



# Wisconsin 4-H Project Guide (with Supplements)

*This is your guide . . .* 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.

So how do you know what projects are available to you? Your club organizational leader or enrollment coordinator can tell you what projects and resources are offered in your county.

Don't forget to check out the project pages on the Wisconsin 4-H Web Site at <http://fyi.uwex.edu/wi4hprojects>. On these pages, you'll find 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 and any other project list you may receive from your county. Ask yourself if you have the equipment, money and time to do the projects that sound interesting.

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.

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

**4-H leaders . . .** If there are several units within a project and you're a leader for only one, then choose that unit. For example, if you're a Shooting Sports leader for just archery, choose Archery. 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, choose both.



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## YOUTH LEADERSHIP

<http://fyi.uwex.edu/wi4hprojects/community-involvement/youth-leadership/>

### **AMBASSADORS**

#### **AMBASSADORS LDR**

#### **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*

#### **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*

#### **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*

#### **YOUTH LEADERSHIP LDR**

Resources: 07903, *Leadership Mentor Guide for Grades K-5*  
07904, *Leadership Mentor Guide for Grades 6-12*

#### **YOUTH LEADERSHIP YTH LDR**



## YOUNGER MEMBERS

<http://fyi.uwex.edu/wi4hprojects/younger-members/>

### **AFTERSCHOOL PROJECTS**

#### **AFTERSCHOOL PROJECTS LDR**

#### **AFTERSCHOOL PROJECTS YTH LDR**

#### **CLOVERBUDS 1**

What you can do in this project:

- Learn about your 4-H club or group

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

Grade: Kindergarten

Resources: 05561, *Cloverbuds – Activity Sheets*  
05562, *Cloverbuds – Program Record*  
05563, *Cloverbuds – Participation Summary*

#### **CLOVERBUDS 2**

What you can do in this project:

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

Grade: 1

Resource: See Cloverbuds 1

#### **CLOVERBUDS 3**

What you can do in this project:

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

Grade: 2

Resource: See Cloverbuds 1

#### **CLOVERBUDS LDR**

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

#### **CLOVERBUDS YTH LDR**

#### **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*

#### **10300 EXPLORING LDR**

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



## SERVICE LEARNING & CITIZENSHIP

<http://fyi.uwex.edu/wi4hprojects/community-involvement/>

#### **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*

#### **CITIZENSHIP LDR**

Resource: 08154, *Citizenship Guide's Handbook*

#### **CITIZENSHIP YTH LDR**

#### **HISTORY & HERITAGE**

## HISTORY & HERITAGE LDR

## HISTORY & HERITAGE YTH LDR

## 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: 3-8

## LATINO CULTURAL ARTS LDR

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

## LATINO CULTURAL ARTS YTH LDR

## 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*

## 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*

## SERVICE LEARNING LDR

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

## SERVICE LEARNING YTH LDR

## SPECIAL EMPHASIS

## SPECIAL EMPHASIS LDR

## SPECIAL EMPHASIS YTH LDR



## SELF-DETERMINED

### SELF-DETERMINED

What you can do in this project:

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

Grades: 3-13

Resource: 4H272, *Designing Your Own Project*

### SELF-DETERMINED LDR

## SELF-DETERMINED YTH LDR

## SELF-DETERMINED ANIMAL SCIENCES

## SELF-DETERMINED ARTS & COMMUNICATION

## SELF-DETERMINED ENVIRONMENTAL EDUCATION

## SELF-DETERMINED FAMILY, HOME, & HEALTH

## SELF-DETERMINED MECHANICAL SCIENCES

## SELF-DETERMINED PLANT & SOIL SCIENCES



## ANIMAL SCIENCES

<http://fyi.uwex.edu/wi4hprojects/animal-sciences/>

### 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*

### 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*

### 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*

### BEEF 4

## **BEEF FEEDER**

## **BEEF MAP**

## **BEEF LDR**

Resources: 08146, *Beef Helper's Guide*  
117R, *Beef Resource Handbook*

## **BEEF YTH LDR**

## **CAGE BIRDS**

## **CAGE BIRDS LDR**

## **CAGE BIRDS YTH LDR**

## **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*

## **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!*

## **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*

## **CATS 4**

## **CATS LDR**

Resource: 08151, *Cat Helper's Guide*

## **CATS YTH LDR**

## **CAVIES**

## **CAVIES LDR**

## **CAVIES YTH LDR**

## **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*  
LEADER, *Lifetime Dairy Record*

## **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*  
CANADA2, *Preparing to Lead*  
MPA, *Managerial Project Agreement*

## **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*

## **DAIRY 4**

## **DAIRY LDR**

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

## **DAIRY YTH LDR**

## **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*

## **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*

### **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*

### **DOGS 4**

### **DOGS LDR**

Resources: 08169, *Dog Helper's Guide*  
4H458, *4-H Dog Judging Guidelines*

### **DOGS YTH LDR**

### **DOGS OBEDIENCE TRAINING**

### **DOGS OBEDIENCE TRAINING LDR**

### **DOGS OBEDIENCE TRAINING YTH LDR**

### **EXOTIC ANIMALS**

### **EXOTIC ANIMALS LDR**

### **EXOTIC ANIMALS YTH LDR**

### **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*

### **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*

### **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*

### **DAIRY GOAT 4**

### **DAIRY GOAT LDR**

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

### **DAIRY GOAT YTH LDR**

### **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*

### **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*

### **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*

### **MEAT GOAT LDR**

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

### **MEAT GOAT YTH LDR**

### **PYGMY GOAT**

### **PYGMY GOAT LDR**

### **PYGMY GOAT YTH LDR**

### **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*

## **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*

## **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*

## **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*

## **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*

## **HORSE/ HORSELESS HORSE LDR**

Resources: 08058, *Horse Helper's Guide*

## **HORSE/ HORSELESS HORSE YTH LDR**

## **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*

## **CLOTHES HORSE LDR**

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

## **CLOTHES HORSE YTH LDR**

## **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*

## **HORSE EQUITATION**

### **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*

### **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*

### **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*

## **HORSE MINIATURE HORSE**

## **MODEL HORSES**

### **MODEL HORSES LDR**

### **MODEL HORSES YTH LDR**

### **LLAMAS 1**

### **LLAMAS 2**

### **LLAMAS 3**

### **LLAMAS LDR**

### **LLAMAS YTH LDR**

## **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*

## **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*

## **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*

## **PETS 4**

### **PETS LDR**

Resource: 06362, *Pet Helper's Guide*

### **PETS YTH LDR**

### **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*

### **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*

### **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*

## **POULTRY LDR**

Resource: 06366, *Poultry Helper's Guide*

## **POULTRY YTH LDR**

## **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*  
MA, *Meat Animal Project Record*

## **POULTRY EXOTIC BIRDS (Ostrich, Emu)**

## **POULTRY GAME BIRDS (Quail, Pheasant)**

## **POULTRY MARKET**

## **POULTRY PIGEONS**

What you can do in this project:

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

Grades: 3-12

Resource: 4H135, *Pigeons*

## **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*  
MA, *Meat Animal Project Record*

## **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*  
MA, *Meat Animal Project Record*

## **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?*



## **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*

## **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*

## **RABBITS 4**

### **RABBITS LDR**

Resource: 08083, *Rabbit Helper's Guide*

### **RABBITS YTH LDR**

### **RABBIT HOPPING**

### **RABBIT HOPPING LDR**

### **RABBIT HOPPING YTH LDR**

## **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*

## **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*

## **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*

## **SHEEP 4**

### **SHEEP MAP**

### **SHEEP LDR**

Resources: 06370, *Sheep Helper's Guide*  
194R, *Sheep Resource Handbook*

### **SHEEP YTH LDR**

### **SMALL ANIMALS**

### **SMALL ANIMALS LDR**

### **SMALL ANIMALS YTH LDR**

## **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*

## **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*

## **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*

## **SWINE 4**

### **SWINE MAP**

## SWINE LDR

Resources: 08068, *Swine Helper's Guide*  
134R, *Swine Resource Handbook*

## SWINE YTH LDR

## TROPICAL FISH

## TROPICAL FISH LDR

## TROPICAL FISH YTH LDR

## 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*

## 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*

## 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*

## VETERINARY SCIENCE LDR

Resources: 08051, *Veterinary Science Helper's Guide*  
4H192, *Veterinary Science*  
4H323, *The Normal Animal - Leader's Guide*

## VETERINARY SCIENCE YTH LDR



## COMMUNICATION ARTS

<http://fyi.uwex.edu/wi4hprojects/arts-communication/>

## BOOKS ON THE MOVE

## BOOKS ON THE MOVE LDR

## BOOKS ON THE MOVE YTH LDR

## COLLECTIONS - COIN

## COLLECTIONS LDR

## COLLECTIONS YTH LDR

## 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*

## 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*

## 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*

## 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*

## COMMUNICATIONS YTH LDR

## COMPUTER GRAPHIC DESIGN

## 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*

## CREATIVE WRITING LDR

## CREATIVE WRITING YTH LDR

## DEMONSTRATIONS

## DEMONSTRATIONS LDR

## DEMONSTRATIONS YTH LDR

## **SIGN LANGUAGE**

### **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*

### **SPEAKING LDR**

### **SPEAKING YTH LDR**



## **PERFORMING ARTS**

<http://fyi.uwex.edu/wi4hprojects/arts-communication/theatre-arts/>

### **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*

### **CLOWNING LDR**

### **CLOWNING YTH LDR**

### **DANCE**

### **DANCE LDR**

### **DANCE YTH LDR**

### **JUGGLING**

### **JUGGLING LDR**

### **JUGGLING YTH LDR**

### **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*

### **MUSIC LDR**

### **MUSIC YTH LDR**

## **PUPPETRY**

### **PUPPETRY LDR**

### **PUPPETRY YTH LDR**

### **THEATRE ARTS 1**

What you can do in this project:

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

Grades: 3-5

### **THEATRE ARTS 2**

What you can do in this project:

- Become a puppeteer
- Investigate the history of puppets
- Explore types of puppets and puppet characters
- Use puppets in community service work
- Plan and present a puppet show

Grades: 6-8

Resource: 08071, *Become a Puppeteer!*

### **THEATRE ARTS 3**

What you can do in this project:

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

Grades: 9-12

### **THEATRE ARTS 4**

### **THEATRE ARTS LDR**

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

### **THEATRE ARTS YTH LDR**



## **VISUAL ARTS**

<http://fyi.uwex.edu/wi4hprojects/arts-communication/>

### **ART 1**

What you can do in this project

- Learn art through cutting, pasting and drawing
- Explore sculpting and constructing with fibers
- Paint and print using different materials

Grades: 3-6

### **ART 2**

What you can do in this project:

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

Grades: 7-12

Resources: 08140, *Advanced Visual Arts: Sketchbook Crossroads*  
08141, *Advanced Visual Arts: Portfolio Pathways*

## **ART 3**

### **ART LDR**

### **ART YTH LDR**

### **ART - CELEBRATE ART**

### **ART IN YOUR FUTURE**

### **BASKETRY**

### **BASKETRY LDR**

### **BASKETRY YTH LDR**

### **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*

### **BLOCK PRINTING LDR**

Resource: CIR008, *Block Printing Leader Guide*

### **BLOCK PRINTING YTH LDR**

### **CERAMICS**

### **CERAMICS LDR**

### **CERAMICS YTH LDR**

### **COLLAGES**

### **CREATIVE/CROSS STITCHERY**

### **CREATIVE/CROSS STITCHERY LDR**

### **CREATIVE/CROSS STITCHERY YTH LDR**

### **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*

### **DRAWING & PAINTING LDR**

### **DRAWING & PAINTING YTH LDR**

## **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

### **FOLK ARTS LDR**

Resource: NCR534, *Folk Arts Leader Guide*

### **FOLK ARTS YTH LDR**

### **BEADWORK**

### **CALLIGRAPHY**

### **CANDLE MAKING**

### **DECORATIVE BOXES**

### **DECORATIVE WREATHS**

### **DECOUPAGE**

### **FIBER ARTS**

### **FLOWER CRAFTS**

### **HANDMADE DOLLS**

### **LIQUID EMBROIDERY**

### **MOSAICS**

### **ORNAMENTS**

### **PAPER ART**

### **PLASTERCRAFT**

### **PRIMITIVE ART**

### **PRINT MAKING**

### **ROCK ART**

### **SCULPTY CLAY**

### **SOAP CARVING**

### **SOAP MAKING**

### **STRING/WIRE ART**

### **STUFFED ANIMALS**

### **TIE DYING**

### **WEARABLE ART**

### **WOOD ART**

### **GLASSWORK**

### **GLASSWORK LDR**

### **GLASSWORK YTH LDR**

### **JEWELRY MAKING**

### **JEWELRY MAKING LDR**

### **JEWELRY MAKING YTH LDR**

### **LEATHERCRAFT**

What you can do in this project:

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

Grades: 3-12

## **LEATHERCRAFT LDR**

## **LEATHERCRAFT YTH LDR MACRAMÉ**

## **MACRAMÉ LDR**

## **MACRAMÉ YTH LDR**

## **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*

## **METAL ENAMELING LDR**

Resource: CIR009, *Metal Enameling Leader Guide*

## **METAL ENAMELING YTH LDR**

## **NEEDLEPOINT**

## **NEEDLEPOINT LDR**

## **NEEDLEPOINT YTH LDR**

## **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*

## **PHOTOGRAPHY 2**

What you can do in this project:

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

Grades: 6-8

Resource: PC2, *Controlling the Image*

## **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*

## **PHOTOGRAPHY LDR**

## **PHOTOGRAPHY YTH LDR**

## **POSTERS**

Grades: 3-12

## **POSTERS LDR**

## **POSTERS YTH LDR**

## **FUZZY POSTERS**

## **POTTERY**

## **POTTERY LDR**

## **POTTERY YTH LDR**

## **RUBBER STAMPING**

## **RUBBER STAMPING LDR**

## **RUBBER STAMPING YTH LDR**

## **RUG HOOKING**

## **RUG HOOKING LDR**

## **RUG HOOKING YTH LDR**

## **SCRAPBOOKING**

## **STENCIL PAINTING**

## **STENCIL PAINTING LDR**

## **STENCIL PAINTING YTH LDR**

## **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*

## **WEAVING**

## **WEAVING LDR**

## **WEAVING YTH LDR**

## **WOOD BURNING**

## **WOOD BURNING LDR**

## **WOOD BURNING YTH LDR**



## **FAMILY, HOME & HEALTH**

<http://fyi.uwex.edu/wi4hprojects/family-home-health/>

### **BOWLING**

#### **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*

#### **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*

#### **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*

#### **CHILD DEVELOPMENT LDR**

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

#### **CHILD DEVELOPMENT YTH LDR**

#### **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*

#### **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*

#### **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*

#### **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*

#### **HOME ENVIRONMENT 5**

#### **HOME ENVIRONMENT LDR**

#### **HOME ENVIRONMENT YTH LDR**

### **FUN & FITNESS**

#### **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*

#### **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*

#### **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*

#### **HEALTH 4 (Risk)**

#### **HEALTH 4 (Abstain)**

#### **HEALTH 5**

#### **HEALTH LDR**

#### **HEALTH YTH LDR**

## **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*

## **INTERGENERATIONAL PROGRAMS LDR**

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

## **INTERGENERATIONAL PROGRAMS YTH LDR**

## **SOFTBALL**

## **SPORTS LDR**

## **SPORTS YTH LDR**



## **CONSUMER EDUCATION**

<http://fyi.uwex.edu/wi4hprojects/family-home-health/>

### **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*

### **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*

### **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*

### **CONSUMER SAVVY LDR**

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

### **CONSUMER SAVVY YTH LDR**

## **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*

## **ENTREPRENEURSHIP LDR**

Resource: 08036, *Entrepreneurship Helper's Guide*

## **ENTREPRENEURSHIP YTH LDR**

### **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*

### **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*

### **PERSONAL FINANCE LDR**

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

### **PERSONAL FINANCE YTH LDR**

### **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)*

### **WORKFORCE READINESS LDR**

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

### **WORKFORCE READINESS YTH LDR**



## **FOODS AND NUTRITION**

<http://fyi.uwex.edu/wi4hprojects/family-home-health/foods-nutrition/>

## **BREADS**

## **BREADS LDR**

## **BREADS YTH LDR**

## CAKE DECORATING 1

## CAKE DECORATING 2

## CAKE DECORATING 3

## CAKE DECORATING LDR

## CAKE DECORATING YTH LDR

## CANDY MAKING

## CANDY MAKING LDR

## CANDY MAKING YTH LDR

## FOOD PRESERVATION 1

What you can do in this project:

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

Grades: 6-12

Resources: B0430, *Canning Fruits Safely*  
B1159, *Canning Vegetables Safely*  
B2909, *Making Jams, Jellies & Fruit Preserves*  
B3278, *Freezing Fruits & Vegetables*

