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 EXTENSION

2011-2012



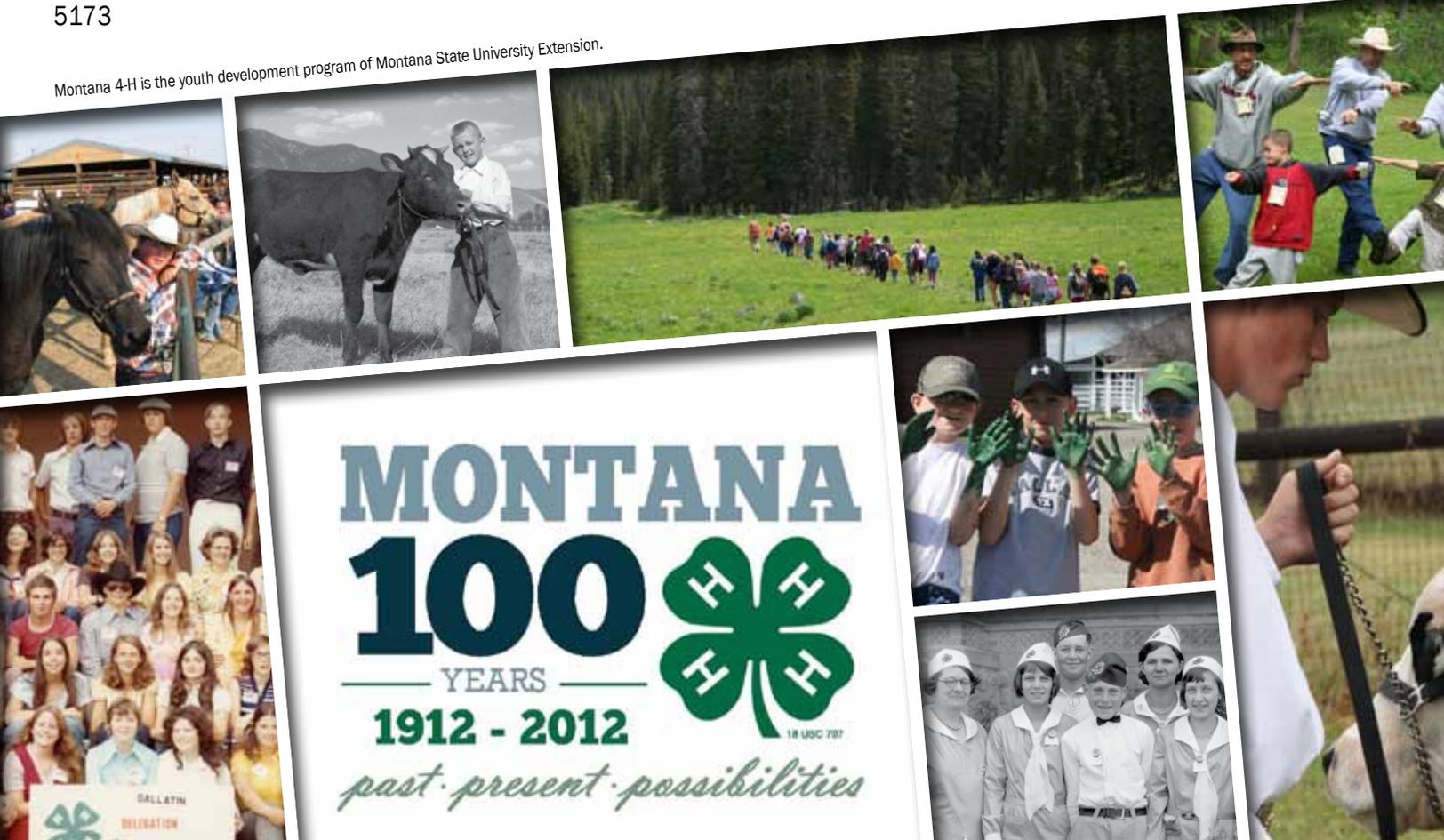
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Clover

Montana 4-H Projects

5173

Montana 4-H is the youth development program of Montana State University Extension.



MONTANA
100
 YEARS
1912 - 2012



18 USC 707

past · present · possibilities





Dear 4-H'ers, Leaders and Parents,

Meriwether Lewis and William Clark are famous men who explored Montana more than 200 years ago when people knew very little about the vast western frontier. Have you ever wondered how we now know so much about their adventures, the route they followed, the equipment they used, the information they collected and their everyday interactions? The answer is pretty simple - they kept accurate records, maps, journals and drawings which give us a glimpse into their lives and experiences. As we celebrate the 2012 Montana 4-H Centennial and 100 years of 4-H history, you have an opportunity to be like Lewis and Clark and explore the people, traditions and events that shape the rich heritage of the 4-H program. Join in the many activities your club or county plans as part of the celebration and enjoy your expedition as you take your place in 4-H history and search for those people and events that shaped your county 4-H program.

4-H is a lot different today, but is still, in many ways, a reflection of its roots. Sound confusing? Think about this - would you join a corn club or a canning club? That decision would have been made for you in the early 1900's. 4-H started out with corn clubs for boys and then eventually added canning clubs for girls. University educators realized that a way to influence parents to adopt new practices in agriculture was through their children who were more willing to try new methods and practices. This developed into boys' and girls' clubs and eventually into 4-H, as we currently know it. Through hands-on learning, youth of today have the opportunity to explore, learn, and practice new skills in many different project areas and activities.

Over the years 4-H has grown from primarily agricultural projects to robotics, home environment, photography, outdoor adventure clubs and many more. However, the motto "Making the Best Better" and the value in "Learning by Doing" remained strong throughout the 100 year history. Over the years, thousands of youth have developed into great Montana and United States citizens as they learned leadership qualities, became better citizens and found comfort in the arms of 4-H. We are all fortunate to be able to call 4-H home and recall the many experiences that have shaped the lives of so many Montanans.

Sincerely,

A handwritten signature in cursive script that reads "Jill Martz".

Jill Martz, Director
4-H Center for Youth Development



Welcome to Montana 4-H...

Can you believe 4-H has been active in Montana for 100 years? Join in the centennial celebration as you honor the past – present – possibilities of the largest positive youth development program in the state. The 4-H Center for Youth Development serves as a resource to county faculty, local leaders, and youth in all counties and reservations as they *learn by doing* and *make the best better*. Listed below are staff members and a few of the major areas of responsibility associated with their position.

4-H Center for Youth Development



Jill Martz

4-H Center Director

Financial Management, Curriculum Leadership & Coordination, Name & Emblem, Centennial Project, Camping, Interstate Exchange, Policies & Procedures, Evaluation, State Leader Liaison, 4-Health PI



Todd Kesner

Agriculture & Natural Resources Coordinator

Forestry & Plant Science, Wildlife & Fisheries, Shooting Sports/Cowboy Action, Outdoor Adventure, Horse, Livestock and Small Animal, Veterinary Science-AQA, Entomology, Congress Contests, National Shooting Sports Liaison



Pat Brown

Admn. Support/Program Coordinator

Enrollment, Charters, Certificates of Recognition, Volunteer Certification Processing, Event Registration



Brett Schomer

Event & Activity/FCS Coordinator

4-H Website, Recognition/Awards, Centennial Project, Montana 4-H Congress, National 4-H Congress, Family and Consumer Science Projects, Healthy Living Liaison



Stephanie Davison

Citizenship & Sustainable Communities

International Exchange Programs, CYFAR Grant PI, Citizenship Curriculum, Citizenship Seminar, Service Learning, International Program Guides, Citizenship Liaison



Cody Stone

Volunteer & Leadership Dev. Specialist

Volunteer Leader Training and Resources, Risk Management, Ambassadors, Teen Leadership, OJJDP Grant PI, Officer Training Resources, Program Planning, Volunteer Liaison



Caroline Dettle

Military Program Coordinator

Operation Military Kids Grant, Military Club Grant, Support of Military Families, Babysitting Curriculum, MTL Lab, Military Liaison

4-H Special Project Staff



Roni Baker

Curriculum Coordinator

Curriculum Review/Revisions, Training, Clover Project Selection Guide, Cloverbuds, Exploring 4-H, Family Adventures, New Family Handbook, Communications, Self – Determined, Judging Materials, Congress Contests, Afterschool Liaison



Nico Cantalupo

Livestock Quality Assurance

4-H Foundation



Sandra Germann

Executive Director, Montana 4-H Foundation

Major Gift Acceptance and Fundraising, Overseeing Investment Portfolio and Budget, Education and Marketing



Martha Klaumann

Office Manager, Montana 4-H Foundation

Bookkeeping and Fiscal Records, Database and Publications, Coordination of Board of Director Functions

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New Weed Publications Available from MSU Extension

Four new Extension publications are available that describe the biology, ecology, and management of the noxious weeds of the knotweed complex, flowering rush, Scotch broom, and yellow starthistle.

These weeds are very limited in their distribution across the state and are Priority 1A and 1B species on the Montana noxious weed list.

Preventing further invasion of these species is critical, and starts with learning how to identify them, knowing where they might grow and what to do if and when plants are found. These publications will help you with these important tasks.

These new publications will help Montanans prevent the spread of these noxious weeds by reporting new infestations to their local weed district and properly managing existing infestations.

Biology, Ecology and Management of the Knotweed Complex - EB0196
Biology, Ecology and Management of Flowering Rush - EB0201
Biology, Ecology and Management Scotch Broom - EB0202
Yellow Starthistle: Identification, Biology and Integrated Management - MT201101AG

Publications can be downloaded or ordered through MSU Extension publications, [online](#) or by calling (406) 994-3273; or by email to orderpubs@montana.edu.

Top Sellers

- A Citizen's Guide to Basic Evacuation Procedures - \$0.25
- Home-Canning Pressures and Processing Times - \$0.00
- Freezing Vegetables - \$0.00
- Planting a Successful Home Vegetable Garden - \$0.00
- Drying Vegetables - \$0.00
- Can I Grow That Here? Vegetable Seed and Transplant Schedules for Garden or Container - \$0.00
- Freezing Fruit - \$0.00
- Drying Fruits - \$0.00
- Home Garden Soil Testing & Fertilizer Guidelines - \$0.00
- Pruning Fruit Trees in Montana - \$0.00

Recently Viewed Items

- 4-H Montana 4-H Secretary's Book
- 4-H Learn from the Past: Make the Future Even Better
- 4-H Horsemanship Levels 1-3

Shipping & Handling Fees

- There will be a handling fee of **25¢ per item** purchased.
- Counties and reservations **will not** be charged postage on publications.
- All other groups **will be charged postage** based on exact charges from USPS.

4-H Publications



Alice Schaefer

Extension Distribution Coordinator
Publications and curriculum ordering

Publications is located on first floor of Culbertson Hall.

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As you review this guide, here are some things to consider:

4-H Clover GUIDELINES

This guide lists all projects that are offered on a statewide basis to youth enrolling in 4-H clubs in Montana. Statewide projects are under the priority initiatives of Science, Citizenship and Healthy Living. They are divided into project categories under the following main headings:

Science

- Animal Science
- Engineering and Technology
- Environmental/Natural Science
- Family and Consumer Science
- Plant Science

Citizenship

- Communication and Expressive Arts
- Leadership and Personal Development

Healthy Living

- Health
- Foods and Nutrition

Other Projects

- Cloverbuds
- Exploring 4-H
- Self Determined

Support Materials

- Organizational Support
- Leader Support
- Judging

Some counties offer projects in addition to those listed in this publication. These projects are usually set up to meet a specific need within the county 4-H program. If you are interested in these kinds of projects, contact your county's MSU Extension Office to find out more about them. Many projects also have opportunities for sharing and learning about your unique skills and talents through project achievement programs. Contact your Extension Office to find out how to meet these goals.

4-H Membership/Age Requirement

- Any youth who turns 6 years of age during the 4-H program year (Oct. 1 through Sept. 30) may join a 4-H Cloverbud group.
- Cloverbuds is a non-competitive educational program for youth ages 6 to 8 years of age and is the ONLY project they can enroll in.
- When youth turn 9 during the 4-H year, they may join a regular 4-H club as a full member who can enroll in several different projects. Given the differing maturity and ability of youth this age, a family may choose to have their child continue in a Cloverbud group even though s/he will turn 9 during the coming year. If a youth turns 19 years of age prior to the beginning of the program year (Oct. 1), s/he is not eligible to re-enroll in 4-H unless still in high school.
- Individuals older than 18 years of age who have special needs are eligible to participate in 4-H provided they are still enrolled in high school.
- 4-H membership is open to all eligible youth. The U.S. Department of Agriculture (USDA), Montana State University and Montana State University Extension prohibit discrimination in all of their programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital and family status.
- In recognition of the educational and developmental needs of youth, a general guideline is listed below to help determine which level of projects a youth might be enrolled in based on age.

Classifications	Age Range
Cloverbuds	6 to 8 years old
Junior/ Intermediate	9 to 14 years old
Senior	15 to 19 years old

*Youth who are 19 must be enrolled in high school to participate in 4-H.

County Projects: Some counties offer additional projects to members in their county, different than the state projects listed in this guide. Contact the county Extension office for a listing of these projects.

4-H Priority Initiatives

Science

For 100 years, 4-H has been a part of local communities trying new and innovative techniques to improve their quality of living. 4-H, with its connection to land-grant universities, has the ability to develop America's future generation of scientists and engineers. In 4-H, youth use a rich and diverse set of research-based curricula and activities that provide hands-on, real-world experiences delivered in both informal and formal settings. Delivered through the 4-H program, Science curriculum offers an extraordinary range of engaging and challenging activities for youth of all ages and abilities. Some examples include Robotics, GPS/GIS, Animal Quality Assurance, Veterinary Science and Wind Energy.

Healthy Living

A core belief of 4-H is health, as evidenced by the four H's in the 4-H clover: Head, Heart, Hands, and Health. 4-H is committed to the physical, mental and emotional health of our nation's youth so they may lead healthy and productive lives as youth and into adulthood. 4-H has become a national leader in health-related educational issues including chemical health, mental and emotional health, foods and nutrition, physical health and safety. Examples include *Cooking 1-3*, *Up for the Challenge* and *Party Planning*.

Citizenship

Since its inception, 4-H has placed emphasis on the importance of young people being engaged, well-informed citizens. By connecting to their communities and leaders, youth understand their role in civic affairs and are able to expand their role in decision-making processes. It's clear that civic engagement provides the foundation that helps youth understand the "big picture" of life and learn the skill sets that allow them to become wise leaders for the 21st century. Citizenship Seminar, service learning and International programs are just a few of the many opportunities to learn about and contribute to our global society.

Using the Guide

As you look for projects that interest you, all the information you need to enroll in projects is right here in this guide. The example at right shows the kind of information provided.

ADDITIONAL NOTES:

- Projects should be completed in order, starting with Level 1.
- Publication number needs to be included on order form
- **Prices subject to change**

CAT (Project Title)

The Project Title section gives 4-Her's a general description of what is involved and what will be learned by completing the project.

Cat, Level 1 (Project Level) — 3010 (Project Code)

The Project Level section gives 4-Her's a more specific description of what is involved and what will be learned by completing the project. As levels increase, so do project requirements and learning challenges.

PROJECT REQUIREMENTS:

The Project Requirements section explains what you need to know to complete a project book in order to finish the project.

MATERIALS (Material list for members and leaders. See the following page for letter key.)

- M**Purrr-fect Pals!, BU8148, \$4.00 (Material name, publication number and cost)
- L**Cat Group Helper's Guide, BU8151, \$4.00

ADDITIONAL PROJECT MATERIALS

(Project resource material will be listed at the end of each project section)

4-H Volunteerism Opportunities

Volunteerism and Leadership involves youth and adults in significant roles where they can help facilitate the growth and success of others. Opportunities to contribute in meaningful ways to your club, your community, your country and your world can be varied and numerous. Through these projects, you can help others, serve as a mentor, tutor or coach, and fill important leadership roles that contribute to the overall vitality of your community.

Projects

The projects in this section list all state supported projects available to Montana 4-H members for 2011-2012. Each project is followed by a description and listing of the materials needed to complete the project.

IMPORTANT NOTE: Check with your 4-H leader or Extension agent to see which projects are offered in your area. Not all projects listed in this guide may be available in your community. Abbreviations are used to identify project materials. The following list explains what each abbreviation means.

NEW!..New projects or materials

MMaterials for the 4-H member enrolling in the project.

L.....Materials for 4-H leaders.

S.....Supplemental materials for leaders and/or members.
These materials are optional.

*****.....Additional project materials available beyond the required materials.

Web ...PDF project/materials available on the 4-H, website:
www.montana4h.org

Keeping Records

Keeping records is an important part of completing each project. They help you set goals, keep track of your attendance at meetings, record your demonstrations or talks and a whole lot more.

All 4-H projects require the use of record books, see page 41 for record keeping materials.



Independent Study

Independent study is for any youth who are looking for new challenges and opportunities in 4-H. This allows a member to take the personal initiative to explore topics that have not been investigated while remaining enrolled in a 4-H project. Members enrolling in the independent study phase of any project should develop a detailed learning plan for their work. They should be encouraged to identify an area of interest in the project area, set goals and locate resources (people, publications and materials) helpful in carrying out a project plan. They then determine specific experiences needed to accomplish project goals, establish a realistic timeline for completion, carry out the project learning plan, share experiences with others, evaluate the outcomes and determine what could be improved.

PROJECT REQUIREMENTS FOR INDEPENDENT STUDY

The individualized learning plan should be approved by a parent, 4-H adult volunteer leader or 4-H agent. For assistance in developing a personal learning contract, look at the self-determined project materials or other goal-setting materials. While independent study provides flexibility and creativity, it also requires serious planning, implementation and evaluation.

MATERIALS

MYou Decide, 5314, \$3.00, Web

L.....Helping Them Decide, 5315, \$2.00, Web

SELF-DETERMINED

Self-determined offers an opportunity to develop and carry out a project of individual design. This means selecting a topic, deciding upon goals, obtaining resources and designing records. The member is responsible for developing this project with the advice or direction of an adult. This project can cover any subject and may be related to any current 4-H project. You'll want to design projects that have special interest for you. The success of the project depends upon your initiative. Those who select a worthwhile topic and become intrigued with it often do some of the best and most rewarding 4-H work. The member's manual and the leader's guide suggest ways to proceed.

PROJECT REQUIREMENTS

Evaluate your project by determining the extent to which the goals were accomplished, what was learned and how it could be improved.

Self-determined — 7300

MATERIALS

MYou Decide, 5314, \$3.00, Web

L.....Helping Them Decide, 5315, \$2.00, Web



Animal Science

Animal Science projects teach subject matter related to each animal while helping you develop life skills. In each level, you may choose from a variety of learning goals as you develop an inquiring mind and a desire to seek out the scientific principles involved in raising and marketing livestock. You can develop leadership, initiative, self-reliance and sportsmanship through project activities. You'll learn to accept responsibility by having an animal to care for regularly and the principles of animal nutrition. Through animal science projects you also learn to care for, train and handle animals safely. You can practice taking care of equipment and evaluate several methods of performing a task. You'll better understand and apply research in making wise decisions and investments and use it in managing your animals and planning your goals. Animal science projects are designed to stimulate your interest as you explore the livestock industry or establish a profitable livestock business of your own.

GENERAL PROJECT REQUIREMENTS

By completing the minimum requirements at each level, you'll learn about every part of the project and be ready for the next level. The achievement program will help you set goals, record your successes and be recognized for your good work. Each level can take several years to complete. You are not expected to complete a level each year. In some projects, more than one level can be completed in a year if you are highly motivated. Remember, keeping records is an important part of every livestock project.

MATERIALS

- S.....4-H Livestock Sale, 5310, \$2.00
- S.....4-H Showmanship Guidelines, 5269, \$1.50
- S.....Sheep Resource Handbook for Market and Breeding Projects, 4H194R, \$15.50
- S.....Swine Resource Handbook for Market and Breeding Projects, 4H134R, \$15.50
- S.....Beef Resource Handbook for Market, Breeding and Feeder Cattle, 4H117R, \$15.50
- S.....Breeding Beef Cattle, 5276, \$1.25
- L.....Livestock Quality Assurance for Youth Producers, 5300, \$7.00

BEEF

Beef is an excellent way to learn about an important industry in Montana and the rest of the nation. Through this project, you can learn about all aspects of the beef industry, either by directly caring for a calf or by learning about beef through the 4-H achievement program in each level. You may raise a market calf or manage a breeding animal at any level. You must enroll in level 1, 2 or 3 as well as the market beef (2001) or breeding beef (2002) option within each level. If you enroll in the independent study phase, you are expected to have already completed the three levels of the beef project and have set some learning goals for your independent work.

Beef, Level 1 — 2010

Level 1 activities are for youth who may or may not have their own calf. If you don't own a calf, these activities will help you decide if you want to raise calves by learning more about them. In this level, you will learn about beef cattle, breed identification, locating parts on a steer, judging, halter breaking, fitting a steer, showing a calf, recognizing a healthy animal, selecting feed ingredients and how to shop for beef and beef by-products.

PROJECT REQUIREMENTS

It may take up to three years for you to complete this level. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

Market — 2001

Breeding — 2002

MATERIALS*

- M.....Bite Into Beef, BU8143, \$4.00
- L.....Beef Helper's Guide, BU8146, \$4.00

Beef, Level 2 — 2020

Once you've completed the achievement requirements in level one, you're ready for *Here's the Beef*. In this level, you'll learn about leg structure, how to present oral reasons in judging, feed ingredients, beef behavior, nose printing, parasites, fitting your market beef, ethical issues, beef carcass composition and retail meat cuts.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2001

Breeding — 2002

MATERIALS*

- M.....Here's the Beef, BU8144, \$4.00
- L.....Beef Helper's Guide, BU8146, \$4.00

Beef, Level 3 — 2030

As an advanced member, you have several opportunities to share your knowledge and experience about beef cattle with other members. You'll also gain leadership skills as you help others learn about cattle. In this level, you will teach others about beef cattle, explore career opportunities, and learn about selection, judging, fees, health, reproduction, meats and marketing.

PROJECT REQUIREMENTS

It may take as long as three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2001

Breeding — 2002

MATERIALS*

- M.....Leading the Charge, BU8145, \$4.00
- L.....Beef Helper's Guide, BU8146, \$4.00

*ADDITIONAL PROJECT MATERIALS

- M.....Market Beef Project Manual, 5264, \$3.00
- S.....Evaluating Modern Beef Cattle, 2B1104, \$3.00
- S.....Beef Resource Handbook for Market, Breeding and Feeder Cattle, 4H117R, \$15.50

Beef Independent Study — 2099 (see pg 7)**Beef Helper's Guide, BU8146, \$4.00**

Find a variety of group learning activities, including skill-a-thons, quiz bowls, games, presentations, Beef Bingo and several management skill activities.

CAT

Cat will help you learn more about one of our most common household pets. Through a flexible project and achievement program, you will explore all kinds of things about cats—from nutrition to showing. This project provides a fun and exciting alternative to large animal projects. You can get started in animal project work and learn the basics about care and companionship.

Cat, Level 1 — 3010

This level is for youth who may or may not have a cat of their own. The important thing is that you want to learn more about cats and care about animals. If you don't have a cat, the activities in this level will help you decide whether you want a cat in the future. In the project, you will learn about breeds of cats, cost of raising a cat, how to care for and groom a cat and much more.

PROJECT REQUIREMENTS

You may take up to three years to complete this level. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS*

- M**Purrr-fect Pals! BU8148, \$4.00
- L**Cat Group Helper's Guide, BU8151, \$4.00

Cat, Level 2 — 3020

After completing the achievement program in level one, you will advance to this project. Besides learning a lot about yourself and practicing important life skills, you will learn about organizations that have information about cats, how to show a cat, how to train a cat, about careers related to cats, how to read and understand a feed label, about external parasites that can affect cats and more.

PROJECT REQUIREMENTS

You may take up to three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M**Climbing Up! BU8149, \$4.00
- L**Cat Group Helper's Guide, BU8151, \$4.00

Cat, Level 3 — 3030

Designed for advanced members, this project offers you a variety of ways to share your knowledge and experience and develop leadership skills. In this level, you'll learn how to develop a business plan, learn about genetics, explore career choices, organize a cat quiz bowl, research cat laws, and learn about diseases, reproduction, behavior and showmanship.

PROJECT REQUIREMENTS

It may take up to three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M**Leaping Forward, BU8150, \$4.00
- L**Cat Group Helper's Guide, BU8151, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- M**4-H Cat Project, EM4809, \$3.00
- M**Cat Fitting and Showing, EM4810, \$3.00

Cat Independent Study — 3099 (see pg 7)**Cat Group Helper's Guide, BU8151, \$4.00**

Find group activities in this guide—an excellent way to involve everyone in learn-by-doing cat project sessions.

DAIRY CATTLE

The Dairy Project is for members who want to learn more about dairy animals and who may want to care for and raise one or more female dairy animals. If ownership is not possible, this project also allows you to have a contract with a dairy to care for one or more animals. Members usually start with a heifer calf or yearling heifer. Older members may start with a producing cow. You should keep milk production records on all producing cows, using Dairy Herd Improvement Association (DHIA) guidelines. This project also provides you with an opportunity to start with a calf and raise it to a producing cow.

Dairy Cattle, Level 1 — 2110

This level is for beginning members who may or may not own a dairy animal. Through the activities in this level, you will learn about the parts of the dairy cow, various dairy breeds and the cost to raise a calf. You will also learn how to care for a dairy animal and how to recognize desirable traits when selecting calves. If you don't already have a dairy animal, some of the activities in this level will help you decide whether you want to raise dairy cattle in the future. It may take up to three years to complete this level.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS

- M**Dig Into Dairy, BU6154, \$3.50
- L**Dairy Group Activity Guide, BU6157, \$4.00
- S**Dairy Cattle Feed Sheet, Web

Dairy Cattle, Level 2 — 2120

Level 2 offers new challenges and opportunities to explore a range of activities related to dairy cattle and the dairy industry. In this level, you will learn about housing, hay quality, milking, animal health, parasites, behavior and food safety. You will also learn about ethical decision-making, judging and careers.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS

- M** Moooving Ahead, BU6155, \$3.00
- L** Dairy Cattle Group Activity Guide, BU6157, \$4.00

Dairy Cattle, Level 3 — 2130

By now, you are probably an expert on dairy cattle and certainly know more than you did when you started this project. Whether you raise one calf or several cows, you are in an excellent position to share your knowledge and experiences with others. As you develop your leadership skills, strive to complete the dairy achievement program. You'll also find activities to help you manage your herd, practice mastitis detection, balance a ration, detect pregnancy and deliver a calf. You will also learn about body condition scoring, selecting cattle through records, promoting dairy products and exploring career opportunities.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS

- M** Leading the Way, BU6156, \$3.00
- L** Dairy Cattle Group Activity Guide, BU6157, \$4.00

Dairy Independent Study — 2199 (see pg 7)**Dairy Cattle Group Activity Guide, BU6157, \$4.00**

Four chapters include Cow Talk Glossary Terms, Pedigree Power, a dairy pyramid game and a dairy skillathon as well as many other resources.

DOG

Dog is perfect for youth who are interested in learning more about dogs, how to care for a dog, and how to train a dog in basic or advanced commands. The dog project is unique and not meant to conform to AKC dog show or other professional standards. Although beginners do not need to own a dog to participate in the first level of the project, the more advanced levels do require dog ownership. You'll need to keep your journals up-to-date and record expenses for the project. Each level may take up to three years to complete. Depending on your area of interest in the dog project, you must enroll in Level 1, 2 or 3, and also sign up for either Dog Obedience (3101) or Dog and Puppy Care (3102) within each level.

Dog, Level 1 — 3110

In level 1, the activities are for those who may or may not have a dog of their own, but want to learn more. If you don't have a dog, some of the activities in this level may help you decide whether you want to make the commitment to own and care for a dog. You will learn about basic care, training, breeds, parts of the dog, and how to keep a dog healthy and groomed.

**PROJECT REQUIREMENTS**

You may take up to three years to complete this level. You must complete a minimum of seven activities and three learning experiences each year to complete the project.

Dog Obedience — 3101**Dog & Puppy Care — 3102****MATERIALS***

- M** Wiggles 'n' Wags, BU8166, \$4.00
- L** Dog Helper's Guide, BU8169, \$4.00

Dog, Level 2 — 3120

Level 2 offers opportunities and challenges to explore a wide range of activities related to dogs. Dog ownership is necessary to participate in this level. You will explore more about dog health, nutrition, care, genetic problems, population control, showmanship, training, ethics and budgeting.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Dog Obedience — 3101**Dog & Puppy Care — 3102****MATERIALS***

- M** Canine Connection, BU8167, \$4.00
- L** Dog Helper's Guide, BU8169, \$4.00

Dog, Level 3 — 3130

In this level, you will focus on advanced skills in dog training and management. If you have a special talent for training dogs, you will enjoy the challenge of more advanced training. By this level, you will start to be ready for competing in AKC trials and will be able to earn Companion Dog degrees and others as offered through the American Kennel Club. You will investigate responsible breeding, diseases, caring for geriatric dogs, training, service dogs, dog roles and careers related to dogs. You will also be presented with many leadership opportunities.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project. It may take as many as three years for you to complete this level.

Dog Obedience — 3101**Dog & Puppy Care — 3102****MATERIALS***

- M** Leading the Pack, BU8168, \$4.00
- L** Dog Group Helper's Guide, BU8169, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- L** Dog Resource Handbook 4H201R, \$18.00

Dog Independent Study — 3199 (see pg 7)**Dog Helpers Guide BU8169, \$4.00**

Group games and activities provide helpers with ideas for facilitating learning. Service learning opportunities are encouraged. Training activities and resources are highlighted.

DAIRY GOAT

Goat is designed for members who are interested in learning more about goats. Like some other projects, the goat project is designed in achievement levels. Although beginners do not need to own a goat, the more advanced levels of the project are designed for those who have one or more goats to care for. You can raise a goat for milk, mohair, meat or even for packing.

Dairy Goat, Level 1 — 2210

This level is for youth who may or may not have a goat of his or her own. You will learn about goats - both dairy goats, raised primarily for milk, and Angora goats, raised for mohair. Through the activities in this level, you will have many interesting and exciting challenges. You'll learn about the parts of the goat, breeds, costs to raise a goat, how to care for a goat while developing important life skills and much more.

PROJECT REQUIREMENTS

This level may take up to three years to complete. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS*

- M** Getting Your Goat, BU8352, \$4.00
- L** Dairy Goat Helper's Guide, BU8355, \$4.00

Dairy Goat, Level 2 — 2220

This level offers intermediate learners new challenges and opportunities to explore a wide range of activities related to goats and the goat industry. You'll learn how to keep your goat healthy, feed them for maximum production, prepare for kidding, develop judging skills and milk a goat properly.

PROJECT REQUIREMENTS

Three years may be required to complete this level. You must complete at least seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M** Stepping Out, BU8353, \$4.00
- L** Dairy Goat Helper's Guide, BU8355, \$4.00

Dairy Goat, Level 3 — 2230

By now, you're probably an expert on goats or certainly know more than you did when you started this project. In this level, advanced 4-H members learn about genetics and breeding, careers in the goat industry, diseases, biosecurity, body condition scoring, pedigrees and quality assurance. At this level, you are in an excellent position to share your knowledge and experiences with others. It may take up to three years to complete this level.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M** Showing the Way, BU8354, \$4.00
- L** Dairy Goat Helper's Guide, BU8355, \$4.00

*ADDITIONAL PROJECT MATERIALS

- S** 4-H Goat Manual, OH131, \$6.25
- S** Dairy and Meat Goat Handbook, 4H135R, \$18.00

Goat Independent Study — 2299 (see pg 7)

Dairy Goat Helper's Guide, BU8355, \$4.00

Plan group meetings to get youth involved and excited to learn about goats. Youth will enjoy playing goat-related games, conducting skillathons, giving demonstrations, participating in showmanship contests and other fun group activities.

MEAT GOAT

Meat Goat is designed for members who want to learn about breeds of meat goats, health care, grooming, production, reproduction, management, showmanship, marketing and careers.

Meat Goat, Level 1 — 2211

You will learn about goat breeds and selection, feeding and management, goat health, goat body parts, record keeping, meat goat and dairy conformation, show preparations and sportsmanship.

PROJECT REQUIREMENTS

This level may take up to three years to complete. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS

- M** Just Browsing, BU7909, \$4.00
- L** Meat Goat Helper's Guide, BU7912, \$4.00

Meat Goat, Level 2 — 2221

You will learn about goat diseases, identify poisonous plants, determine body conditions, water quality, goat predators, kidding, goat reproduction, the veterinary profession, selecting stock and show meat goats.

PROJECT REQUIREMENTS

This level may take up to three years to complete. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS

- M** Get Growing with Meat Goats, BU7910, \$4.00
- L** Meat Goat Helper's Guide, BU7912, \$4.00

Meat Goat, Level 3 — 2231

You will discover how to select breeding sires, balance a ration, prevent diseases, control internal and external parasites, practice biosecurity, practice sound ethics, conduct a meat goat judging clinic, judge goats, give oral reasons and explore meat goat products.

PROJECT REQUIREMENTS

This level may take up to three years to complete. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS

- M**Meating the Future, BU7911, \$4.00
LMeat Goat Helper's Guide, BU7912, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- S**4-H Goat Manual, OH131, \$6.25
SDairy and Meat Goat Handbook, 4H135R, \$18.00

Goat Independent Study — 2299 (see pg 7)**Meat Goat Helper's Guide, BU7912, \$4.00**

Groups will enjoy planning a program, completing project records, developing a management calendar, conducting a meat quality assurance program, participating in quiz bowls, skillathons, and tours, giving a presentation and exploring goat-related careers.

HORSE

Horse projects provide youth with an opportunity to handle, care for, ride or drive horses. There are 10 horse projects. Members must have completed levels 1 through 3 in Horsemanship to participate in the Advanced Horse Projects. Members are eligible to participate in Horse projects according to their ability and skill level. SKILL LEVELS DO NOT NECESSARILY CORRESPOND TO YEARS. It is possible to complete several levels in a year; or youth may take several years to complete one level. Assessment sheets are provided for leaders to determine when a member has completed the levels.

**Montana Horse Helmet Policy**

A certified equestrian helmet with safety harness fastened is required in over fence classes and gymkhana events, activities and practice sessions. Gymkhana refers to horseback speed events (timed or un-timed) that do not use livestock. Events that fall in this category include, but are not limited to: barrel racing, pole bending, keyhole, stake, rescue races, pony express race, etc. Events not included in this policy are events such as calf roping, team roping, goat tying, and team penning that may be timed, but use livestock. Participants in the 4-H Horse Project are required to attend a helmet education workshop and/or view the video "Every Time, Every Ride" once as a junior 4-H member (9-13) and once as a senior 4-H member (14 and up). It is the responsibility of the parent or guardian of the 4-H member to see that the headgear worn complies with standards and is in good condition. The Montana 4-H Center for Youth Development encourages the use of ASTM certified/SEI approved safety helmets in all equine events. Protective headgear may be used in all classes and shall not be discriminated against. Helmet use is encouraged in all 4-H horse activities any time a 4-H member is around a horse. Counties may establish more stringent policies regarding helmet use.

MATERIALS

- L**Horse Education DVD "Every Time, Every Ride";
 5324, \$12.00
LHorse Helmet Safety Slide show, Web

Horsemanship

Horsemanship is the basis for the horse project. All members must complete Horsemanship levels 1, 2 and 3 before entering any other Horse project, with the exception of Horse Judging, Career Horse Showing and Packing, which may be taken simultaneously with any mounted horse level. (See the project descriptions for specific assessment requirements.) In some cases, the leader may determine it best to use Horseless Horse Project levels 1, 2 and 3. Horsemanship has seven levels. Depending on which form of riding you practice, use the following numbers to enroll in the appropriate level.

WESTERN

- Level 1 — 2301**
Level 2 — 2302
Level 3 — 2303
Level 4 — 2304
Level 5 — 2305
Level 6 — 2306
Level 7 — 2307

ENGLISH

- Level 1 — 2371**
Level 2 — 2372
Level 3 — 2373
Level 4 — 2374
Level 5 — 2375
Level 6 — 2376
Level 7 — 2377

NOTE: Remember, for the state horse show, you can show only one level above or below the level in which you are enrolled.

MATERIALS

- M**Introduction to Horsemanship Manual levels 1-3,
 5246, \$5.00
MIntroduction to Horsemanship, Manual levels 4-7,
 5262, \$5.00
MMontana 4-H Horsemanship Project Manual, 2C1160, \$5.00
LEvery Time Every Ride DVD (Horse Helmets), 5324, \$12.00

Horseless Horse

If you don't have a horse, some of the activities in this project will help you decide whether you really want to raise or learn more about horses. If you currently do not have a horse, but you think that one day you will own a horse and will want to participate in other horse projects, you should enroll in this project. As a "Horseless Horse" project member, you can also participate in horse judging and horse career projects without owning your own horse.

Horseless Horse 1 — 2311

In this level, you will learn how to identify the parts of a horse, horse behavior, horse breeds, costs of raising a horse, how to care for a horse, horse facilities, horse safety rules and much more. But, learning about horses is not all you'll do. You'll also have the opportunity to present a demonstration, take tours, watch a horse show and attend a horse clinic.

PROJECT REQUIREMENTS

Do at least seven of the required and optional "Spur You On" activities in Level 1. Complete at least 21 of the required and optional "Spur You On" activities in Level 1 within three years to complete this program.

MATERIALS

- M**Giddy Up and Go, Level 1 BU8053, \$4.00
LHorseless Horse Project Helper's Guide, BU8058, \$4.00

Horseless Horse 2 — 2312

In Horseless Horse 2, you will learn about selecting a horse, nutrition, care, teeth, bones, judging and how to give oral reasons.

PROJECT REQUIREMENTS

Do at least seven of the required and optional “Spur You On” activities in Level 2. Complete at least 21 of the required and optional “Spur You On” activities in Level 2 within three years to complete this program.

MATERIALS

- M**Head, Heart and Hooves, Level 2 BU8054, \$4.00
- L**Horseless Horse Project Helper’s Guide, BU8058, \$4.00

Horseless Horse 3 — 2313

This level of the horseless horse project rounds out your knowledge about horses and prepares you for eventual horse ownership. In this level, you will explore horse reproduction, diseases, health care and pasture management. You will also learn about appropriate shelters and financial planning. You’ll also be equipped to teach others about horses, too.

PROJECT REQUIREMENTS

Do at least seven on the required and optional “Spur You On” activities in Level 3. Complete at least 21 of the required and optional “Spur You On” activities in Level 3 with three years to complete this program.

MATERIALS

- M**Stable Relationships, Level 3 BU8055, \$4.00
- L**Horseless Horse Project Helper’s Guide, BU8058, \$4.00

Horseless Horse 4 — 2314

In level 4 you will learn nine basic riding skills and 10 horsemanship skills. You will also learn training techniques, all about trail riding and selection and use of tack.

PROJECT REQUIREMENTS

Do at least seven of the required and optional “Spur You On” activities in Level 4. Complete at least 21 of the required and optional “Spur You On” activities in Level 4 within three years to complete this program.

MATERIALS

- M**Riding the Range, Level 4 BU08056, \$4.00
- L**Horseless Horse Project Helper’s Guide, BU8058, \$4.00

Horseless Horse 5 — 2315

In level 5 you will learn more advanced riding skills. You will also learn the Quarter System, horse showmanship, ethics and leadership.

PROJECT REQUIREMENTS

Do at least seven of the required and optional “Spur You On” activities in Level 5. Complete at least 21 of the required and optional “Spur You On” activities in Level 5 within three years to complete this program.

MATERIALS

- M**Jumping to New Heights, BU8057, \$4.00
- L**Horseless Horse Project Helper’s Guide, BU8058, \$4.00

Horse Project Helper’s Guide, BU8058, \$4.00

Seventeen featured group activities, some are Horse Bingo, You be the Judge, Corral Your Character and Skill-a-thons.

Colt to Maturity

This project is for those who own or have available a colt or filly to care for and train. This is a five-year progressive project beginning with a yearling. The project is designed to help you select a foal and train it to maturity. You must be 12 years old or older during the current project year; have completed Horsemanship levels 1, 2 and 3; and demonstrated ability to handle the project to the county horse leader or designated person. Stallions will be allowed only in the yearling phase. Check with local county fair rules on exhibiting.

- Level 1 — 2321**
- Level 2 — 2322**
- Level 3 — 2323**
- Level 4 — 2324**
- Level 5 — 2325**

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

- M**Training Horses - Yearlings to five-year-old, 2B0353, \$3.00
- M**Colt to Maturity Manual, 5248, \$3.00

Packing

This project develops your knowledge and skills in the art and science of using horses to transport materials. This project also provides opportunities for enjoying nature in a way that is otherwise difficult to achieve. Members may enroll in this project simultaneously with any other mounted horse project.

- Level 1 — 2335**
- Level 2 — 2336**
- Level 3 — 2337**
- Level 4 — 2338**
- Level 5 — 2339**

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

- M**Montana 4-H Horse Packing Manual, 5251, \$3.00

Driving

This is a project to teach you basic horse driving skills, safety and training a horse to drive in single or multiple hitches. Members must have completed assessment for horse projects to participate in this project.

- Level 1 — 2341**
- Level 2 — 2342**
- Level 3 — 2343**
- Level 4 — 2344**

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

- M**Montana 4-H Horse Driving Manual, 5252, \$3.00

Horse Showing

This project teaches you to select, train and maintain your horses for showing. This project will help you become an adept and knowledgeable horseman or horsewoman. It will also help you learn to plan and conduct shows and clinics. Members may enroll in this project simultaneously with any other mounted horse project.

Level 1 — 2345

Level 3 — 2347

Level 2 — 2346

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

MMontana 4-H Showing Horse Manual, 5253, \$3.00

Horse Judging — 2350

This project teaches you to select and evaluate horses, give oral reasons and place classes of conformation horses and performance horses. Members may enroll in this project simultaneously with any mounted horse project.

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

M New Mexico 4-H Horse Judging Manual, NM200-R48, \$3.00

Green Horse

This project is for those who have horses that are not fully trained, but don't fit into the colt to maturity project because of age or ability. To participate in this project, you must be 12 years old or older during the current project year; have completed Horsemanship levels 1, 2 and 3; and have demonstrated an ability to handle the project to the county horse leader or designated person.

Level 1 — 2355

Level 3 — 2357

Level 2 — 2356

Level 4 — 2358

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

MMontana 4-H Green Horse Manual, 5256, \$3.00

MTraining Horses - Yearlings to five-year-olds, 2BO353, \$3.00

Careers with Horses — 2360

This project is intended to acquaint you with careers in the horse industry and may be taken simultaneously with any mounted horse project.

PROJECT REQUIREMENTS

The Project Leader or Agent can assist the member in setting goals for each project year. Completion of these goals will satisfy the requirements of this project.

MATERIALS

MMontana 4-H Horse Careers Manual, 5255, \$2.00

Horse Independent Study — 2399 *(see pg 7)*

POCKET PETS

Pocket Pets helps you learn about various small hand pets and how to care for them. This project is an excellent beginning project, especially if you are a younger member, who wants to learn what it's like to care for an animal. Through your work in this project, you will develop important life skills as well as practical skills through hands-on activities that will teach you about your pet's needs. Pets included in these materials are ferrets, snakes and turtles, hamsters, gerbils, mice, fish, frogs and toads, lizards, birds, guinea pigs and others.

Pet, Level 1 — 3210

The activities in Level 1 will help you learn about different kinds of pets, costs to raise them and how to care for them. If you don't already have a pet, some of the activities will help you decide whether or not you want one. You'll also be learning about yourself, too. You'll learn how to communicate effectively with others, how to make good decisions, how to be responsible and how to plan and organize. You can work in this level for up to three years.

PROJECT REQUIREMENTS

You must complete at least seven activities and three learning experiences each year to complete this project.

MATERIALS

MPet Pals, BU6359, \$4.00

LPet Group Activity Guide, BU6362, \$4.00

Pet, Level 2 — 3220

Level 2 will help you expand your knowledge of pets and improve your life skills. You'll also be presented with new challenges and opportunities to explore a wide range of activities related to pets. Some of the things you'll learn about include an animal's digestive system, pet breeding, nutritional requirements for pets, comparison shopping, signs of good animal health and how pets communicate.

PROJECT REQUIREMENTS

You must complete at least seven activities and five learning experiences each year to complete this project.

MATERIALS

MScurrying Ahead, BU6360, \$4.00

LPet Group Activity Guide, BU6362, \$4.00

Pet, Level 3 — 3230

This project provides you with several opportunities to develop your leadership and communication skills as you strive to complete Level 3 of the achievement program. You'll also find activities to help you develop a business, explore careers and teach others. You'll learn about genetics, how to start your own business, the pet industry, explore animal welfare issues, think environmentally, investigate "pet" sayings and learn about pet diseases.

PROJECT REQUIREMENTS

You must complete at least seven activities and five learning experiences each year to complete this project.

MATERIALS

- M**Scaling the Heights, BU6361, \$4.00
- L**Pet Group Activity Guide, BU6362, \$4.00

Pocket Pets Independent Study — 3299 *(see pg 7)***Pet Group Activity Guide, BU6362, \$4.00**

Find many fun and engaging group games and activities to further expand the pet project experience for youth.

POULTRY

Poultry is designed to help you learn about chickens and other poultry. Through your work in this project, you will acquire an understanding of scientific poultry management and marketing practices. You will also gain business experience and insight into the values and principles of purchasing, marketing, financial record keeping and obtaining credit. In addition, this project will help you understand the poultry industry and its role in agriculture and the economy.

PROJECT REQUIREMENTS

Each level of the 4-H poultry project may take up to three years to complete and it is not expected that members will complete a level each year.

Poultry, Level 1 — 3310

Through the activities in this level, you will learn about poultry and egg parts, breeds, costs to raise poultry, how to prepare for chicks, how to care for and handle your birds, how to select pullets, showing poultry and more. You'll also be learning about yourself, too. Through your work in this level of the poultry project, you will learn how to speak to groups, work with other people, make decisions, take risks, along with planning and organization and being responsible.

PROJECT REQUIREMENTS

Through the achievement program, you will get to decide what you want to learn about poultry and how fast you want to proceed. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

MATERIALS*

- M**Scratching the Surface, BU6363, \$4.00
- L**Poultry Helper's Guide, BU6366, \$4.00

Poultry, Level 2 — 3320

This level offers you new challenges and opportunities to explore a wide range of activities. You'll learn about egg production, how to recognize a healthy flock, the skeletal structure of birds, how to select and judge broilers, about pecking orders, how to prevent diseases of poultry flocks, how to select breeding pens, how to read a feed tag, make an egg Candler and how to build a budget.

PROJECT REQUIREMENTS

Your project work is guided by an achievement program allowing you to choose the kinds of things you want to learn and doing them at your own pace. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M**Testing Your Wings, BU6364, \$4.00
- L**Poultry Helper's Guide, BU6366, \$4.00

Poultry, Level 3 — 3330

Now, you'll learn about such things as how to organize a judging clinic, how to manage a laying flock, how genetics influence poultry characteristics, how to handle poultry products safely, how to process chickens for food, about advances in biotechnology and careers in the poultry industry.

PROJECT REQUIREMENTS

You must complete a minimum of seven activities and five learning experiences each year to complete this project.

MATERIALS*

- M**Flocking Together, BU6365, \$4.00
- L**Poultry Helper's Guide, BU6366, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- M**4-H Poultry Production: Raising Pullets, OH151, \$6.50
- M**4-H Poultry Production: Raising Broilers, OH152, \$6.50
- M**Poultry Feed Sheet, 2FM093, Web
- S**National Poultry Judging, 4H460, \$6.50
- S**4-H Guide to Raising Chickens, 147175, \$20.00
- S**Beginner's Guide to Raising and Showing Chickens, DVD-3, \$20.50

Poultry Independent Study — 3399 *(see pg 7)***Poultry Helper's Guide, BU6366, \$4.00**

Learn to guide youth as they participate in 15 learn-by-doing group activities.



RABBIT

You will gain knowledge and skills in managing and caring for rabbits, selecting quality rabbits, feeding balanced rations and maintaining management records on which to base decisions regarding feed, production and breeding. You will also have opportunities to participate and assume responsibility in the 4-H rabbit program.

Rabbit, Level 1 — 3410

This project is designed for the beginning rabbit member with little or no experience in raising rabbits. By the end of the project, you will be able to name several breeds of rabbits, identify the parts of the animal, discuss the sanitation methods needed to raise rabbits, describe good feeding and watering practices, learn to keep feed and financial records and demonstrate proper showmanship procedures.

PROJECT REQUIREMENTS

You must complete at least seven of the required and optional activities and three learning experiences each year to complete this project.

MATERIALS*

- M**What's Hopping? BU8080, \$4.00
- L**Rabbit Helper's Guide, BU8083, \$4.00

Rabbit, Level 2 — 3420

The intermediate level project is designed for 4-H members who wish to expand upon their knowledge gained in the previous level. The project is designed to be completed in 2-3 years.

PROJECT REQUIREMENTS

You must complete at least seven of the required and optional activities and three learning experiences each year to complete this project.

MATERIALS*

- M**Making Tracks, BU8081, \$4.00
- L**Rabbit Helper's Guide, BU8083, \$4.00

Rabbit, Level 3 — 3430

Level 3 of the rabbit project is designed for those who want to explore interest areas of rabbit production. Chapters include Breeding and Genetics, Diseases, Keeping Records, Marketing and Tanning Hides. Select four to five required activities each year to complete. Youth may participate in this project for three years.

PROJECT REQUIREMENTS

You must complete at least seven of the required and optional activities and three learning experiences each year to complete this project.

MATERIALS

- M**All Ears, BU8082, \$4.00
- L**Rabbit Helper's Guide, BU8083, \$4.00

*ADDITIONAL PROJECT MATERIALS

- S**Rabbit Resource Handbook for Breeding, Market and Pet Projects, 4H228R, \$15.50

Rabbit Independent Study — 3499 *(see pg 7)*

Rabbit Helper's Guide, BU8083, \$4.00

Fifteen exciting rabbit group activities make group learning fun and educational.

SHEEP

The Sheep project provides you with a well-rounded education and experiences, even though you may not raise an animal. The project includes three achievement levels: herdsman, advanced herdsman and master herdsman. If you enroll in this project, you will learn a lot about the modern sheep industry either by directly caring for a lamb or by learning about sheep through the achievement program in each level. You may carry either a market lamb or manage a ewe breeding project at any level. Depending on your area of interest, you must enroll in one of the three levels as well as the market lamb (2401) or breeding (2402) option within each level. If you enroll in the independent study phase, you must have already completed all three levels of the sheep project and have some set learning goals for your independent work.

Sheep, Level 1 — 2410

The activities in Sheep Level 1 are for youth who may or may not have their own lamb, but want to learn more about sheep. In this level, you will learn to identify the parts of a lamb, about the breeds of sheep, sheep behavior, uses of wool, about sheep by-products, fitting a sheep for show, showing a sheep, how to determine the health of a lamb, judging lambs and how to develop a management plan.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

Market — 2401

Breeding — 2402

MATERIALS

- M**Lambs, Rams and You, BU6367, \$4.00
- L**Sheep Group Activity Guide, BU6370, \$4.00

Sheep, Level 2 — 2420

In level 2 you'll learn more about the sheep project, including sheep parasites, meat safety, judging, using medications safely, the digestive system of sheep, health problems, management practices, careers, sheep production cycles, managing money, meat cuts and more.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2401

Breeding — 2402

MATERIALS

- M**Shear Delight, BU6368, \$4.00
- L**Sheep Group Activity Guide, BU6370, \$4.00

Sheep, Level 3 — 2430

As an advanced member in the sheep project you gain leadership skills as you help others learn about sheep. In this level you are encouraged to teach others about sheep, explore career opportunities in the sheep industry, set production goals and make a budget for a sheep enterprise. You can also plan and conduct a sheep event in your community, address contemporary issues related to sheep production, learn about marketing and reproduction, plan and organize a judging contest and explore genetics.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2401 Breeding — 2402

MATERIALS

- M** Leading the Flock, BU6369, \$4.00
- L** Sheep Group Activity Guide, BU6370, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- M** Sheep Raising for Beginners, 2B0324, \$3.00
- M** Livestock Feed Sheet, 2FM099, Web
- S** Sheep Resource Handbook for Market and Breeding Projects, 4H194R, \$15.50
- S** Judging and Classification of Wool, 2C0285, \$3.00
- S** Market Lamb Evaluation, 280343, \$1.50

Sheep Independent Study — 2499 (see pg 7)**Sheep Group Activity Guide, BU6370, \$4.00**

Helpers will enjoy involving youth in sheep skillathons, sheep bingo, sheep pyramid, developing a management calendar and many more activities.

SWINE

The Swine Project is an excellent way to learn about the pork industry. Through this project, you can learn about all aspects of the pork industry, either by directly caring for a hog or by learning about swine through the 4-H achievement program in each level. At any level you may carry either a market pig or manage a sow and litter. Depending on your area of interest in the swine project, you must enroll in one of the three levels as well as for either the market hog (2501) or breeding (2502) option within each level. If you enroll in the independent study phase, you are expected to have already completed the three levels of the swine project and to have set some learning goals for your independent work.

Swine, Level 1 — 2510

The activities in Swine Level 1 are for youth who may or may not have their own pig. If you don't own your own pig now, these activities will help you decide if you really want to raise them or learn more about them. In this level, you will learn to identify the parts of a pig, breeds, how to judge market hogs, explore the digestive system, identify pork cuts and how to fit and show a hog.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and three learning experiences each year to complete this project.

Market — 2501 Breeding — 2502

MATERIALS*

- M** The Incredible Pig, BU8065, \$4.00
- L** Swine Helper's Guide, BU8068, \$4.00

Swine, Level 2 — 2520

In this level, you'll learn about herd health, how to develop a pig health plan, about pork production from farrow to finish, how to balance a ration, about cooking and preparing pork products, about careers in agriculture, about symptoms of swine disease and how to present oral reasons on a class of hogs.

PROJECT REQUIREMENTS

It may take three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2501 Breeding — 2502

MATERIALS*

- M** Putting the Oink in Pig, BU8066, \$4.00
- L** Swine Helper's Guide, BU8068, \$4.00

Swine, Level 3 — 2530

As an advanced member, you will have several opportunities to share your knowledge and experience about hogs with other 4-H members. You will be encouraged to teach others about pigs, explore career opportunities in the swine industry, organize a judging and showmanship clinic, plan a swine quiz bowl, operate and manage a swine breeding operation, learn about managing waste and explore genetics.

PROJECT REQUIREMENTS

It may take as long as three years to complete this level. You must complete a minimum of seven activities and five learning experiences each year to complete this project.

Market — 2501 Breeding — 2502

MATERIALS*

- M** Going Whole Hog, BU8067, \$4.00
- L** Swine Helper's Guide, BU8068, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- M** 4-H Swine Production, 2B1198, \$3.00
- S** Swine Resource Handbook for Marketing and Breeding Projects, 4H134R, \$15.50
- S** Starting a 4-H Pig Project, 2C1234, \$3.00

Swine Independent Study — 2599 (see pg 7)**Swine Helper's Guide, BU8068, \$4.00**

Group activities such as quiz bowls, skillathons, glossary games, swine pyramid, exploring a meat contest and understanding quality assurance keep youth involved.

VETERINARY SCIENCE

Veterinary Science is designed to help you better understand animals. Whether you live in a rural or an urban area, knowledge of animals, animal diseases and health care is valuable. Knowledge in Veterinary Science assists in the protection of human welfare by applying the art and science of medicine to animals. Inspection of meat and poultry, along with the care of all food and pet animals, controls for diseases that already affect humans and how to safeguard our food supply are some of the cool things you'll learn. You are not required to own an animal to enroll in this

project, but it would be helpful if you had one available to study.

Veterinary Science, Level 1 — 2610

No matter what kind of animal you have, or even if you don't have one, this project will help you learn about animals. It will also help you decide if you want to purchase and care for animals in the future. In this project, you will learn about the normal animal, basic anatomy and body systems, elementary principles of disease and careers with animals.

PROJECT REQUIREMENTS

You may take up to three years to complete this level. Each year you should identify at least four goals and complete a minimum of seven of the activities in Level 1.

MATERIALS

- M** From Airedales to Zebras, BU8048, \$4.00
- L** Veterinary Science Helper's Guide, BU8051, \$4.00

Veterinary Science, Level 2 — 2620

Level 2 offers new challenges and opportunities to explore a wide range of topics and activities. You will learn to create health records for your animal, investigate body systems, discover the importance of immunity, explore biosecurity measures, examine parasite life cycles, recognize the importance of quality assurance, conduct a food safety experiment, investigate disease-causing agents, apply math and science skills, and consider ethics and animal welfare.

PROJECT REQUIREMENTS

You may take up to three years to complete this level. Each year you should identify at least four goals and complete a minimum of seven of the activities in Level 2.

MATERIALS

- M** All Systems Go! BU8049, \$4.00
- L** Veterinary Science Helper's Guide, BU8051, \$4.00

Veterinary Science, Level 3 — 2630

By now, you should be able to share your experience and knowledge with others through some leadership roles in veterinary science. You will learn about genetics and how to describe "typical" animal behavior, conduct an experiment about test reliability, compare reproduction in various species, consider the function of body organs and systems, investigate human-animal bonds, recognize the importance of animal population control and explore careers in veterinary science.

PROJECT REQUIREMENTS

You may take up to three years to complete this level. Each year you should identify at least four goals and complete a minimum of seven of the activities in Level 3.

MATERIALS

- M** On the Cutting Edge, BU8050, \$4.00
- L** Veterinary Science Helper's Guide, BU8051, \$4.00

Veterinary Independent Study — 2699 (see pg 7)

Veterinary Science Helper's Guide, BU8051, \$4.00



Numerous group activities help youth develop essential life skills as they pursue their interest in veterinary medicine.

Engineering and Technology

AEROSPACE

Aerospace involves the fascination of flying an airplane, launching a rocket, conquering space and becoming an astronaut or pilot and comes alive for you in Soaring Above and Beyond. Through fun and challenging activities, you will learn about flying, kites, hot air balloons, remote control airplanes, gliders and space shuttles.

Aerospace, Level 2 — 5010

Whether you have just started exploring aerospace or already know about rockets, hot air balloons, airplanes and kites, you'll enjoy the activities in Lift Off. In this project, you'll learn how to build a straw rocket, make a paper airplane, build a real model rocket, make and read a map, identify airplane models, investigate how weather affects flying, identify parts of a hot air balloon, discover how "angle of attack" affects kite flying and more. Explore your flight plan, select your aerospace helper and complete the Lift Off achievement plan.

PROJECT REQUIREMENTS

You should complete a minimum of seven activities and three leadership experiences each year (such as giving a demonstration, participating in a judging activity, taking a tour, exhibiting your project, or attending a workshop). You will need to complete a total of 21 activities in all to complete this project. You may take three years to complete this level of the aerospace program.

MATERIALS

- M** Lift Off, BU6843, \$4.00
- L** Aerospace Group Activity Guide, BU6846, \$4.00

Aerospace, Level 3 — 5020

In this level you'll learn how to build your own drinking straw and balloon rocket, organize a model rocket launch day, make a paper flight simulator, make a flying wing (glider) and build a controllable glider. You can also make a hang glider, build a Nagasaki Hata Fighter Kite and identify parts of a helicopter.

PROJECT REQUIREMENTS

You should complete a minimum of seven activities and three leadership experiences each year. You will need to complete a total of 21 activities to complete this project. You may take three years to complete this level of the aerospace program.

MATERIALS

- M** Reaching New Heights, BU6844, \$3.00
- L** Aerospace Group Activity Guide, BU6846, \$4.00

Aerospace, Level 4 — 5030

In this level, you will design, build and launch a model rocket, construct and use an altitude tracker, research how to qualify for a pilot's license and plan the most fuel-efficient flight path for a commercial aircraft. You'll also evaluate and design navigation systems, build a flat-style box kite, design and propose a new Emergency Medical Service (EMS) helicopter service, investigate gravity and complete a career profile.

PROJECT REQUIREMENTS

You should complete a minimum of seven activities and three leadership experiences each year. You will need to complete a total of 21 activities to complete this project. You may take three years to complete this level of the aerospace program.

MATERIALS

- M** Pilot in Command, BU6842, \$3.00
- L** Aerospace Group Activity Guide, BU6846, \$4.00

Aerospace Independent Study — 5099 *(see pg 7)*

Aerospace Helper's Guide, BU6846, \$4.00

Many activities are included for hands-on experiential group fun such as aerospace quiz bowls, skillathons and an airport field day.

ELECTRICITY

"Electric Excitement," is the 4-H Electric Energy series. This project will help de-mystify the magic of electric circuits, magnetism, motors and electronics. From making educated guesses and testing them, to building burglar alarms, learning how to select a really good stereo system and other consumer items, this project will get you actively involved in dozens of hands-on, fun activities.

Electric, Level 1 — 5210

Are you ready to experience the magic of electricity? In this project, you will learn about the uses of electricity, selecting appropriate materials for your electric project, how to build your own flashlight or switch, test conductivity, investigate circuits, test materials for magnetism, build and test a compass, build an electromagnet, build a galvanometer and build an electric motor.

PROJECT REQUIREMENTS

Each year you should do at least three of the required activities and four of the optional activities. In addition, you should take part in at least two leadership experiences each year (such as giving a demonstration, participating in a judging activity, taking a tour, exhibiting your project, or attending an electric workshop).

MATERIALS

- M** The Magic of Electricity, BU6848, \$4.00
- L** Electric Excitement Helper's Guide, BU6852, \$4.00

Electric, Level 2 — 5220

In this level, you'll participate in activities such as learning about Ohm's Law using a squirt bottle, using a Volt-Ohm meter, how to read circuit diagrams and how to build a circuit and measure voltages. You'll also build a momentary switch and use it to communicate in Morse code, build a three-way switch, solder connections, build a rocket launcher and build a burglar alarm.

PROJECT REQUIREMENTS

Each year you should do at least three of the required activities and four of the optional activities. In addition, you should take part in at least two leadership experiences each year.

MATERIALS

- M** Investigating Electricity, BU6849, \$3.00
- L** Electric Excitement Helper's Guide, BU6852, \$4.00

Electric, Level 3 — 5230

In the Wired for Power activities you will put together a basic electrical tool and supply kit, interview an electrical inspector, learn about electrical codes, read an electric meter and electric service panels and decipher the symbols on wires and cables. You'll be able to select the most appropriate light bulb for specific situations, learn how to read an appliance nameplate, measure the electric usage of appliances, test for voltage, determine if outlets are grounded, locate your home wiring system, replace a switch and identify what's on each circuit.

PROJECT REQUIREMENTS

To complete this project each year you should do at least three of the required activities and four of the optional activities listed in the manual. In addition, you should take part in at least two leadership experiences each year.

MATERIALS

- M** Wired for Power, BU6850, \$3.00
- L** Electric Excitement Helper's Guide, BU6852, \$4.00

Electric, Level 4 — 5240

Level 4 encourages you to move beyond basic electricity and explore electronics. You'll learn about diodes, transistors, LED's, photocells, SCR's, IC's and amplifiers. These items are all components of the family of solid state electronics. They are also referred to as semiconductors because they can sometimes conduct electric currents and sometimes resist the flow of electric current. They are all an essential part of all modern day electronics products found in the home, office and workplace.

PROJECT REQUIREMENTS

To complete this project each year you should do at least three of the required activities and four of the optional activities listed in the manual. In addition, you should take part in at least two leadership experiences each year.

MATERIALS

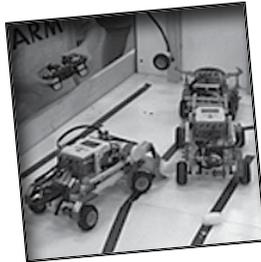
- M** Entering Electronics, BU6851, \$3.00
- L** Electric Excitement Helper's Guide, BU6852, \$4.00

Electric Independent Study — 5299 *(see pg 7)***Electric Excitement Helper's Guide, BU6852, \$4.00**

Find a variety of group activities that can be organized quickly and conducted with a group of three to 15 youth. Youth learn how to conduct an electric skillathon, quiz bowls, electric Bingo and how to calculate amperage.

ROBOTICS

Robotics introduces science, math, engineering and technology skills while teaching life skills. You will learn to build and program a robot to perform increasingly difficult tasks. This project is based on the Lego Mindstorms NXT series. If you have RCX Robots, you can go onto the 4-H Web site and download the Robotics Explorer, BU8364 and the Coach Helpers Guide, BU8366 to complete the project. At the completion of the robotics project (RCX or NXT), youth are skilled enough to enter regional LEGO League competitions.

**Robotics, Level 1 — 5510**

In Level 1, you will learn about robots, the Brain, building and programming robots, about sensors and how to complete challenges. This project works with NXT robots.

PROJECT REQUIREMENTS

To complete this project you should complete a minimum of seven activities and one challenge; there are a total of 12. This could be completed in one to two years.

MATERIALS

- M**Robotics 1: NeXT Technology, 509, \$6.50
- L**No Guide

Robotics Independent Study — 5599 *(see pg 7)***SMALL ENGINES**

Small Engines is designed to help you learn about small engines and other power equipment, especially equipment used around the home. It is suitable for urban, suburban and rural youth interested in small engines. In this project, youth will learn how gasoline engines operate, acquire skills needed to operate engines and equipment safely and become familiar with safety rules before starting and while operating engines. You will also create a desire for members to develop safe starting procedures and promote safe practices at home.

Small Engines, Level 1 — 5310

In this introductory level, you learn about the major parts of engines, how to start and maintain engines, safety around motors, how engines are lubricated, the importance of clean air to efficiently functioning engines, cooling systems, how to replace a spark plug and much more.

PROJECT REQUIREMENTS

To complete this project each year, you must complete at least seven activities and complete your records. You may take up to three years to complete this level of the project.

MATERIALS

- M**Crank It Up! BU8186, \$4.00
- L**Small Engines Helper's Guide, BU8189, \$4.00

Small Engines, Level 2 — 5320

In this level, you will prepare yourself for learning about different engine types, internal parts, specialized tools, engine size, compression, seasoning your engine, safety issues, starting your own business and much more!

PROJECT REQUIREMENTS

To complete this project each year, you must complete at least seven activities and complete your records. You may take up to three years to complete this level of the project.

MATERIALS

- M**Warm it Up! BU8187, \$4.00
- L**Small Engines Helper's Guide, BU8189, \$4.00

Small Engines, Level 3 — 5330

In this level you will learn about tearing down and rebuilding an engine, how to use diagnostic tools, "listen" to engines for specific problems and practice properly maintaining engines. You'll use the Internet to find resources, rules and regulations, select a replacement engine, start your own small engines business and learn about potential small engine careers.

PROJECT REQUIREMENTS

To complete this project each year, you must complete at least seven activities and complete your records. You may take up to three years to complete this level of the project.

MATERIALS

- M**Tune It Up! BU8188, \$4.00
- L**Small Engines Helper's Guide, BU8189, \$4.00

Small Engines Independent Study — 5399 *(see pg 7)***Small Engines Helper's Guide for Level 1 BU8189, \$4.00**

Find group activities, helpful hints for each activity in the youth guides and additional small engine project meeting ideas.

WOODWORKING

Woodworking is a perfect project choice if you like wood and enjoy using tools and building things. Can you see yourself someday building a table, wood toy or a chair? As a beginning woodworker, you can build many practical and useful objects. As your skills grow, you will be able to make most of the objects in your house or even build a home! No matter what you make, the joy of completing a woodworking project is the greatest. Through the wonders of working with wood, you'll re-discover the natural curiosity and creativity of your early years by building and constructing items using woods and a wide variety of woodworking tools. From the basic skill of measuring to using advanced equipment such as routers and jointers, "Woodworking Wonders" has something for everyone.

Woodworking, Level 1 — 5410

Learn how to find an area to work on your project, how to identify woodworking tools, woodworking safety and decide on appropriate projects for the year. You'll also learn how to measure and mark boards, use a square, use a portable power drill, hand drill or brace, use a hand saw, identify different types of nails and screws, make a sandpaper block, construct a butt joint and use a hammer safely.

MATERIALS

- M Measuring Up, BU6875, \$4.00
- L Woodworking Helper's Guide, BU6879, \$4.00

Woodworking, Level 2 — 5420

In level 2 you'll be introduced to new tools and ideas. You'll be using power equipment and practicing new woodworking skills. You'll find plans for building a birdhouse, stool and letter holder. In addition, you'll learn about safety, potential careers, identify different woodworking tools, select wood based on grain and recognize the difference between plywood, fiberboard and other types of lumber. You'll develop a project plan and then use a combination square, make a miter cut, make a curved cut using a jig saw, use a chisel, sander and staple gun and connect pieces of wood with glue, then select brushes for painting.

MATERIALS

- M Making the Cut, BU6876, \$4.00
- L Woodworking Helper's Guide, BU6879, \$4.00

Woodworking, Level 3 — 5430

"Nailing It Together" will introduce you to woodworking skills, tools and equipment you may not have used before. In this project, you'll learn how to stay current with technology, explore career opportunities and make a boomerang, belt buckle, puzzle or bookshelf. You'll use a T-bevel, enlarge scale-drawn plans, make a dado joint, use a powered circular saw and a radial arm saw, use a hand plane and table saw, learn about hinges, hasps and flush plates, understand the difference between various clamps, make a dowel joint and use various types of wood stains.

MATERIALS

- M Nailing It Together, BU6877, \$4.00
- L Woodworking Helper's Guide, BU6879, \$4.00

Woodworking, Level 4 — 5440

You are now closer to becoming an accomplished woodworker. You'll design a woodworking shop and learn more about potential careers. You will use a router, jointer, portable planer and scraper, make mortise, tendon and dovetail joints and compare adhesives, bleaches and strippers, build a wood vehicle, step stool or door knocker.

PROJECT REQUIREMENTS FOR LEVELS 1-4

Each year you should do at least seven of the required and optional activities listed in the manual. In addition, you should take part in at least two leadership experiences each year. To complete the Achievement Program for this level of woodworking, you should complete at least 21 total required and optional activities in three years or less.

MATERIALS

- M Finishing Up, BU6878, \$4.00
- L Woodworking Helper's Guide, BU6879, \$4.00

Woodworking Independent Study — 5499 (see pg 7)

Woodworking Helper's Guide, BU6879, \$4.00

Find a variety of group activities that help youth broaden their understanding of basic woodworking concepts. Each chapter contains ideas to reinforce a life skill. For example, Chapter Three has games that help promote communication.



Environmental and Natural Sciences

Natural Sciences cover the study of our natural environment and the outdoors. Through projects in this area, you investigate the great outdoors and participate in activities that prepare you for learning more about the outdoors and natural ecology.

ENTOMOLOGY

Entomology is an interest of yours if you've ever chased butterflies or caught ladybugs to get a closer look at them. You've been attracted to the largest group of organisms on earth – insects – and the 4-H entomology project may be just for you. Your entomology project leader will help you make learning fun and exciting. Your helper may be a parent, project leader or advisor who enjoys insects. The 4-H *Insectaganza* of Excitement will help you learn more about the world of insects.

Entomology, Level 1 — 6110

In this level, you'll learn about insects, their behavior and their life history. As you learn about the parts of insects, you'll discover different ways of collecting insects, observe their behavior and differences, learn how insects communicate, how they see, about their habits, how to control them and how they move.

PROJECT REQUIREMENTS

This level may take up to three years to complete. You must complete a minimum of seven activities and participate in two entomology project leadership experiences each year (such as giving a demonstration, participating in a judging activity, taking a tour, exhibiting your project, or attending a workshop).

MATERIALS*

- M**Creepy Crawlies, BU6853, \$4.00
- L**.....Entomology Group Helper's Guide, BU6856, \$4.00

Entomology, Level 2 — 6120

You'll have fun assembling proper collecting equipment, locating places where insects can be found, collecting insects at night and learning how to pin and label. You'll also discover how insects use color to communicate, understand what insects eat and see how they develop and grow. You'll build an extractor and a separator, learn how to read insect control labels and explore careers in entomology.

PROJECT REQUIREMENTS

You'll need to complete a minimum of seven activities and participate in at least two leadership experiences, for Levels 1-3, each year to complete this project. The project may take as long as three years to complete.

MATERIALS*

- M**What's Bugging You? BU6854, \$3.00
- L**.....Entomology Group Helper's Guide, BU6856, \$4.00

Entomology, Level 3 — 6130

The activities in Level 3 will challenge you to explore areas of the project you haven't experienced before. You may need additional resources to complete some of the activities. In this level, you'll learn how to raise mealworms with different amounts of food, observe a colony of ants, manipulate bee behavior, organize an insect club, make an identification key that others can use and explore how insects detect different odors. You'll plant a butterfly garden, raise mosquitoes in a rearing chamber and find and prepare a spider's web for display.

PROJECT REQUIREMENTS

Remember, you must complete a minimum of seven activities and two leadership experiences each year (such as giving a demonstration, participating in a judging activity, taking a tour, exhibiting your project or attending a workshop). This project may take as many as three years to complete.

MATERIALS*

- M**Dragon, House, and Other Flies, BU6855, \$3.00
- L**.....Entomology Group Helper's Guide, BU6856, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- M**Cut-out labels for insect collections, 2FM227, Web
- M**Blank entomology labels, 2FM228, Web
- S**Collecting, Mounting and Displaying Insects in 4-H, 5282, \$2.50

Entomology Independent Study — 6199 (see pg 7)**Entomology Helper's Guide, BU6856, \$4.00**

This Guide provides practical tips, 14 group activities and supplementary information. Youth compare the leaping abilities of humans and insects, rear and release monarch butterflies, explore how insects transmit disease, study insect behavior, learn insect words, participate in a night safari and develop an insect promotion campaign.

FORESTRY

Forestry products abound in Montana — from the giant cedars in the west to the pines of the southeast and everything in between. Through the 4-H forestry project, you will discover how important these forests are to our state. You'll also learn about forest ecology and people's reliance on forest products. You'll explore the relationship between trees, people and communities.

**Forestry, Level 1 — 6010**

In this introductory level, you will learn about the different types of trees and tree parts, characteristics of different forests, what forests need to grow and thrive, forestry careers and the many different products and benefits people get from forests.

PROJECT REQUIREMENTS

Each year that you are enrolled in this level, you should complete a minimum of seven activities and three learning experiences as listed in the manual. You should complete the entire level within three years and move on to the next level of learning.

