

4-H AEROSPACE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Do a presentation about life on the International Space Station
- Prepare a working exhibit on sizes of and distances between the planets of our solar system
- Demonstrate what it takes to build a model airplane
- Compare paper airplanes, how to make them and how they work

Citizenship

- Help cleanup your local airport.
- Volunteer for a Young Eagles club.
- Give others tips to fly smoothly and get through security in airports.

Leadership

- Teach younger kids to make model rockets
- Bring your club to the local airport to learn more about airplanes and pilots.
- Lead a star-gazing session at an evening work-shop or camp

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Are You Into It?

Do you want to learn about flight or space? It's all about the moving through air and space in this project. Whether you're flying kites, hot air balloons, airplanes, or rockets, or reaching for the stars with astronomy. Learn about our universe, galaxy, and what's beyond the Milky Way.

- Develop an interest and understanding of science, engineering and technology.
- Develop problem solving and logical reasoning skills.
- Improve communication and teamwork skills by working the way scientists and engineers do - in teams.
- Develop responsible attitudes about science and how science relates to the real world and people's lives.
- Gain experience in problem solving and decision-making using science process skills.
- Develop knowledge and skills related to Aerospace.

Here's what you can do all year!

Starting Out Basic / Level 1

- Make paper airplanes
- Identify different types of aircraft
- Learn how weather affects flying
- Learn star constellations throughout the year ... and the stories that are told about them

Learning More Intermediate / Level 2

- Make and launch model rockets
- Learn the forces that act on a rocket and experiment with roll, pitch, and yaw
- Build a balloon shuttle
- Use your investigation skills to discover the principles of flight, rocketry, and astronomy
- Design your own experiment and enter your results in science and technology fairs

Expanding Horizons Advanced / Level 3

- Use engineering principles to design your own air- and space-crafts
- Construct an altitude tracker
- Learn pilot certification requirements
- Learn about airport issues in your county or across Iowa
- Learn the science behind science fiction



12/01/13

Take Aerospace further!

Here are other opportunities to explore aerospace field:

- Attend a star-gazing program at a local planetarium.
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community.
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair.
- Enter your science experiment or engineering design in the a local science fair or the State Science + Technology Fair of Iowa <http://www.sciencefairiowa.org/>
- Contact your county ISU Extension Office for other local workshops, activities, and events.
- Meet others interested in aerospace. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of science or engineering? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Make a poster on parts of an airplane or a rocket and their function
- Create a display on different types of aircraft and what they are used for
- Make a poster about the forces that act on an airplane or a rocket
- Chart the moon and make a display about how the moon affects the earth
- Make a poster about constellations and when you can see them
- Exhibit a model rocket
- Demonstrate how whether affects flying
- Create a display comparing birds and airplanes
- Create a typical pilots log and explain why it's important
- Demonstrate different types of aerodynamics on kite flying
- Research hot air balloons and how they work
- Engineer a model glider and create a display of your engineering process and outcomes.

Resources

4-H Resources

- Aerospace Adventures: Levels 1- 4 and Helper's Guide. <http://www.4-hmall.org/Category/4-hcurriculum-aerospace.aspx>
- Rockets Away! <http://estore.osu-extension.org/productdetails.cfm?PC=2413>
- Rockets Away! Leader's Guide <http://estore.osu-extension.org/productdetails.cfm?PC=2766>
- Flyable Paper Airplanes <http://4h.uwex.edu/pubs/pubdetails.cfm?publicationid=4170>
- Wisconsin 4-H Aerospace Activities <http://4h.uwex.edu/onlinepro/aerospace.cfm#plans>
- Contact your local Extension Office to find out if kits, workshops, or activities are available. <http://www.extension.iastate.edu/content/county-offices>

More Resources

- National Aeronautics and Space Administration (NASA) For Students <http://www.nasa.gov/audience/forstudents/index.html>
- NASA Science <http://science.nasa.gov/>
- NASA Kids' Club <http://www.nasa.gov/audience/forkids/kidsclub/flash/index.html>
- Space Camp <http://www.spacecamp.com/camp/sc>
- Iowa State Engineering Kids www.isek.iastate.edu/
- Team America Rocket Challenge <http://rocketcontest.org/>
- Young Eagles <http://www.young eagles.org/programs/young eagles/>
- Federal Aviation Administration <http://www.faa.gov/education/>

Record Keeping

- Find all your record keeping tools at: <http://www.extension.iastate.edu/4h/page/record-keeping>
- 4-H Yearly Summary (4H 0096)
 - Basic 4-H Project Record (4H 0096A)
 - Experienced 4-H Project Record (4H 0096B)
 - Advanced 4-H Project Record (4H 0096C)
 - