60319 ARCHERY YTH LDR

**60320 AIR PISTOL LDR**

Resource: 4H431, *Basic Air Pistol*

## 60321 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

## 60329 AIR PISTOL YTH LDR

**60330 RIFLE LDR**

Resource: 4H432, *Basic Rifle*

## 60331 RIFLE

What you can do in this project:



Introduction to air rifle and .22 rifle through dry firing Learn to sight your rifle and score targets

Learn various shooting positions Learn safety policies and procedures

Grades: 3-12 for air rifle

Ages: 12 years old and above for .22 rifle

## 60339 RIFLE YTH LDR

**60340 HUNTING LDR**

Resource: 4H434A, *Basic Hunting*

## 60341 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

## 60349 HUNTING YTH LDR

**60350 SHOTGUN LDR**

Resource: 4H433, *Basic Shotgun*

## 60351 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: 12 years old and above

## 60359 SHOTGUN YTH LDR

**60360 MUZZLELOADING LDR**

Resource: 4H430, *Basic Muzzleloading*

## 60361 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: 12 years old and above

## 60369 MUZZLELOADING YTH LDR

**60450 RECYCLING LDR**

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

## 60451 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*

## 60459 RECYCLING YTH LDR

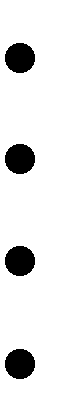
**60470 WATER LDR**

Resource: 4H850, *Give Water A Hand Leader Guide*

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

## 60471 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

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

## 60479 WATER YTH LDR

**60800 FISHING LDR**

Resource: 07601, Fishing Adventures- Helper’s Guide Webpage: [www.uwex.edu/ces/4h/onlinpro/fishing.cfm](http://www.uwex.edu/ces/4h/onlinpro/fishing.cfm)

## 60801 FISHING 1

What you can do in this project: Identify types of tackle Organize a tackle box



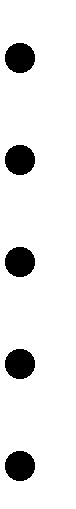
Identify different types of bait and fish in your area Learn to take proper care of your catch

Grades: 3-5

Resource: 07598, *Take the Bait*

## 60802 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*

## 60803 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

Resource: 07600, *Cast into the Future*

## 60809 FISHING YTH LDR

**PLANT & SOIL SCIENCES**



**70000 CROPS LDR**

**70001 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)

## 70002 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*

4H440, *Marketing Your 4-H Crops*

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

RS1, *Record Sheet – Crops Management*

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

## 70003 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)

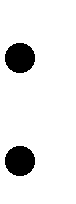
## 70009 CROPS YTH LDR

**70100 FRUITS LDR**

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

## 70101 FRUITS

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

Resources: A1597, *Growing Strawberries in Wisconsin* A1610, *Growing Raspberries in Wisconsin* A1960, *Growing Currants, Gooseberries, &*

*Elderberries in Wisconsin*

## 70109 FRUITS YTH LDR

**70200 VEGETABLES LDR**

Resource: 07166, *Gardening Helper’s Guide*

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

## 70201 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

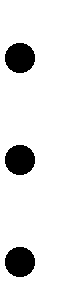
Prepare a vegetable exhibit for show Grades: 3-5

Resources: 07162, *Gardening: See Them Sprout* 4H395, *Organically Grown – Handbook* 4H409, *Nature’s Herbs*

A3306, *Exhibiting & Judging Vegetables*

## 70202 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

Resource: 07163, *Gardening: Let’s Get Growing*

## 70203 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

Resource: 07164, *Gardening: Take Your Pick*

## 70204 VEGETABLES 4

What you can do in this project:

 Growing vegetables for profits Resource: 07165, *Gardening: Growing Profits*

## 70209 VEGETABLES YTH LDR

**70300 HOUSE PLANTS LDR**

Resource: 07166, *Gardening Helper’s Guide*

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

## 70301 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

Resources: 07162, *Gardening: See Them Sprout*

4H328, *Propagating & Growing House Plants*

## 70302 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

Resource: 07163, *Gardening: Let’s Get Growing*

## 70303 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

Resource: 07164, *Gardening: Take Your Pick*

## 70304 HOUSE PLANTS 4

What you can do in this project:

 Growing house plants for profits Resource: 07165, *Gardening: Growing Profits*

## 70309 HOUSE PLANTS YTH LDR

**70350 PLANT CRAFTS LDR**

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

## 70351 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*

4H453, *Plant Crafts Supplement*

## 70359 PLANT CRAFTS YTH LDR

**70400 FLOWERS LDR**

Resource: 07166, *Gardening Helper’s Guide*

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

## 70401 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

Resources: 07162, *Gardening: See Them Sprout*

4H1301A, *Forcing Spring Flowering Bulbs*

A2935, *Evaluating & Judging Flowers & Indoor Plants*

## 70402 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: 07163, *Gardening: Let’s Get Growing*

## 70403 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: 07164, *Gardening: Take Your Pick*

## 70404 FLOWERS 4

What you can do in this project:

 Growing flowers for profits

Resource: 07165, *Gardening: Growing Profits*

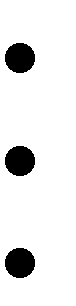
## 70409 FLOWERS YTH LDR

**70500 HOME GROUNDS LDR**

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

## 70501 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

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

## 70502 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*

A1730, *Evergreens – Planting & Care*

## 70503 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*

## 70509 HOME GROUNDS YTH LDR

**STEM (SCIENCE, TECHNOLOGY, ENGINEERING & MATH)**



**80100 STEM LDR**

Resource: 08384, The Power of the Wind Facilitator Guide Webpage: <http://www.uwex.edu/ces/4h/set/index.cfm>

# 80102 STEM WIND ENERGY

Resource: 08383, The Power of the Wind Youth Guide

# 80109 STEM YTH LDR

Resource: 08383, The Power of the Wind Facilitator Guide

## 80110 AEROSPACE LDR

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

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

## 80111 AEROSPACE 1

What you can do in this project:



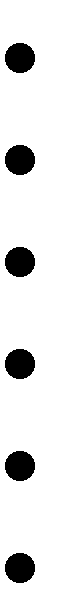
Build an introductory level rocket Compare birds and airplanes Make a space helmet

Grades: K-2

Resource: 06842, *Pre-Flight*

## 80112 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*

## 80113 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*

## 80114 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*

## 80119 AEROSPACE YTH LDR

**80120 GEOSPATIAL LDR**

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

## 80121 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

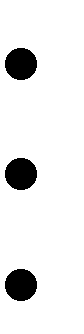
Grades: 4-12

Resource: CD8358, *Exploring Spaces, Going Places CD*

(“Getting Out” section)

## 80122 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)

## 80123 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)

## 80129 GEOSPATIAL YTH LDR

**80130 ROBOTICS LDR**

Resources: 08434, *Robotics Platforms Track* DVD Webpage: [4h.uwex.edu/onlinpro/robotics.cfm](http://4h.uwex.edu/onlinpro/robotics.cfm)

## 80131 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

Grades: 3-5

Resource: 08431, *Junk Drawer Robotics Track Level 1: Give Robots a Hand*

*08435, 4-H Robotics Youth Notebook*

08430, *Virtual Robotics Track* DVD

## 80132 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 Grades: 6-8

Resource: 08432, *Junk Drawer Robotics Track Level 2: Robots on the Move*

*08435, 4-H Robotics Youth Notebook*

08430, *Virtual Robotics Track* DVD

## 80133 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 Grades: 9-12

Resource: 08433, *Junk Drawer Robotics Track Level 3: Mechatronics*

*08435, 4-H Robotics Youth Notebook*

08430, *Virtual Robotics Track* DVD

## 80139 ROBOTICS YTH LDR

**INTERNATIONAL PROGRAMS**



**90150 INTERNATIONAL LDR**

Resource: 4H812, *And My World*

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

## 90151 INTERNATIONAL

What you can do in this project:



Explore the world around you through maps Track weather in various parts of the world Make your family tree by talking with relatives Explore where your ancestors came from

Grades: 3-12

Resource: 4H812, *And My World*

## 90159 INTERNATIONAL YTH LDR