## FOOD PRESERVATION 2

What can I do in this project:

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

Grades: 6-12

Resources: B2267, *Homemade Pickles & Relishes*  
B2605, *Tomatoes Tart & Tasty*  
B3345, *Canning Meat, Wild Game, Poultry & Fish*  
B3570, *Canning Salsa Safely*

## FOOD PRESERVATION 3

## FOOD PRESERVATION LDR

## FOOD PRESERVATION YTH LDR

## 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*

## 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*

## 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*

## 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*

## FOODS & NUTRITION 5

## FOODS & NUTRITION LDR

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

## FOODS & NUTRITION YTH LDR

## MICROWAVE 1

## MICROWAVE 2

## MICROWAVE 3

## MICROWAVE 4

## MICROWAVE LDR

## MICROWAVE YTH LDR



## CLOTHING AND TEXTILES

<http://fyi.uwex.edu/wi4hprojects/family-home-health/>

## 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*

## 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*



## **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*

## **CLOTHING LDR**

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

## **CLOTHING YTH LDR**

## **CROCHETING 1**

What you can do in this project:

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

Grades: 3-12

Resource: CC1403, *Crochet Made Easy*

## **CROCHETING 2**

## **CROCHETING 3**

## **CROCHETING LDR**

## **CROCHETING YTH LDR**

## **KNITTING 1**

What you can do in this project:

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

Grades: 3-12

Resource: CC1402, *Knitting Made Easy*

## **KNITTING 2**

## **KNITTING 3**

## **KNITTING LDR**

## **KNITTING YTH LDR**

## **QUILTING**

## **QUILTING LDR**

## **QUILTING YTH LDR**

## **WOOL SPINNING**



## **MECHANICAL SCIENCES**

<http://fyi.uwex.edu/wi4hprojects/mechanical-sciences/>

## **AUTOMOTIVE 1**

## **AUTOMOTIVE 2**

## **AUTOMOTIVE 3**

## **AUTOMOTIVE LDR**

## **AUTOMOTIVE YTH LDR**

## **BICYCLES – ENG AND TECH 1**

What you can do in this project:

- Learn the essentials for getting started safely
- Explore the basics toward lifelong cycling
- Learn safety, road rules and planning for a pleasant ride

Grades: 3-4

Resource: 08334, *Bicycling for Fun*

## **BICYCLING – ENG AND TECH 2**

What you can do in this project:

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

Grades: 4-6

Resource: 08335, *Wheels in Motion*

## **BICYCLING – ENG AND TECH 3**

## **BICYCLING LDR**

Resources: 08336, *Bicycle Helper's Guide*  
08399, *Bicycle Fix It! (DVD)*

## **BICYCLING YTH LDR**

## **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*

## **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*

## **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*

## **COMPUTERS LDR**

Resource: 08349, *Teens Teaching Tech*

## **COMPUTERS YTH LDR**

## **ELECTRICITY 1**

What you can do in this project:

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

Grades: 4-5

Resource: 06848, *Magic of Electricity*

## **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*

## **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*

## **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*

## **ELECTRICITY LDR**

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

## **ELECTRICITY YTH LDR**

## **FLYING**

## **HANDYMAN**

## **HANDYMAN LDR**

## **HANDYMAN YTH LDR**

## **LEGOS**

## **LEGOS LDR**

## **LEGOS YTH LDR**

## **MAINTENANCE & REPAIR**

## **MAINTENANCE & REPAIR LDR**

## **MAINTENANCE & REPAIR YTH LDR**

## **MECHANICAL SCIENCES**

## **MODEL CARS**

## **MODEL RAILROAD**

## **MODEL ROCKETRY**

## **MODEL ROCKETRY LDR**

## **MODEL ROCKETRY YTH LDR**

## **OFF-HIGHWAY VEHICLES**

## **OFF-HIGHWAY VEHICLES LDR**

## **OFF-HIGHWAY VEHICLES YTH LDR**

## **RADIO-CONTROLLED PLANE**

## **REMOTE-CONTROLLED CARS**

## **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*

## **SCALE MODELS LDR**

## **SCALE MODELS YTH LDR**

## **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!*

## **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!*

## **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!*

## **SMALL ENGINES LDR**

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

## **SMALL ENGINES YTH LDR**

## **SNOWMOBILING**

### **SNOWMOBILING LDR**

### **SNOWMOBILING YTH LDR**

## **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*

## **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*

## **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*

## **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*

## **TRACTORS LDR**

### **TRACTORS YTH LDR**

### **TRACTOR CERTIFICATION**

## **WELDING**

### **WELDING LDR**

### **WELDING YTH LDR**

## **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: 3-4

Resource: 06875, *Measuring Up*

## **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*

## **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*

## **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*

## **WOODWORKING 5**

### **WOODWORKING LDR**

Resource: 06879, *Woodworking Helper's Guide*

### **WOODWORKING YTH LDR**



## **NATURAL RESOURCES & ENVIRONMENTAL EDUCATION**

<http://fyi.uwex.edu/wi4hprojects/natural-sciences/>

### **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*

### **ADVENTURES LDR**

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

### **ADVENTURES YTH LDR**

### **AQUATIC SCIENCE**

### **ASTRONOMY**

### **ASTRONOMY LDR**

### **ASTRONOMY YTH LDR**

### **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*

### **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*

### **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*

### **BACKPACKING & HIKING LDR**

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

### **BACKPACKING & HIKING YTH LDR**

### **BEEES**

### **BICYCLING – ENVIRON ED**

What you can do in this project:

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

Grades: 3-12

Resource: 4H446, *Bicycling*

### **BIRDS**

### **CAMPING**

### **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*

### **CONSERVATION**

### **CONSERVATION LDR**

### **CONSERVATION YTH LDR**

### **CROSS COUNTRY SKIING**

### **DOWNHILL SKIING**

### **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: 08392, *Project Butterfly Wings Youth Guide*

### **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: 08392, *Project Butterfly Wings Youth Guide*

### **ENTOMOLOGY (INSECTS) 3**

What you can do in this project:

- Raise and study mealworms and mosquitoes
- Observe a colony of ants
- Make an insect identification key
- Record and collect aquatic insects
- Explore various gardens and habitats

Grades: 9-12

### **ENTOMOLOGY (INSECTS) LDR**

Resource: 08393, *Project Butterfly Wings Facilitator Guide*

### **ENTOMOLOGY (INSECTS) YTH LDR**

### **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: 08411, *Earth's Capacity*

### **EXPLORING YOUR ENVIRONMENT 2**

What you can do in this project:

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

Grades: 8-10

### **EXPLORING YOUR ENVIRONMENT 3**

What you can do in this project:

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

Grades: 11-12

Resource: 08410, *Ecosystems Services*

### **EXPLORING YOUR ENVIRONMENT LDR**

Resources: 08412, *Exploring Your Environment Facilitator Guide*

PUB-CE-456, *Education Connection*

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

### **EXPLORING YOUR ENVIRONMENT YTH LDR**

### **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*

### **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*

### **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*

### **FISHING 4**

### **FISHING 5**

### **FISHING LDR**

Resource: 07601, *Fishing Adventures- Helper's Guide*

### **FISHING YTH LDR**

### **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*

### **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*

### **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*

## **FORESTRY LDR**

Resource: 08041, *Forestry Helper's Guide*

## **FORESTRY YTH LDR**

## **GEOLOGY**

## **GEOLOGY LDR**

## **GEOLOGY YTH LDR**

## **HOME ENERGY**

## **HOME ENERGY LDR**

## **HOME ENERGY YTH LDR**

## **MAPLE SYRUP**

## **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*

## **RECYCLING LDR**

## **RECYCLING YTH LDR**

## **REPTILES**

## **ROCK CLIMBING**

## **ROCK HOUND**

## **SCIENCE DISCOVERY 1**

## **SCIENCE DISCOVERY 2**

## **SCIENCE DISCOVERY LDR**

## **SCIENCE DISCOVERY YTH LDR**

## **TAXIDERMY**

## **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*

## **WATER LDR**

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

## **WATER YTH LDR**

## **WEATHER**

## **WEATHER LDR**

## **WEATHER YTH LDR**

## **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*

## **WILDLIFE**

## **WILDLIFE LDR**

## **WILDLIFE YTH LDR**

## **WILDLIFE HABITAT**

## **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*



## **SHOOTING SPORTS EDUCATION**

<http://fyi.uwex.edu/wi4hshootingports/>

## **SHOOTING SPORTS LDR**

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

## **SHOOTING SPORTS YTH LDR**

## **AIR PISTOL**

What you can do in this project:

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

Grades: 3-12

## **AIR PISTOL LDR**

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

## **AIR PISTOL YTH LDR**

## **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*.

## **AIR RIFLE YTH LDR**

## **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

Resource: 751, *Archery Member Record Book*

## **ARCHERY LDR**

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

## **ARCHERY YTH LDR**

## **HUNTING**

What you can do in this project:

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

Grades: 3-12

## **HUNTING LDR**

## **HUNTING YTH LDR**

## **MUZZLELOADING**

What you can do in this project:

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

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

## **MUZZLELOADING LDR**

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

## **MUZZLELOADING YTH LDR**

## **PISTOL (smallbore .22)**

What you can do in this project:

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

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

Resource: 753, *Pistol Member Record Book*

## **PISTOL LDR (smallbore .22)**

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

## **PISTOL YTH LDR (smallbore .22)**

## **RIFLE**

What you can do in this project:

- Explore rifle history and the different models
- Learn to sight-in your rifle and score targets
- Learn various shooting positions used in competition
- Learn safe handling procedures and range rules

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

Resource: 750, *Rifle Member Record Book*

## **RIFLE LDR**

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

## **RIFLE YTH LDR**

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

Resource: 752, *Shotgun Member Record Book*

## **SHOTGUN LDR**

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

## **SHOTGUN YTH LDR**



## **PLANT & SOIL SCIENCES**

<http://fyi.uwex.edu/wi4hprojects/plant-soil-sciences/>

### **CROPS**

#### **CROPS LDR**

#### **CROPS YTH 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*

#### **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*

#### **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*

#### **SOYBEANS (CROPS 4)**

#### **WEED MANAGEMENT (CROPS 5)**

#### **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*

#### **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*

#### **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*

#### **FLOWERS LDR**

Resource: 4H1041W, *Gardening Helper's Guide*

#### **FLOWERS YTH LDR**

#### **FRUITS 1**

What you can do in this project:

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

Grades: 3-12

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

#### **FRUITS 2**

What you can do in this project:

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

Resources: A1656, *Growing Grapes in Wisconsin*  
A2072, *Growing Pears in Wisconsin*

#### **FRUITS 3**

#### **FRUITS LDR**

#### **FRUITS YTH LDR**

#### **HERBS**

#### **HERBS LDR**

#### **HERBS YTH LDR**

#### **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*



## 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*

## 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*

## HOME GROUNDS LDR

## HOME GROUNDS YTH LDR

## HORTICULTURE

## HORTICULTURE LDR

## HORTICULTURE YTH LDR

## 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*

## 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*

## 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*

## HOUSE PLANTS LDR

Resource: 4H1041W, *Gardening Helper's Guide*

## HOUSE PLANTS YTH LDR

## 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*

## PLANT CRAFTS LDR

## PLANT CRAFTS YTH LDR

## SOIL SCIENCE 1

## SOIL SCIENCE 2

## SOIL SCIENCE 3

## SOIL SCIENCE LDR

## SOIL SCIENCE YTH LDR

## 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*

## 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*

## 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*

## VEGETABLES LDR

Resource: 4H1041W, *Gardening Helper's Guide*

## VEGETABLES YTH LDR



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

<http://fyi.uwex.edu/wi4hprojects/stem-science-technology-engineering-math/>

### **STEM Exploring**

### **STEM LDR**

### **STEM YTH LDR**

### **AEROSPACE 1**

What you can do in this project:

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

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*

### **AEROSPACE LDR**

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

### **AEROSPACE YTH LDR**

### **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)

### **GEOSPATIAL LDR**

### **GEOSPATIAL YTH LDR**

### **GEOCACHING**

### **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*

### **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*

## **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*

## **ROBOTICS LDR**

## **ROBOTICS YTH LDR**

## **SCIENCE**

## **SCIENCE LDR**

## **SCIENCE YTH LDR**

## **WIND ENERGY**

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

### **Leader Resources**

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



## **OTHER PROGRAMS**

## **SAFETY**

## **SAFETY LDR**

## **SAFETY YTH LDR**



## **INTERNATIONAL PROGRAMS**

## **INTERNATIONAL 1**

What you can do in this project:

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

Grades: 3-12

## **INTERNATIONAL 2**

## **INTERNATIONAL 3**

## **INTERNATIONAL LDR**

## **INTERNATIONAL YTH LDR**