MATERIALS

- M**Follow the Path, BU8038, \$4.00
- L**.....Forestry Helper's Guide, BU8041, \$4.00

Forestry, Level 2 — 6020

In this level, you will take a closer look at the inner-workings of trees, explore forest change, learn about forest health concerns and discover the health benefits that trees have for people. You will also continue to learn about the different types of trees and tree parts, characteristics of different forests, what forests need to grow and thrive and the many products and benefits that people get from forests.

PROJECT REQUIREMENTS

Complete at least six activities each year to complete the project. Complete at least 18 of the Reach for the Canopy activities to complete this Achievement Program and receive a completion certificate.

MATERIALS

- M**Reach for the Canopy, BU8039, \$4.00
- L**.....Forestry Helper's Guide, BU8041, \$4.00

Forestry, Level 3 — 6030

In this final level of the forestry project, you will learn to examine and distinguish different types of trees, learn about tree fruits, learn how to develop a community forest map, learn about genetics, look at forests on a global scale, learn how to care for trees and think about how to conserve forests.

PROJECT REQUIREMENTS

Complete at least six activities each year to complete the project. Complete at least 18 of the Reach for the Canopy activities to complete this Achievement Program and receive a completion certificate.

MATERIALS

- M**Explore the Deep Woods, BU8040, \$4.00
- L**Forestry Helper's Guide, BU8041, \$4.00

Forestry Independent Study — 6099 *(see pg 7)***Forestry Helper's Guide, BU 8041, \$4.00**

This guide provides forest information, group youth activities and practical tips. Using this curriculum, youth develop a life-long appreciation for forests.

OUTDOOR ADVENTURES

Outdoor Adventure helps youth experience the fun and excitement of the outdoors as they progress from day hikes to overnight camping trips to extended backpacking expeditions. The projects feature experiences related to food, shelter, "Leave No Trace" ethics, safety, navigating, equipment and camp management. Youth and adults can learn to preserve and appreciate the out-of-doors as they experience Montana's abundant natural resources. This is a great club project for a group of youth and adults who want to learn more about teamwork and responsibility as they plan their adventures.

Hiking Trails, Level 1 — 6510

Youth will learn about shelter selection, "Leave No Trace" camping skills, outdoor cooking, environmental awareness and appreciation.

PROJECT REQUIREMENTS

Complete at least six activities each year. It is recommended that you complete two activities in Chapter 1 before heading out on your first short 1-2 hour day hike; two activities in Chapter 2 before doing a half-day hike; and two activities including the Leave No Trace Activity in Chapter 3 and 4 before hitting the trail for a full-day hike.

MATERIALS

- M**Hiking Trails, BU8043, \$4.00
- L**Outdoor Adventure Helper's Guide, BU8046, \$4.00

Camping Adventures, Level 2 — 6520

In Level 2, youth will experience planning and taking a day-long hiking trip in a more remote area. Youth will also learn about proper clothing needs, what to pack in a daypack, how to read topographic maps and new orienteering skills.

PROJECT REQUIREMENTS

Complete at least six activities each year. Do at least 10 of the Camping Adventures activities and 10 Reach the Peak activities to complete this achievement program and receive a completion certificate.

MATERIALS

- M**Camping Adventures, BU8044, \$4.00
- L**Outdoor Adventures Helper's Guide, BU8046, \$4.00

Backpacking Expeditions, Level 3 — 6530

Level 3 focuses on being on the trail overnight. Youth will consider clothing needs and learn how to set up tents and use backcountry stoves safely. They will also learn about basic nutritional needs, menu planning, personal hygiene and basic first aid.

PROJECT REQUIREMENTS

Complete at least six activities each year. Before you go backpacking complete at least two activities in Chapter 1, including Gathering Group Gear, complete Food for Thought in Chapter 2; complete the Leave No Trace in Your Place activity in Chapter 3; and complete all the activities in Chapter 4. Complete at least 20 of the Backpacking Expeditions and Reach the Peak activities within three years to complete this achievement program and receive a completion certificate.

MATERIALS

- M**Backpacking Expeditions, BU8045, \$4.00
- L**Outdoor Adventure Helper's Guide, BU8046, \$4.00

Outdoor Adventures Independent Study — 6599

(see pg 7)

Outdoor Adventure Helper's Guide, BU8046, \$4.00

Facilitates the teaching of the three levels of the Outdoor Adventures curriculum. Activities include risk management, the role of a leader, trip planning, health care planning, menu planning, Leave No Trace, camping ethics, adapting programs to special needs populations and evaluation of programs.

SHOOTING SPORTS

To enroll in 4-H shooting sports, youth must be nine years old by Oct. 1, of the current 4-H year. The only exception is the BB Safety course which is open to those turning 8 years old by Oct. 1 of the current 4-H year and Cowboy Action Shooting which requires that 4-H members turn 12 years old by Oct. 1 of the current 4-H year.

Shooting Sports is a safe, fun and challenging activity that can become a lifelong passion to be shared with the entire family. The safe and responsible use of firearms and archery equipment is the primary focus of the 4-H Shooting Sports program. Members will improve their marksmanship skills, have the opportunity to compete, and learn self-discipline and personal responsibility. All 4-H shooting sports leaders must attend a state training workshop and become certified in their shooting discipline before serving as project leaders. Some counties may have further requirements depending on shooting discipline. It is strongly encouraged, and required in some counties, that a parent, guardian or other responsible adult be willing to attend project meetings with the 4-H member. There is opportunity for practice under the watchful eye of trained leaders who have the final say in safety matters and the behavior of the youth enrolled. Keeping current record books is required of all members. Check with your county Extension office for further requirements.

All 4-H Shooting Sports curriculum is only to be used by a 4-H member enrolled in County Shooting Sports programs led by a 4-H certified Shooting Sports leader. No Shooting Sports projects that involve firearms, airguns or archery equipment may be taken independently without a certified leader.

Pistol — 6210

In this project, youth will learn safety and marksmanship skills when using a pistol. Sight alignment and sight picture will be stressed as will trigger control, proper stance and consistent shooting. Shooting is done off a rest and continues into offhand as skills improve.

PROJECT REQUIREMENTS

Members must turn 9 years old by Oct. 1 of the current 4-H year.

MATERIALS

- M**4-H Pistol Member Record Book, 4H753, \$6.50
- L**4-H Pistol Discipline Manual is presented at the state 4-H shooting sports workshops.

Rifle — 6220

Members of this project may use BB guns, pellet rifles or .22 rifles depending on the programs offered in their county. Regardless of equipment, the fundamentals of rifle shooting remain the same; sight alignment, sight picture, trigger control, breathing and proper stance.

PROJECT REQUIREMENTS

Members must turn 9 years old by Oct. 1 of the current 4-H year. Some counties offering advanced projects may have further age guidelines.

MATERIALS

- M**4-H Rifle Member Record Book, 4H750, \$6.50
- L**4-H Rifle Discipline Manual is presented at the state 4-H shooting sports workshops.

Archery — 6230

The 4-H archery project teaches proper archery techniques regardless of bow type. Members may shoot a recurve or compound bow and further divisions include the additions of sights and other equipment. The county 4-H leader and county Extension Agent will assist youth in the type of equipment that is appropriate for the age and stature of the 4-H member.

PROJECT REQUIREMENTS

Members must turn 9 years old by Oct. 1 of the current 4-H year. Check with your County Extension Office for further requirements.

MATERIALS

- M**4-H Archery Member Record Book, 4H751, \$6.50
- L**4-H Archery Discipline Manual is presented at the state 4-H shooting sports workshops.

Shotgun — 6240

Members of this project will learn basic through advanced skills in trap, skeet and sporting clay shooting depending on the facilities available in their county. As with all 4-H shooting sports projects, safety is a primary emphasis as is self-improvement. Members will also learn the types of shot, gauges, shooting techniques and the rules of competition.

PROJECT REQUIREMENTS

Members must turn 9 years old by Oct. 1 of the current 4-H year. Some counties may have further age guidelines and the county 4-H leader and county Extension Agent will determine the appropriateness of this project for members based on the age and stature of the 4-H member.

MATERIALS

- M**4-H Shotgun Member Record Book, 4H752, \$6.50
- L**4-H Shotgun Discipline Manual is presented at the state 4-H shooting sports workshops.

Muzzle Loading — 6250

The 4-H muzzle loading project will teach the differences in use between black powder or black powder substitutes and smokeless powder. Members will not only improve in marksmanship skills, but will also learn the proper handling techniques necessary for the safe use of muzzle loading firearms. Depending on the county's program, cap and ball revolvers may be included and if used in the 4-H Cowboy Action Shooting Project, a 4-H certified muzzle loading instructor must be present. Most projects also include inline muzzle loaders as well as traditional muzzle loaders.

PROJECT REQUIREMENTS

Members must turn 9 years old by Oct. 1 of the current 4-H year. Some counties may have further age guidelines and the county 4-H leader and county Extension Agent will determine the appropriateness of this project for members based on the age and stature of the 4-H member.

MATERIALS

- M**No member project book
- L**4-H Shotgun Discipline Manual is presented at the state 4-H shooting sports workshops.

Hunting — 6260

The 4-H hunting project includes sections focused on firearm and bow safety, but also teaches 4-H members conservation, wildlife habitat requirements, tracking, stalking skills, orientation, outdoor survival and much more. This project can be expanded into almost any aspect of wildlife management and can be very valuable to anyone spending time in the outdoors.

PROJECT REQUIREMENTS

Members must have turned 9 by Oct. 1 of the current 4-H year.

MATERIALS

- M**No member project book
- L**4-H Hunting Discipline Manual is presented at the state 4-H shooting sports workshops.

Montana 4-H Western Heritage Project (Cowboy Action Shooting) — 6270

This project includes 4-H Cowboy Action Shooting and more. Members will learn about the history of 19th century firearms, period correct frontier clothing, hats, boots, holsters and the true lifestyles of those who lived in the Old West from many diverse walks of life. Some members may be interested in becoming Old West re-enactors while others might focus mainly on the shooting aspects of the project – or both. Firearm safety and responsible behavior is stressed throughout the project.

PROJECT REQUIREMENTS

Members must turn 12 years old by Oct. 1 of the current 4-H year. Some counties may have further age guidelines and the county 4-H leader and county Extension Agent will determine the appropriateness of this project for members based on the age and stature of the 4-H member, including the use of a project eligibility assessment test. Each member's permission to participate rests with the certified 4-H instructor and the county Extension Agent.

MATERIALS

- L..... Montana 4-H Western Heritage Project Manual, 5323, \$25.00 (full color spiral bound field edition)
- L..... Montana 4-H Western Heritage Project Manual, 5323, \$25.00 (full color soft cover edition)
- L..... Montana 4-H Western Heritage Project Manual, 5323, \$45.00 (full color hardcover coffee table edition)
- L..... Montana 4-H Western Heritage Project Manual, 5323, \$99.00 (full color special hardcover edition with personalized interior pages, gift box and accessories)
- L..... 4-H Cowboy Action Shooting Discipline Manual is presented at the state 4-H shooting sports workshops.

Shooting Sports Independent Study — 6299 *(see pg 7)*

Any independent study project in 4-H shooting sports that involves firearms or archery gear must be under the supervision of a certified 4-H instructor trained in each discipline. At home independent study projects may be conducted without an instructor if they are limited to posters, clothing or other educational exhibits that do not include firearms or archery gear.

SPORT FISHING

Sport Fishing is a project made for Montana. After all, a river runs through it! In this project, you'll discover that it is about more than just fishing. You will learn how to make your own fishing tackle, experience the world of aquatic ecology, explore the relationship between fish, people and the environment. You'll also learn about casting methods, how to decide on the proper tackle and much more.

Sport Fishing, Level 1 — 6910

Let the adventure begin! In this level, you will learn about tackle, different casting methods and how your actions affect the fishing environment, as you improve your fishing skills.

PROJECT REQUIREMENTS

To complete this level, you will need to complete a minimum of 6 activities in the "Take the Bait" achievement program. You must also participate in three additional learning activities, such as giving a demonstration, exhibiting at the fair, visiting a tackle shop or other activities to expand your knowledge.

MATERIALS

- M..... Take the Bait, BU7598, \$4.00
- L..... Fishing for Adventure Helper's Guide, BU7601, \$4.00

Sport Fishing, Level 2 — 6920

You'll expand your horizons and learn even more about fishing, aquatic ecology, knot tying, different types of casting methods, characteristics of fish and how to prepare a fish meal for your family. You'll also better understand the importance of fishing regulations.

PROJECT REQUIREMENTS

To complete this project, you must do a minimum of six activities in the manual as well as participate in at least three additional learning experiences. (See project book for examples.)

MATERIALS

- M..... Reel in the Fun, BU7599, \$4.00
- L..... Fishing for Adventure Helper's Guide, BU7601, \$4.00

Sport Fishing, Level 3 — 6930

In this project, you will go fishing (of course) but you will also learn how to determine the age of fish, disassemble and reassemble a fishing reel, make artificial lures and flies, modify fishing equipment, design and craft a lure and collect and identify aquatic insects.

PROJECT REQUIREMENTS

To complete this project, you must do a minimum of six activities in the manual as well as participate in at least three additional learning experiences. (See project book for examples.)

MATERIALS

- M..... Cast Into the Future, BU7600, \$4.00
- L..... Fishing for Adventure Helper's Guide, BU7601, \$4.00

Sport Fishing Independent Study — 6999 *(see pg 7)***Fishing for Adventure Helper's Guide, BU7601, \$4.00**

Youth work to identify fish characteristics, plan the club year, design a fish print shirt, powder paint a jig head, make a plastic worm, tie knots, complete a boat safety checklist, plan and conduct a fishing trip, play Perch Bingo, organize a sportfishing quiz bowl and conduct a fishing skillathon.

WILDLIFE

This project series will lead youth through a study focused on animal habitat, define what Wildlife Management is, provide youth with a look at ecosystems and challenge them to think about wildlife and people. There are projects, activities and suggested experiments to complete in each level. In addition, the Montana 4-H Wildlife and Habitat Education Program (WHEP) offers youth the opportunity to learn about two of Montana's greatest resources: wildlife and wildlife habitat. Adults and youth can choose to take the WHEP project as an Independent Study. They could also take the Montana study as a supplement to any of the three levels.

Wildlife Conservation 1 — 6310

Beginner - This curriculum is the first in a series of three. This manual describes what wildlife conservation is about; the history of wildlife conservation in the United States, including the tale of bison and passenger pigeons; and the values of wildlife to people, including the wealth of services from nature. Although the story in the three Wildlife Conservation manuals is more complete if followed in sequence, they can be used in any order.

PROJECT REQUIREMENTS

Create a wildlife display, a diorama, a wildlife exhibit or write an essay on any of the topics in the manual for this level. Complete a minimum of five activities and experiments. You may also add one of the supplemental books and study that in depth as part of this series. This project may be taken for two years.

MATERIALS*

- M** Wildlife Conservation I: The Worth of Wild Roots, 4H4510, \$6.00
- L** Not available

Wildlife Conservation 2 — 6311

Intermediate - Wildlife Conservation II speaks through wildlife habitat, how size and shape of habitat patches affect various wildlife species, what makes wildlife populations increase or decrease and how wildlife survives within natural communities and ecosystems. There are several options to learn about wildlife and to become involved in helping wildlife.

PROJECT REQUIREMENTS

Create a wildlife display, a diorama, a wildlife exhibit or write an essay on any of the topics in the manual for this level. Complete a minimum of five activities and experiments. You may also add one of the supplemental books and study that in depth as part of this series. This project may be taken for two years.

MATERIALS*

- M** Wildlife Conservation II: Living Wild in an Ecosystem, 4H4520, \$6.00
- L** Not available

Wildlife Conservation 3 — 6312

Advanced - Wildlife Conservation III ties concepts from all three manuals in the series together. It deals with the interface between people and wildlife, including why and how we manage wildlife and the agencies responsible. Threatened and endangered species, hunting, wildlife damage management, invasive species and related topics are included.

PROJECT REQUIREMENTS

Create a wildlife display, a diorama, a wildlife exhibit or write an essay on any of the topics in the manual for this level. Complete a minimum of five activities and experiments. You may also add one of the supplemental books and study that in depth as part of this series. This project may be taken for two years.

MATERIALS*

- M** Wildlife Conservation III: Managing in a World with You and Me, 4H4530, \$6.00
- L** No Leader Manual for Wildlife Conservation

*** ADDITIONAL PROJECT MATERIALS**

- L** Montana WHEP Level 3 Manual, 5313
(Available for check out from State 4-H Office)
- L** Wildlife Habitat Judging Manual, 5265, Web only
- L** Water Quality, 5304, \$5.00
- S** Furbearers of Montana, 5257, \$1.00
- S** Montana Non-Game Animals, 5216, \$1.00
- S** Montana Big-Game Animals, 5217, \$1.00
- S** Owls of Montana, 5232, \$1.00
- S** Montana's Birds of Prey, 5233, \$1.00
- S** Montana's Upland Game Birds, 5234, \$1.00
- S** Waterfowl, 5235, \$1.00
- S** Woodland Wildlife, 5305, \$2.00
- S** Outdoor Activities, 5272, \$2.00
- S** Wildlife Identification Pocket Guide, 4385, \$2.00

Wildlife Independent Study—6399 (see pg 7)

There are a variety of resources and supplemental information available for Independent Study of Montana Wildlife

WIND ENERGY**Power of the Wind — 6610**

Youth will learn how the energy of the wind is transferred to machines to do work for us. Youth will also learn to think as an engineer and design and improve projects. Youth will use engineering skills to perfect their own designs. Some of the activities include a wind powered boat, making a Beaufort scale, observing and measuring wind and creating and testing a pinwheel.

PROJECT REQUIREMENTS

This project will take up to one year to complete. There are five chapters in the Youth Guide that contain activities and journaling related to each chapter. Youth must complete a minimum of four chapters and activities that go with the chapter to complete the project. Research could be done on wind energy in Montana as an Independent Study Project.

MATERIALS

- M** Power of the Wind Youth Guide, BU8383, \$5.00
- L** Power of the Wind Facilitator Guide, BU8384, \$5.00

Energy Independent Study—6699 (see pg 7)**Power of the Wind Facilitator Guide, 8384 -, \$5.00**

The Power of the Wind activities involve young people in the engineering design process as they learn about the wind and its uses.



Family and Consumer Sciences

Family and Consumer Sciences projects help teach the necessary skills to make informed decisions and wise consumer choices. These projects teach everyday life skills — from clothing consumerism and construction to quilting and from home environments to child care.

CHILD DEVELOPMENT

What can you do to help yourself and others handle emergencies, develop home-alone skills, stay healthy, and relate appropriately to others? All of these issues are covered in the exciting child development curriculum, *Kids on the Grow*. When you are ready, you may want to go to the Babysitting series.

Child Development, Level 1 — 1010

In this project, you'll do fun activities: make a "Bloomin' Bag", create a special learning place for yourself, make your own clock and become a toy inspector.

PROJECT REQUIREMENTS:

To complete this level each year, you should do at least seven of the activities. To complete the Achievement Program for this level of the project, you should complete all eight of the required activities and five of the optional activities in three years or less.

MATERIALS

- M Growing On My Own, BU8075, \$4.00
- L Child Development Helper's Guide, BU8078, \$4.00

Child Development, Level 2 — 1020

In this level, you will learn about self-care, select toys appropriate for different age groups, create a circle of friends, make a family tree, develop family rules, prepare healthy meals and check out your home for safety hazards.

PROJECT REQUIREMENTS

To complete this level each year, you should do at least seven of the activities. To complete the Achievement Program for this level of the project, you should complete all 14 of the required activities and seven of the optional activities in three years or less.

MATERIALS

- M Growing With Others, BU8076, \$4.00
- L Child Development Helper's Guide, BU8078, \$4.00

Child Development, Level 3 — 1030

You'll learn about potential careers in the child development field, do a profile of families in your community, participate in an intergenerational community service project, gain experience as a teacher or coach, develop a car-safe campaign and more.

PROJECT REQUIREMENTS

To complete this level each year, you should do at least seven of the activities. To complete the Achievement Program for this level of the project, you should complete all 14 of the required activities and seven of the optional activities in three years or less.

MATERIALS

- M Growing in Communities, BU8077, \$4.00
- L Child Development Helper's Guide, BU8078, \$4.00

Child Development Independent Study — 1099 (see pg 7)

Child Development Helper's Guide, BU8078, \$4.00

This guide features nine engaging group activities, encouraging work with younger kids in after-school programs, day care centers and day camps as well as within their own 4-H club.

Babysitting

This series was developed by the Army Child and Youth Services and National 4-H outreach efforts. It is comprised of two guides - an Instructor Guide and a Student Guide. The Babysitting curriculum familiarizes teens with the responsibilities of babysitting and provides the necessary information for them to become capable, caring, trustworthy and competent sitters. They will learn how to keep children safe and happy, talk with parents and adults, make responsible decisions and handle emergencies. Youth will also engage in hands-on activities, learn from guest speakers, do role plays, use their creativity and have fun while learning.

Babysitting — 1040

There are five chapter lessons in the babysitting member guide that include safety, First Aid and CPR, child development, nutrition, entertaining children and the business of babysitting. Each lesson contains four to five areas of study/activity. Babysitting curricula is based on character traits including trustworthiness, respect, responsibility, fairness, caring and citizenship. This series should be combined with Certified First Aid and CPR instruction to complete the babysitting course requirements.

PROJECT REQUIREMENTS

A member could work on this book for two years but it is recommended that they finish the book in one year to become a certified babysitter. To be certified, he/she would also need certification from the Red Cross or another group in First Aid and CPR.

MATERIALS

- M I Have What It Takes to be Your Teen Babysitter Guide and CD, 5318, \$ 6.50
- L Babysitting Instructor Guide, 5319, \$10.00

Child Development Independent Study — 1099 (see pg 7)

Family Adventures

Family Adventures is a special kind of project in Montana 4-H. Your family, no matter how you define it, will fit this project. So, ask everyone in your family if they will join you. This doesn't mean you cannot do the project unless your whole family takes part, but do try to get everyone you can to participate.

Family Adventures — 1310

PROJECT REQUIREMENTS

Fourteen "family adventures" are included in this project. Each family is encouraged to select seven of the adventures in order to complete the project. The adventures include: Cooking Together, Stories, Family Fun Time, Outdoor Adventures, Photo Stories, Fire Safety, Energy Adventures, About the Flag, Shopping Adventures, Family Tree, Family Rituals, Volunteering and Creating your own Adventure. You can always do more if wanted.

MATERIALS

- M** Family Adventures, 5302, \$5.00
- L** Not available

Family Adventures Independent Study — 1399 *(see pg 7)*

HOME ENVIRONMENT

Intermediate – Advanced. Design Decisions is used for all 4 levels of project completion. Develop a designer's touch by navigating through four exciting sections. In Level 1, youth will learn and apply basic design concepts to walls, windows and floors. Level 2 explores how to design with style as youth plan, select and care for furniture, fabrics and decorative items for a room. Level 3 is all about accessories and adding personality and interest to a room. Level 4 challenges youth to create a home that is healthy, energy efficient, and conserves natural resources.

Home Environment, Level 1 — 1510

Youth will learn and apply basic design concepts to walls, windows and floors. Youth interested in a new color scheme, furnishings and accessories for their own rooms or for other projects will love this level. Design Decisions takes youth step-by-step through the design process.

PROJECT REQUIREMENTS

Finish a minimum of one activity in two sections to complete the project. The level may be completed in one year, but can be done in two.

MATERIALS

- M** Design Decisions: The Basic Touch, Level 1, 4H1600, \$7.50 (limited quantity of printed copies) CD's available
- L** Not available

Home Environment, Level 2 — 1512

Explore how to design with style as you plan, select and care for furniture, fabrics and decorative items for a room.

PROJECT REQUIREMENTS

Finish a minimum of one activity in 3 sections per year to complete the project. Youth may stay involved in this level for up to three years.

MATERIALS

- M** Design Decisions: The Distinctive Touch, Level 2, 4H1600, \$7.50 (limited quantity of printed copies) CD's available
- L** Not available

Home Environment, Level 3 — 1513

In this level, you will learn about accessories and adding personality and interest to a room.

PROJECT REQUIREMENTS

Complete all four sections of The Finishing Touch, and at least one activity per section.

MATERIALS

- M** Design Decisions: The Finishing Touch, Level 3, 4H1600, \$7.50 (limited quantity of printed copies) CD's available
- L** Not Available

Home Environment, Level 4 — 1514

This level will challenge youth to create a home that is healthy, energy efficient and conserves natural resources. Explore career ideas, community service, safety tips and Internet resources.

PROJECT REQUIREMENTS

Each of six sections has activities that you can complete. Choose up to three sections you are interested in and complete a minimum of one of the activities per section to complete this project level. The Environmental Touch can be taken as a project for three years.

MATERIALS

- M** Design Decisions: The Finishing Touch, Level 4, 4H1600, \$7.50 (limited quantity of printed copies) CD's available
- L** Not Available

Home Environment Independent Study — 1599 *(see pg 7)*

SEWING AND TEXTILES

Sewing introduces you to the diverse world of clothing, sewing and consumerism and includes two introductory learning levels and an advanced level. This project will help you explore the world of sewing and textiles while having fun and learning about yourself. You'll need to keep your records up-to-date in this project like you do in all other 4-H projects.

Exploring Sewing 1 — 1110

In this level, you will choose fabrics and trims that are unique, make simple clothes and accessories to wear and learn how to use a sewing machine and sewing tools correctly. You will also construct a sewing tool kit and complete exciting games, greeting cards and puzzles.

PROJECT REQUIREMENTS

To complete this project you will learn parts of the sewing machine, how to properly thread and operate the machine as well as selecting and using sewing equipment appropriately. You will construct three or more items in the project book and give a sewing demonstration. Youth will be encouraged to model or exhibit sewn items at a fashion revue, achievement day or fair.

MATERIALS:

- M** "Sew" Much More Fun, Level 1, 100Q1B, \$5.00
- M** Let's Sew, MI7198, \$10.00
- M** Overlock Sewing, L3188, \$3.00
- L** 4-H Fabrics and Fashion (CD ROM), 50113BC, \$20.00

Exploring Sewing 2 — 1120

In this project you will learn more about fabrics and patterns. You construct simple projects such as a patchwork pillow, apron, pants or a shirt, as well as exploring your clothes closet, determining your best look and modeling.

PROJECT REQUIREMENTS

You may work in this book for two years, completing two of the sewing projects per year and at least three of the project activities.

MATERIALS

- M** "Sew" Much More Fun, Level 2, 100Q2B, \$5.00 (Book), \$7.50 (Book + choice of one pattern), \$2.50 (Each pattern set - pants or shirt)
- M** Let's Sew, MI7198, \$10.00
- M** Overlock Sewing, L3188, \$3.00
- L** 4-H Fabrics and Fashion (CD ROM), 50113BC, \$20.00

Advanced Sewing Skills Level 3-5 — 1140

In this level, you will practice advanced sewing skills and garment construction techniques. Enroll if you and your leader agree that you are ready. Choose projects from the Leader Guide and individualize your goals for Level 3 as you learn new things and practice your skills. Options included in this level will be tailoring techniques for jackets and coats, sewing formal wear, garments with linings, shaping, bound button holes, rolled collars and lapels as well as sewing with challenging fabrics.

PROJECT REQUIREMENTS:

Working with your Extension Agent or Project Leader, identify the skills you would like to learn and set up goals to signify and guide the completion of this project. You can use the project book (You Decide) to help you in deciding your goals and planning your project.

MATERIALS

- M** You Decide! Member's Manual, 5314, \$3.00
- L** Helping Them Decide Leaders Manual, 5315, \$2.00
- L** 4-H Fabrics and Fashion (CD ROM), 50113BC, \$20.00

Sewing/Textiles Independent Study — 1199 (see pg 7)**Knitting**

The 4-H knitting project is designed to teach the basic skills of knitting and then allows you to use creativity in producing articles that will enhance your wardrobe. There are three levels: beginning, intermediate and advanced.

Beginning — 1150 Advanced — 1152
Intermediate — 1151

PROJECT REQUIREMENTS

Check with your County Extension office for appropriate guidelines for project completion and achievement recognition.

MATERIALS

- M** Knitting Made Easy, 0102, \$3.00
- L** Knitting Made Easy (CD-ROM), CD104E, \$6.00

Crochet

The 4-H crochet project is designed to teach you about tools and equipment, choosing materials and working from a plan. The project includes several basic stitches as well as pattern stitches. The two levels in the crochet project are beginning and advanced.

Beginning — 1160 Advanced — 1162
Intermediate — 1161

PROJECT REQUIREMENTS

Check with your County Extension office for appropriate guidelines for project completion and achievement recognition.

MATERIALS

- M** Crochet Made Easy, 0103, \$3.00
- L** Crochet Made Easy (CD-ROM), CD103E, \$6.00

Embroidery

The 4-H embroidery project is designed to encourage creativity and to meet the needs of each individual member. There are two levels: Beginning and Advanced. Embroidery could include, but is not limited to crewel, huck or Swedish weaving and creative stitchery on clothing or other articles.

Beginning — 1170 Advanced — 1172
Intermediate — 1171

PROJECT REQUIREMENTS

Check with your County Extension office for appropriate guidelines for project completion and achievement recognition.

MATERIALS

- M** Embroidery, 2B1195, \$1.00
- L** ABC of Embroidery, 5290, \$1.00

Quilting/Patchwork/Appliqué

This quilting project is designed to teach techniques and skills in making quilted, appliquéd or patch-worked items for home or personal use. Youth choosing to do special projects would complete an Independent Study Project.

Beginning — 1180 Advanced — 1182
Intermediate — 1181

Quilting: Beginner — 1180

Beginning quilting project available to youth that will teach about, "What is quilting and piecing?" It will help them select their fabrics, learn how to cut and stitch the quilt top as well as finishing the quilt. Some basic patterns will be included in this project for them to start on. Both Quilt Quest Blocks 1 and 2 can be used in Intermediate and Advanced Projects.

PROJECT REQUIREMENTS

Complete all seven activities in the book, take part in two learning experiences, complete two leadership activities, and write a project summary.

MATERIALS:

M You Can Quilt!, 499, \$6.50

Quilting: Intermediate — 1181

Youth must finish two projects of their choice each year from the Creative Corners book to complete the project. Youth can print off the book or learn right from the CD. Youth may do more than two projects and could use other patterns included in the project book. This project is designed for completion in two years. Since there is not a leader manual specific to this project, use the self-determined project (pg. 7) to set goals. The Quilt Quest Leaders Guide gives guidance to help youth succeed in their Quilt projects and has additional projects and resources.

PROJECT REQUIREMENTS

Youth must finish two projects of their choice each year in the Block 1 book to complete the project. Youth may do more than two projects and could use other patterns included in the project book. This project is designed for completion in two years. Use the self-determined project to set goals.

MATERIALS*

M Creative Corners Project Block 1 (Quilt Quest), (CD ROM) 4H1320, \$8.50

M Terrific Triangles Project Block 2, 4H1130, \$8.50

M You Decide, 5314, \$3.00, Web

L Quilt Quest Leaders Guide, (CD ROM) 4H1310, \$10.50

Quilting: Advanced — 1182

Terrific Triangles CD includes a wide variety of designs using basic triangles — both half square and quarter square triangles, plus a couple using equilateral triangles. You can print off the book or use right from the CD. Each Block in Quilt Quest increases in skills and mastery of quilting, building upon the previous Project Block.

PROJECT REQUIREMENTS:

Youth must complete two projects of their choice each year in the Terrific Triangles book to complete the project. Youth may do more than two projects and could use other patterns included in the project book. This project is designed for completion in two years. Use the self-determined project (pg. 6) to set goals.

MATERIALS*

..... M Creative Corners Project Block 1 (Quilt Quest), (CD ROM) 4H1320, \$8.50

M Terrific Triangles Project Block 2, 4H1130, \$8.50

M You Decide, 5314, \$3.00, Web

L Quilt Quest Leaders Guide, (CD ROM) 4H1310, \$10.50

***ADDITIONAL PROJECT MATERIALS**

M Quilting, 2089A, \$.50 (while supplies last)

S ABC of Strip Piecing and Strip Quilting, 3181, \$2.00

S Patchwork, 2012A, \$.50 (while supplies last)

Sewing/Textiles Independent Study — 1199 (see pg 7)**Plant Sciences**

Plant Sciences projects are designed to teach how plants and soils are exciting and interesting. You will learn to identify plants, develop skills in caring for and using plants, recognize undesirable and poisonous plants, grow crops properly, harvest and process crops and to use them or market them. You will also learn about the relationships between all phases of natural resource management including wildlife, range, forestry, water and soils and develop an appreciative attitude toward sound management of natural resources and a broad understanding of relationships between agriculture and nature. You will also be able to seek out the scientific principles of plant growth and develop an interest in further work or careers.

CROP SCIENCE**Wheat Grower's Helper — 4010**

Learn to run germination tests, spend at least 20 hours helping with wheat production and collect and mount specimens of wheat plants at different stages of growth.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Montana Wheat Projects, 2B0358, \$2.00

Junior Wheat Grower — 4011

Learn how to take soil samples for fertilizer recommendations and grow varieties of wheat, study weeds, diseases and insect problems. You will also tour grain elevators and assist with growing and marketing a crop of wheat.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Montana Wheat Projects, 2B0358, \$2.00

Senior Wheat Grower — 4012

Members must be 14 years old or older to participate in this project. You will grow 30 or more acres of commercial wheat or grow 10 to 25 acres of certified wheat, while keeping detailed records. You will also market your wheat, prepare fair exhibits, visit research centers and learn to estimate wheat yields using computers.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Montana Wheat Projects, 2B0358, \$2.00

Barley Grower's Helper — 4030

You will conduct germination tests, spend 20 hours helping with barley production, and collect and mount specimens of barley plants at different stages of growth.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Barley Project, 5241, \$2.25

Junior Barley Grower — 4031

You will take soil samples, make fertilizer recommendations, plant a variety test plot and study a weed, insect or disease. You will also tour an elevator, cleaning plant or seed house, prepare a fair exhibit, assist with growing a crop of barley and promote the grain industry through marketing.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Barley Project, 5241, \$2.25

Senior Barley Grower — 4032

In this project you will develop a rental agreement, grow five to 30 acres of barley while keeping detailed records, market your crop, prepare an exhibit, visit a research center, make a field estimate and attend a program related to barley.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Barley Project, 5241, \$2.25

Crop Science Independent Study — 4099 (see pg 7)**GARDENING**

Gardening is a fun and rewarding project where you can reap the benefits of your hard work—and satisfy your appetite, too. The broader field of horticulture includes gardening and a whole lot more. In these projects, you will learn about growing and caring for all kinds of plants—vegetables, flowers and more.

Gardening, Level 1 — 4210

In this level, you will learn that you can garden just about anywhere. You don't need to live in the country or have a big yard to be a gardener. Learn how to plan out different gardens, use different planting techniques and how to germinate seeds, identify parts of plants, care for your plants, harvest your results, explore careers in gardening and much more!

PROJECT REQUIREMENTS

You should do at least four required activities, three challenge activities, and participate in at least three learning experiences (such as giving a demonstration, participating in a judging activity, taking a tour, exhibiting your project or attending a workshop) each year to complete this project. You may take as long as three years to complete this level.

MATERIALS

M See Them Sprout, BU7162, \$4.00

L Gardening Helper's Guide, BU7156, \$4.00

Gardening, Level 2 — 4220

Explore new ways to grow plants both indoors and out. You'll have fun learning about hydroponics, air layering, transplanting and flower arranging. You'll also learn about controlling pests, testing soil and using mulches.

PROJECT REQUIREMENTS

You should do at least four required activities, three challenge activities and participate in at least three learning experiences each year to complete this project. You may take as long as three years to complete this level.

MATERIALS

M Branching Out, BU7154, \$4.00

L Gardening Helper's Guide, BU7156, \$4.00

Gardening, Level 3 — 4230

In this level, you will have many opportunities to develop your leadership skills, organizational abilities and presentation skills as you share your knowledge and experiences. You can conduct a gardening workshop, teach younger members how to grow plants or arrange a tour for your group. You can even market your horticulture products or work as an intern in a horticulture business. You'll also learn about growing plants in a cold frame, how to landscape, design some plant experiments, grow herbs, force bulbs and learn about organic and chemical fertilizers.

PROJECT REQUIREMENTS

You should do at least four required activities, three challenge activities and participate in at least three of the learning experiences to complete the project. You may take as long as three years to complete this level.

MATERIALS

M Digging Deeper, BU7155, \$4.00

L Gardening Helper's Guide, BU7156, \$4.00

Gardening Independent Study — 4299 (see pg 7)**4-H Gardening Helper's Guide, BU7156, \$4.00**

This guide provides activities, ideas and content to help support youth growth and learning. Included are easy-to-use reference tables and group activities.

RANGE SCIENCE MANAGEMENT

Range Science Management gives you a new perspective on the area around you. Have you ever been driving with your parents or friends from one distant place to another and wondered, "What's this desolate land good for?" Rangelands are primarily used for grazing, not farming and they produce many of the things that support our modern way of life. You will learn about plants, water, wildlife, the importance of fire, succession and history of land. You are encouraged to take field trips, project tours, attend camps and get involved with other activities related to Range Science. There are two Level 1 books, first *Home on the Range* and the *Youth Range Manual*. *Home on the Range* is a good curricula book for classrooms of after-school use. *Youth Ranger* is a three level series.

Range, Level 1 — 6410

You will learn what constitutes range, why range is important, soil, water and plant relationship, plant anatomy and kinds of range plants. In doing this, you will develop a "Plant Anatomy Reference Book."

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Youth Range Manual, Level 1, 2B1278, \$3.00

M Home on Range, Level 1, 5311, \$5.00

Range, Level 2 — 6420

You will begin a plant collection, including grasses, grass-like plants, forbs and shrubs. You will make a plant press, learn to identify and mount plants and additional anatomy.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Youth Range Manual, Level 2, 2B1308, \$3.00

M Montana Range Plant Labels, 2FM203, Web

Range, Level 3 — 6430

You will increase your plant collection and learn advanced management principles: soil texture and its effect on plant growth, range site identification and condition and overgrazing effects.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Youth Range Manual, Level 3, 2B1325, \$3.00

M Montana Range Plant Labels, 2FM203, Web

Range, Level 4 — 6440

You will learn to identify range sites, understand range condition and how overgrazing affects plants. You will develop a ranch plan applying the range management principles you have learned through the four previous years of range management.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Youth Range Manual, Level 4, EB3, \$4.00

Range, Level 5 — 6450

In Level 5 you'll apply knowledge gained in Levels 1-4, including improving rangeland management or improving public understanding of range management. Level 5 is designed to be a self-determined range project which expands knowledge beyond the other levels and encourages teaching others.

PROJECT REQUIREMENTS

Contact your project leader or 4-H Extension Agent for more details.

MATERIALS

M Youth Range Manual, Level 5, EB28, \$2.00

Range Science Independent Study — 6499 (see pg 7)

WEED SCIENCE

Weed Science looks at one of the most important environmental problems in Montana. Through the activities in this project, you will develop your knowledge and understanding of agriculture, nature and biodiversity. You'll also develop a broader understanding of the relationship between nature and agriculture and recognize important weeds in Montana. You will also learn how to make a plant press, display and mount weeds and the science of weed control. You'll learn various biological methods for controlling weeds, the beneficial uses for weeds and which weeds you can cook and eat. You will study how weeds use different dispersal methods for propagation, why weeds are such fierce competitors and have the opportunity to instill in others the desire to take an active role in controlling weeds.

Weed Wise, Level 1 — 4110

Beginners will learn about weeds with fun and hands-on activities. You will begin by making a plant press and collecting at least 25 weeds. You'll also learn about how weeds reduce wildlife habitat, develop alternative uses for weeds, learn about weeds in your garden and explore the roots of weeds.

PROJECT REQUIREMENTS

This level includes seven required activities that you must complete before moving on to Level 2. You can work at your own pace, but you should not take more than two years to finish. During the first year, you should complete a minimum of four of these activities. If you enroll in this level for a second year, you must complete the other three activities in the second year without repeating any of the previous activities, although you may add to your weed collection.

MATERIALS*

M Weed Wise, 5292, \$2.00

L Weed Wrangler Helper's Guide, 5298, \$2.00

Weeds on the Move, Level 2 — 4120

You will learn why weeds live where they do and about poisonous plants. You'll also create a map showing the location of two weed species, germination mechanisms and study two different kinds of weed seeds, learn how weeds affect your vegetable garden, how weeds are, "on the move," and the different dispersal methods of weeds. You'll study biological controls of noxious weeds and find out which wild plants are good to eat, ways to cook them and other beneficial uses of weeds.

PROJECT REQUIREMENTS

This level includes nine required activities that you must complete before moving on to Level 3. You can work at your own pace, but you should not take more than two years to finish. During the first year, you should complete a minimum of five of these activities. If you enroll in this level for a second year, you must complete the other four activities in the second year without repeating any of the previous activities.

MATERIALS*

- MWeeds on the Move, 5293, \$2.00
- LWeed Wrangler Helper's Guide, 5298, \$2.00

Weed-n-Seed, Level 3 — 4130

You will learn how weeds impact biodiversity, how weeds impact forage production, how to develop a weed awareness workshop, about joining a weed association and understand how to certify a grower's hay as, "weed-free." You will also learn about careers related to weeds, about plant taxonomy (classification systems), find out about the hazards associated with herbicides and how herbicides work.

PROJECT REQUIREMENTS

This level includes nine required activities that you must complete before moving on to Level 4. You can work at your own pace, but you should not take more than two years to finish. During the first year, you should complete a minimum of five of these activities. If you enroll in this level for a second year, you must complete the other four activities in the second year without repeating any of the previous activities.

MATERIALS*

- MWeed-n-Seed, 5294, \$2.00
- LWeed Wrangler Helper's Guide, 5298, \$2.00

Advanced Weed Science, Level 4 — 4140

To participate in the activities in this advanced level, you must have completed all previous levels. Level 4 is for individual advanced field work related to the study of biological controls of weeds. There are four specific project options in this level.

PROJECT REQUIREMENTS

You should complete one of these projects for each year you enroll in this project. Completing your record book, along with these field manuals, demonstrates that you have completed each project. The projects are:

- Eating Weeds Alive: Bug 'Em to Death! A field manual about using insects as a biological control for weeds.
- Eating Weeds Alive: Moovve Weeds out of Montana! A field manual about using cattle as a biological control for weeds.
- Eating Weeds Alive: Baaad Weeds! A field manual about using sheep as a biological control for weeds.

MATERIALS

- MEating Weeds Alive: Bug 'Em to Death! 5295, \$3.00
- MEating Weeds Alive: Moovve Weeds out of Montana! 5296, \$2.00
- MEating Weeds Alive: Baaad Weeds! 5297, \$2.00

*ADDITIONAL PROJECT MATERIALS

- SWeeds of the West (available in each county Extension office as a reference)
- SPlant Identification Learning Kit (available in each county Extension office)

Weed Science Independent Study — 4199 (see pg 7)



Communication and Expressive Arts

These projects help you develop your skills in communications, the arts and an appreciation for the out-of-doors. From photography and public speaking to outdoor adventures, these projects will enhance your abilities to communicate effectively with others in a variety of media and form positive relationships. Some of these projects can evolve into careers. Most can become lifelong hobbies that enrich one's life.

COMMUNICATIONS

Welcome to Express Yourself! Effective communication drives all aspects of life. This series gives youth skills to increase communication with those around them in all settings: school, family and giving presentations at all levels. If you have a Speakers Bureau or Toastmasters in your community, they might provide additional opportunities for youth to learn from and express themselves in a public setting.

Communications, Level 1 — 0803

Discover how to put together a communication puzzle through nonverbal, verbal and written activities that stretch and strengthen personal communication skills.

PROJECT REQUIREMENTS

Complete seven of the 14 activities the first year and seven the second year to complete this. Youth can stay in the project level for up to two years.

MATERIALS

- M**Picking Up the Pieces, BU8156, \$4.00
- L**Communications Helper's Guide, BU8159, \$4.00
- S**Resource Handbook: Communications Toolkit, MI1560, \$25.00 (while supplies last), Web

Communications Level 2 — 0804

Stimulating activities provide opportunities for youth to practice and gain confidence in communicating in a variety of situations. Watch them unfold as strong communicators while they present oral reasons, plan and present speeches.

PROJECT REQUIREMENTS

Complete seven of 15 activities the first year with eight the second year to complete this project. You can stay in the project level for up to two years.

MATERIALS

- M**Putting It Together, BU8157, \$4.00
- L**Communications Helper's Guide, BU8159, \$4.00
- S**Resource Handbook: Communications Toolkit, MI1560, \$25.00 (while supplies last), Web

Communications Level 3 — 0805

Youth enrich and polish their communication skills and develop a public presence by speaking in public, exploring communication careers by job shadowing. In addition, they write cover letters and resumes.

PROJECT REQUIREMENTS

Complete seven of 14 activities the first year with seven the second year to complete this project. You can stay in the project level for up to two years.

MATERIALS

- M**The Perfect Fit, BU8158, \$4.00
- L**Communications Helper's Guide, BU8159, \$4.00
- L**Resource Handbook: Communications Toolkit, MI1560, \$25.00 (while supplies last), Web

Communications Independent Study — 0898 (see pg 7)**Communication Helper's Guide, BU8159, \$4.00**

Youth reinforce communication concepts as they develop skillathons, play communication games, trace the history of communication technology, plan demonstrations and create advertisements.

COWBOY POETRY

Cowboy Poetry is designed to teach you how to write your own, original poetry. You will learn about the basic rhyme patterns used in most poetry, some of the classic cowboy poems from the old masters, the basics of meter and rhythm and "free verse." This project is designed to provide another way for you to practice your public presentation skills, develop a greater appreciation for local history and everyday life and give you opportunities to write an oral history of your family and your experiences in 4-H. This project is self-paced so that you can learn at your own pace. There are no "levels" in this project and you can re-enroll as often as you would like.

PROJECT REQUIREMENTS

To complete this project, you should be able to set your goals and record your project highlights in your Montana 4-H record forms, write at least three original poems composed of at least four-line stanzas and demonstrate a specific rhyme pattern in your original verse. The member manual also lists a number of other activities you can do in this project to make your experiences rewarding—from performing at local events to locating cowboy poetry in your local library and on the Internet.

Cowboy Poetry — 7400**MATERIALS**

- M**Spurrin' the Words, Member Manual, 5308, \$6.00
- L**Spurring the Words, Leader's Guide, 5309, \$6.00

LEATHERCRAFT

Leathercraft should be of interest to boys and girls who live in rural or urban areas. It complements other projects using leather products, such as the livestock, horse and clothing projects. You can use your creativity to create projects and learn new skills. By participating in this project, you will appreciate the natural beauty and usefulness of leather, learn the principles of good design, learn to be creative, original and strive for quality craftsmanship.

Leathercraft, Level 1 — 7105**PROJECT REQUIREMENTS**

Select and tool two or more articles, practice simple lacing, finishing and assembly of leather articles, keep accurate records of costs and skills gained and share information with others.

Leathercraft, Level 2 — 7110**PROJECT REQUIREMENTS**

You will use basic leather carving tools, practice elementary sketching and design, select, carve and tool two or more articles; share information learned with others and keep accurate records of project costs and experiences.

MATERIALS FOR LEVELS 1 - 2

- M**4-H Leathercraft Member's Manual Levels 1 and 2, CO2001B, \$3.50
- L**4-H Leaders Guide, Adventures in Leathercraft, CO2000, \$3.00

Leathercraft, Level 3 — 7115**PROJECT REQUIREMENTS**

You will select, carve and tool two or more articles, including one or more of the following: inverted carving techniques, beginning dyeing, lining, simple molding and shaping or hand stitching. You will also share information learned and keep accurate records of project costs and experiences.

Leathercraft, Level 4 — 7120**PROJECT REQUIREMENTS**

You will learn how to figure carve and emboss. You will also perfect skills from previous levels, share information and keep accurate records of project costs and experiences.

Leathercraft, Level 5 — 7125**PROJECT REQUIREMENTS**

You will learn about solid color dyeing and shading, peer teaching, leading a class and keeping accurate records of project costs and experiences.

Leathercraft, Level 6 — 7130**PROJECT REQUIREMENTS**

You will learn more about carving, dyeing and shading. You will also select one or more pictures, scenes or portraits to carve, frame or mount the picture and share information with others. You will keep accurate records of project costs and experiences.

Leathercraft, Level 7 — 7135**PROJECT REQUIREMENTS**

You will make or rebuild a saddle, study references on saddle making and share information with others while keeping accurate records of project costs and experiences.

MATERIALS FOR LEVELS 3 - 7

- M**4-H Leathercraft Members Manual Levels 3-7, CO2003C, \$3.00
- L**4-H Leaders Guide, Adventures in Leathercraft, CO2000, \$3.00

Advanced Leathercraft — 7140

Units 8-10 are listed under the advanced category. This project should be carried for more than one year per level, depending on your desired skills and interests.

PROJECT REQUIREMENTS – UNIT 8

You will develop a pattern using stamping tools, create balance in design and color and apply color to stamped designs. You will also tool two or more articles using creative design.

PROJECT REQUIREMENTS – UNIT 9

You will make two or more articles using non-tooled and non-sewn techniques like lacing, braiding, expanding, and sculpting.

PROJECT REQUIREMENTS – UNIT 10

You will learn about selecting the type of leather and patterns for leather projects. You will make two or more items using sewing techniques.

MATERIALS FOR LEVELS 8 - 10

- M**4-H Leathercraft Members Manual Levels 8-10, CO2008, \$2.00
- L**4-H Leaders Guide, Adventures in Leathercraft, CO2000, \$3.00

Leathercraft Independent Study — 7199 (see pg 7)**PHOTOGRAPHY**

Photography provides an interesting activity or project for youth of all ages. Photography introduces you to a useful hobby and a career field; giving you educational guidance as you develop skills in taking and using pictures. You will also gain an appreciation of photography as an art, science and communication tool that will help you to observe and appreciate your surroundings. Photography is an excellent way to record events, ideas and situations in picture form for later use.

Photography, Level 1 — 7010

Focus on equipment basics, learn picture-taking techniques, the concept of lighting and flash, photo composition, approaches, sequencing and evaluating photographs. Learn how to take photos that you want to keep and share with others.

PROJECT REQUIREMENTS

To complete this project, you should explore each of the four Project Areas (equipment, lighting, composition and skill building), take part in two organized project experiences and two leadership/citizenship activities.

MATERIALS

- M**Focus on Photography, Photo 1, \$6.00
- L**Not available

Photography, Level 2 — 7020

In Level 2, you will explore depth of field, aperture and shutter speeds, hard and soft lighting, silhouettes and flash techniques. You'll also learn how to evaluate composition using the Rule of Thirds, Golden Triangle and Golden Rectangle and understand positive and negative space. Other topics include taking candid pictures, adjusting shutter speeds, panning techniques, close-ups and panoramas.

PROJECT REQUIREMENTS

To complete this project, you should explore each of the four Project Areas (equipment, lighting, composition and skill building), take part in two organized project experiences and two leadership/citizenship activities.

MATERIALS

- M**Controlling the Image, Photo 2, \$6.00
- L**Not available

Photography, Level 3 — 7030

Level 3 takes you to the world of wide-angle and telephoto lenses, filters and special film, light meters and different light sources. You will learn to shoot reflections, use framing and viewpoints, still-life, formal and informal portraits, symmetry, patterns, texture, color composition and pictures with a purpose.

PROJECT REQUIREMENTS

To complete this project, you should explore each of the four Project Areas (equipment, lighting, composition and skill building), take part in two organized project experiences and two leadership/citizenship activities.

MATERIALS

- M** Mastering Photography, Photo 3, \$6.00
L Not available

Videography, Level 4 — 7040

This is a digital storytelling project using video cameras. Youth will learn how to use video cameras, a tripod, video tips and how to capture and transfer video footage. Youth will plan and carry out a video project in the form of a family vacation movie, a PSA or a documentary. It is advisable to understand the basics of photography before beginning in this project.

PROJECT REQUIREMENTS

Create a short practice video on a subject of your choice and a longer video that has a script and uses storyboard techniques. This video will demonstrate digital storytelling and follow the rubric requirements in the book.

MATERIALS

- M** Movie Magic, #5325, \$8.00
M Filmmaking Studio Workshop (DVD), #5326, \$12.00, Web
<http://projects.4-hcurriculum.org/curriculum/filmmaking>

Photography Independent Study — 7099 (see pg 7)**THEATRE ARTS**

Welcome to the Imagination in Action theatre arts series. This project allows both youth and adults to express themselves through acting, voice, puppetry and by learning stagecraft skills.

Theatre Arts, Level 1 — 0763

Stand by – In theatre language that tells you to get ready to learn a new skill. This level is a wonderful introduction to the world of theater arts and youth will explore the fascinating world of make believe. Learn how to control character, try clowning around and practice an imaginary Blob Pantomime.

PROJECT REQUIREMENTS

There are 16 activities in Level 1 and youth will need to complete eight to complete the first year. This project can be taken for two years or complete it in one.

MATERIALS

- M** Play the Role! Acting, BU807, \$4.00
L Theater Arts Helper's Guide, Sidecoaching, BU8073, \$4.00

Theatre Arts, Level 2 — 0764

Youth create sound effects, make a variety of puppets, determine their puppet's character and prepare a puppet show. Although acting is the primary subject matter, young people will practice life skills like problem solving, managing feelings and decision making and communicating.

PROJECT REQUIREMENTS

There are 13 activities in this level and youth need to complete seven the first year and six the second year in the project. They can complete all 13 in one year if they choose to.

MATERIALS

- M** Become a Puppeteer, BU8071, \$4.00
L Theater Arts Helper's Guide, Sidecoaching, BU8073, \$4.00

Theatre Arts, Level 3 — 0765

Youth do improvisations, create disguises and design costumes. "It's Music to My Ears" is one of the creative musical activities that youth will try out.

PROJECT REQUIREMENTS

There are 15 activities and youth must complete seven the first year and eight the second. The book can be completed in one year.

MATERIALS

- M** Set the Stage, BU8072, \$4.00
L Theater Arts Helper's Guide, Sidecoaching, BU8073, \$4.00

Theatre Arts Independent Study — 0799 (see pg 7)**Theater Arts Helper's Guide, BU8073, \$4.00**

Facilitate learning throughout this project with "Advice to the Helper," group activities, helpful hints and more.

ARTS AND CRAFTS

Youth will enjoy many artistic experiences and develop skills for a lifetime through activities focusing on elements and principles of art. Children will learn art through cutting and pasting, painting, sculpting, drawing, printing, construction with fibers and other materials. "A Palette of Fun" connects the art experience to careers, culture, science, technology and more. This helper's guide can be used with groups of children in any setting in, out and after school. This guide is for kindergarten through sixth grade youth, and activities can be adapted to work with any grade.

Arts and Crafts — 0771**PROJECT REQUIREMENTS**

This project book is for K-6 grade only and will work well with Cloverbuds. There are six chapters that focus on different media with a variety of art experiences including cutting and pasting, sculpture, printmaking, fibercasts and more. Youth will need to complete two experiences in two media areas per year to complete the project. This project could take three years to complete.

MATERIALS

- L** A Palette of Fun with Arts and Crafts, BU7597, Web only





Leadership and Personal Development

CENTENNIAL PROJECT

This special centennial project celebrates the 100 year anniversary of Montana 4-H. In preparation for the Centennial Celebration in 2012, youth have the opportunity to explore, record, and share the unique, exciting and proud heritage of the 4-H program in their county. The project book gives you tips for preserving and presenting the facts and fun things you discover. This heritage project can be completed as a countywide, club or individual effort and will only be available 2010 – 2011. Opportunities for special recognition and display will acknowledge those groups or individuals successfully completing this project.

PROJECT REQUIREMENTS

Gather information with a goal of completing your project by 2011. You can then share your project display beginning in January of 2012 through a variety of media forms including, but not limited to, photo displays, exhibits, oral histories, biographies, textile arts and more.

Centennial Project — 7230

MATERIALS

- M Learn from the Past: Make the Future Even Better, 5316, \$5.00

CITIZENSHIP

Navigating Citizenship, Level 1/2 — 0806/0807

The 4-H Citizenship Curriculum incorporates several different successful models of civic engagement to educate members about three specific areas: Montana Government, United States Federal Government and Montana Tribal Government. You will learn how to get involved, who's who and how each of us fits into the overall government process. Discover how to become an active citizen when you participate in this project.

PROJECT REQUIREMENTS

There are two units in this project and it can be taken over a three year period. In Level 1 (0806) for middle school youth, they will complete three activities in the Montana Government section and complete the process of writing a bill. They can choose to attend and present their bill at the 4-H Citizenship Seminar held in Helena every two years (must apply through your county). In Level 2 (0807) for high school youth, will complete five activities related to Federal or Tribal Governments and have a choice of applying for the Citizenship Washington Focus trip in Washington D.C. if they are at least 15 years old. In addition, youth will want to take a service learning project and those projects have been added below.

MATERIALS

- M Navigating Citizenship, 806, \$7.50, WEB
- M Agents of Change – Level 1 for Middle School Youth, BU8182, \$4.00
- M Raise Your Voice – Level 2 for High School Youth, BU8183, \$4.00
- L Service Learning Helper's Guide, BU8184, \$4.00

Global Citizenship — 0810

As you discover the world with this 4-H project, you will learn what it means to be a global citizen, find out about other cultures and about cultural exchange programs.

PROJECT REQUIREMENTS

This project can be completed throughout your 4-H career. Level 1: Complete a cultural study and seven activities from Level 1. Level 2: Complete three activities and ask your family to host an international exchange delegate (ages 10+); prepare for and reflect on your experience. Unit 3: Complete three activities and travel with 4-H to another state or country as an exchange delegate (for high school youth, age 14+); prepare for and reflect on your experience.

MATERIALS

- M Passport to Your World, 807, \$7.50, Web
- L No leader book

Interstate Exchange/Hosting — 0811

Interstate Exchanges give you the opportunity to travel and learn about other states within the United States. You must either host a youth from another state or county or stay in another state or county with a youth. This project will allow you to taste other foods and participate in events and activities with 4-H'ers in other states. You will learn about geography, meet other people, have lots of fun traveling and site seeing. The guide below will lead you through the process, help you think about traveling and safety and give you lots of great ideas to implement as you travel.

PROJECT REQUIREMENTS

You must complete a project journal including the areas outlined in the youth guide and plan a project report using a form of media such as TV, radio or newsletter. Guidelines for eligibility in the exchange program are set by counties.

MATERIALS

- M 4-H Interstate Exchange Youth Guide, 5328, \$5.00
- L 4-H Interstate Exchange Recommended Best Practices, 5329, Web

Citizenship Independent Study — 0897 (see pg 7)



LEADERSHIP**Teen Leadership — 8010**

Leadership is an active process, a set of knowledge, attitudes and skills in working with others toward a common goal. Teen Leadership is an opportunity to develop leadership skills and give of yourself to help others. This project is designed to teach teens to be a better leader through educational experiences, service and practice. After enrolling in the Teen Leadership project, you should cooperatively decide on an area of focus with your leader and county agent. You will develop an individualized learning and action plan for leadership development. You will organize the necessary resources, implement your leadership plan, evaluate your outcomes and make changes to improve it. You will truly “learn by doing” as you enhance your leadership competencies.

PROJECT REQUIREMENTS

Must be 13 years of age by Oct. 1 of the current 4-H year, have completed at least one year in 4-H and be enrolled in at least one other 4-H project. All 4-H Ambassadors must enroll in this project

MATERIALS

- M** Ambassador Plan of Action, Web
- M** Guide to Teen Leadership, 5266 , \$4.00, Web
- M** Teen Leadership Project Plan, Web

SERVICE LEARNING**Service Learning, Level 1/2 — 0808/0809**

Learn how to research and identify a topic, create an action plan, carry it out and then celebrate your successes. Recruit others from your club and make it a group project. You’ll be able to apply your skills and knowledge to a real problem in your community or in the world.

PROJECT REQUIREMENTS

To complete Level 1 (0808) for middle school youth or 2 (0809) for high school youth, you will need to do at least seven of the activities from the project books, completing the project within three years. In addition, you need to keep your planning guide current by setting project goals and recording highlights as you go along.

MATERIALS

- M** Agents of Change – Level 1 for Middle School Youth, BU8182, \$4.00
- M** Raise Your Voice – Level 2 for High School Youth, BU8183, \$4.00
- L** Service Learning Helper’s Guide, BU8184, \$4.00

Service Learning Independent Study — 0899 (see pg 7)**Service Learning Helper’s Guide, BU8184, \$4.00**

Find group service learning activities like community mapping, identifying group roles and journaling. It offers advice for mentors seeking to guide youth through enriching learning experiences. Reflective journaling helps leaders explore their personal leadership styles and the value of service.

**BICYCLE**

Bicycle is divided into two levels. You should work with your bicycle project leader in establishing goals. The project will be more worthwhile if several members in the same club are enrolled in this project. You will learn and practice good bicycle safety habits, enjoy bicycling for exercise and learn about the parts of the bicycle and how to maintain it.

Bicycle Level 1 — 5110

Discover the joy of riding a bicycle. You will learn all about safety and how to avoid hazards. Activities you can complete in this project are: gaining control of your bike, learning how to navigate in traffic and doing basic repairs and more!

PROJECT REQUIREMENTS

To complete the project, you must complete a minimum of seven activities each year. This book can be used for two years. Contact your project leader or 4-H Agent for more details.

MATERIALS

- M** Bicycle for Fun, BU8334, \$4.00
- L** Bicycle Helper’s Guide, BU8336, \$4.00

Bicycle Level 2 — 5120

In this unit, you will learn how to do specialized repairs and maintenance. You’ll also learn advanced maneuvers such as emergency handling, efficient gear shifting, and riding safely in adverse conditions. You should also discover how you can advocate for bicycle-friendly communities and turn your cycling knowledge into a career.

PROJECT REQUIREMENTS

To complete the project, you must complete a minimum of seven activities each year and participate in at least two leadership activities, such as giving a demonstration, organizing a group ride, teaching others about bikes or organizing a bike rodeo.

MATERIALS

- M** Wheel’s in Motion, BU8335, \$4.00
- L** Bicycle Helper’s Guide, BU8336, \$4.00

***ADDITIONAL PROJECT MATERIALS**

- S** Don’t Get Stuck: Fix It! DVD, BU8399, \$10.00

Bicycle Independent Study — 5199 (see pg 7)**Bicycle Helper’s Guide, BU8336, \$4.00**

This Guide is designed to provide engaging and fun group activities for cycling enthusiasts. It contains information and activities related to basic bicycle handling, traffic skills and bicycle events and activities the whole group will enjoy.

FOODS AND NUTRITION

Foods and Nutrition will help you appreciate the part food plays in relationships with family and friends. You will also gain a better understanding of the principles of nutrition as they relate to personal appearance, physical fitness and health. As you prepare foods you will become skilled in the planning, purchasing, preparing, and serving of nutritious, appealing and satisfying meals and snacks. Consult your Extension office to determine what is required in your county.



Cooking 101 — 1418

This book is for young people who are just learning to cook and bake. The project covers kitchen and food safety, basic food preparation and nutrition. It includes MyPyramid, microwave cooking, meal time and measuring basics. There are recipes for snacks, side dishes, main dishes, quick breads and desserts. A great project to start with! Foods!

PROJECT REQUIREMENTS:

It may take you two or three years to complete the project. By the time you have completed the project, you will be preparing meals for your family and friends. You have over 50 different recipes to choose from and several learning activities to complete as part of the project. Prepare two to three dishes from each of the recipe sections: snacks, side dishes, breads and desserts. (10-15 dishes total) Complete two learning activities: Explore MyPyramid Activity, Demonstrate your knowledge of safety basics, Experiment: Test for Safety of Microwave Dishes, Experiment: How much Flour will a Measuring Cup Hold? and/or Demonstrate your knowledge of Cooking Basics: Give a demonstration to your leader or at your club. Complete at least one community service activity.

MATERIALS

- M**Cooking 101 Manual, MEO120, \$5.00
- L**.....No Leader Guide, tips for leaders in Member book

Cooking 201 — 1419

Each level becomes more advanced and builds upon the skills learned in 4-H Cooking 101. The project book is organized into sections by the MyPyramid Food Groups. At the beginning of each section, background information is provided to help learn more about the science behind food preparation, the nutritional contribution of each food groups and basic information about preparing foods in the food group. Recipes are included for each food groups. For example, as part of exploring the Milk Group, youth learn how to make a white sauce. This skill is also used in the Meat and Beans Group to make Chicken Rice Casserole; in the Vegetable Group, several recipes use a white sauce as the base for the dish. This project includes outdoor cooking, party planning, yeast breads and many other exciting recipes!

PROJECT REQUIREMENTS

It may take you two or three years to complete the project. By the time you have completed the project, you will be preparing meals for your family and friends. You have over 50 different recipes to choose from and several learning activities to complete as part of the project.

Prepare two to three dishes from each of the recipe sections: Fruit Group, Vegetable Group, Grain Group, Meat and Beans Group, Milk Group and Desserts (10 to 15 dishes total). Give two to three informal demonstrations on food or kitchen safety to your helper, leader or club. Demonstrate your knowledge on Cooking "How To" Basics. Give three to five informal demonstrations to your helper, leader, or club (per year). Complete at least one community service project such as, baking food for a fund-raising bake sale.

MATERIALS

- M**4-H Cooking 201, MEO121, \$5.00
- L**.....No Leader Guide, tips for leaders in member book

Cooking 301 — 1420

The 4-H Cooking 301 project builds on the skills young people learned in 4-H Cooking 101 and 4-H Cooking 201. The project book is organized into sections by the MyPyramid Food Groups. At the beginning of each section, background information is provided to help youth learn more about the science behind food preparation, the nutritional contribution of each food group and basic information about preparing foods in the food groups. Recipes are included for each food group. This curricula includes outdoor cooking, party planning, slow cookers, yeast breads and much, much more!

PROJECT REQUIREMENTS

Prepare two to three dishes from each of the recipe sections: Fruit Group, Vegetable Group, Grain Group, Meat and Beans Group, Milk Group and Desserts (10 to 15 dishes total) Demonstrate your knowledge on cooking or baking techniques by giving three to five "How To" demonstrations to your helper, leader, or club. Suggested topic areas include yeast breads, short cakes, grilled foods and party planning. Complete one or two food science experiments. Complete at least one community service project such as, planning and hosting a holiday party for the elderly or baking cupcakes for a homeless shelter.

MATERIALS

- M**Cooking 301, MEO122, \$5.00
- L**.....No Leader Guide, tips for Leaders in Member Book

NEW! Party Planner – 1421

This project offers an opportunity for youth to develop knowledge and understanding of nutrition, menu planning, safe food handling skills, kitchen equipment safety, consumer skills, fitness, meal and time management and careers related to food and nutrition. The manual can help you have as much fun planning as attending parties and other events. Use this manual as a stepping stone for other ideas and plans.

PROJECT REQUIREMENTS

Party Planner is an intermediate-level food and nutrition project in which 4-H members focus on preparing food for groups. Youth who complete this project learn how to plan, budget and safely prepare foods for large groups. This project, which includes eight activities and eight recipes, can easily be completed in one year.

MATERIALS

- M** Party Planner: A 4-H Guide to Quantity Cooking, OH477, \$6.50
- L** No leader Guide
- S** MyPyramid, www.MyPyramid.gov

Up For the Challenge Lifetime Fitness, Healthy Decisions — 1415

This curriculum was created to address a growing concern about nutrition and health decisions that families are making. Many youth come home and prepare their own food or are acquiring food outside the home. Up for the Challenge provides learning that is specific to a child's individual needs. The lessons include fitness, nutrition and health for kindergarten through high school grades.

PROJECT REQUIREMENTS

Do at least two activities from each chapter of Ready, Set, Goal! Complete two chapters a year for project completion. In addition, youth in grades 5 through 12 should give a demonstration, speech or develop an exhibit or display to complete the project. This book could be completed in 3 to 4 years.

MATERIALS

- M** Ready, Set, Goal: Up for the Challenge, My Journey to Fitness Youth Guide, 10400A, \$6.00
- L** Up for a Challenge, Lifetime Fitness, Healthy Decisions, 5317, \$14.00

ADDITIONAL PROJECT MATERIALS

- S** Fast Foods Project Leaders Manual, NE4H5000, \$12.50
- S** Rising to the Occasion, WFP031, \$4.00

Food Independent Study — 1499 *(see pg 7)*



Other Projects

CLOVERBUDS

Montana 4-H includes a special program for youth six to eight years old called Cloverbuds. Youngsters in the Cloverbud project work with other children on selected 4-H activities from a structured curriculum that is fun, hands-on and discovery-oriented. Youth of this age group enroll **ONLY** in this project and all activities are non-competitive. Through Cloverbuds, children can develop age-appropriate skills and abilities. Guidelines for this project are different from those of the traditional 4-H program. The agent and volunteer manual listed below provides necessary information and guidelines for conducting a Cloverbud program. You can order the full curricula manual as a leader or download the sections of the manual for your use from the 4-H Web site. There is also a Farm Animals Member curriculum that can be used with Cloverbuds.

The 4-H Cloverbud curriculum includes hundreds of quick, hands-on, fun, cooperative and noncompetitive activities that can be used by adult volunteers with 4-H Cloverbud youth to help them gain self-understanding, social interaction skills, achievement, and positive attitudes. The 4-H Cloverbud activities enable adult volunteers to help youth relate to science and technology, expressive arts, health, the environment, personal development, citizenship, family science, consumerism, plants and animals.

Cloverbuds — 9010

MATERIALS

- M** Cloverbuds Record, 2FM261, Web
- M** Cloverbud Completion Certificate, 5279, Web
- M** Exploring the Treasures of 4-H: Fun, Friends and Learning, Level 1, BU8171, \$4.00
- L** 4-H Cloverbud Program Manual I: Agents and Volunteer Leader Guide, OH710GPM, \$20.00, Web
(The following sections can be found online: Science and Technology, Community and Expressive Arts, Healthy Living, Environmental Sciences, Personal Development, Citizenship, Family and Consumer Science, Plants and Animals)
- L** Exploring Farm Animals, BU6350, \$4.00
- L** Exploring the Treasures of 4-H Helper's Guide, BU8172, \$10.00
- L** A Palette of Fun with Arts & Crafts, BU7597, Web
- L** Cloverbud Leader and Agents Guide, 5274, Web

EXPLORING 4-H

Exploring 4-H is for beginning members in second through fourth grade, providing a "treasure hunt" for youth to explore the joys of 4-H by discovering their interests, potential 4-H projects, and finding 4-H where they live.

Exploring the Treasures of 4-H Helper's Guide, BU8172, \$10.00

Activities are organized into eight categories that can help youth explore 4-H activities.



Support Material

Montana 4-H offers a number of publications and other materials that support the efforts of leaders and members.

4-H MEMBER RECORDS

- For the Record: Guide to Completing Your Records, 5277, Web
- My 4-H Year Member Record, 0263, Web
- Non-Animal Project Record, 0264, Web
- Animal Project Record, 0265, Web
- Cloverbud Record, 0261, Web

4-H CLUB OFFICER MATERIALS

- Montana 4-H President Book, 5244, Web
- Montana 4-H Vice-President Book, 5245, Web
- 4-H Historian Book, 5260, Web
- Montana 4-H Secretary Book, 5327, \$4.00, Web
- Montana 4-H Treasurer Book, 5242, \$4.00, Web
- Montana 4-H Reporter Book, 5243, \$2.00, Web
- Demonstrations and Illustrated Talks, 5238, Web
- 4-H Public Speaking, 5239, \$3.00

4-H LEADER MATERIALS

- Clover Selection Guide, 5173, Free (limited supply), Web
- Getting Started as a 4-H Project Leader, 90530, \$3.00, Web
- Montana 4-H Councils and Committees Guide, 5281, \$4.00, Web
- The Montana 4-H Leaders' Handbook, 5271, Web
- New 4-H Family Handbook, 5280, \$3.00
- Starting a 4-H Club in Montana, 5278, \$2.00, Web

Certificates and Planning Materials

- Certificate of Achievement, 205, Web
- Certificate of Achievement (1-8 Years), 5129, Web
- Cloverbud Completion Certificate, 5279, Web
- Meeting Agenda, Web
- Membership ID Card, 5236, Web
- Volunteer Leader Certificate, 5128, Web
- Yearly 4-H Club Planning, Web

JUDGING

- 4-H Horse Judging Manual, NM200-R48, Web
- Beef, Sheep and Swine Selection and Evaluation, 4H103R, \$12.00
- Market Lamb Evaluation, 2B0343, Web
- Montana Judging Card (Sheet of 6 cards), 5177, Web

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MONTANA 4-H FOUNDATION

— A sponsor of the Clover Project Selection Guide —

Funding ur Future

In 2009, 4,000 youth and adult volunteers in Montana donated approximately 200,000 hours in planning and conducting exciting educational activities. Economic impact of this volunteer commitment equals 2.8 million dollars and is equivalent to 104 full time staff positions!

1 in 6 school aged children in Montana are 4-Hers.

Montana 4-H youth were supported by over 4,600 trained volunteers in 2010.

Over 23,000 youth participated in 4-H in Montana in 2010 making it the largest out-of-school youth program in Montana and the nation (7 million).

Today, as it did 100 years ago, 4-H emphasizes traditional values such as personal growth and life-skill development through hands on learning.

CELEBRATING 100 YEARS OF MONTANA 4-H IN 2012!



Are You a Donor?

Testimonials prove that 4-H lasts a lifetime and gifts to 4-H really do fund the future. There is no limit to what 4-H can do for an individual and a community. There are countless ways for you to give back to 4-H ... donors show their support each year through annual fund gifts, memorials and tributes, and estate gifts through one's will.

Helping Montana Youth

The Montana 4-H Foundation has been around for over 40 years and was originally established by the Montana 4-H Local Leaders Association. As a non-profit, educational organization, the Montana 4-H Foundation makes its mission to help 4-H youth by raising private funds, managing financial resources and maintaining a vital partnership with MSU Extension and the 4-H Center for Youth Development to fund educational opportunities for youth, volunteer leaders and staff.

Where Does Your Donation Go?

Each year the foundation provides over \$100,000 to Montana 4-H through program support, grants and scholarships. Your support of the general fund is essential to continue this level of commitment into the future.



montana4h.org/#give4h



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MONTANA

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4-H Web Site

www.montana4h.org

Project updates, Programs and
Events, Up-to-date 4-H Calendar
and much, much more...

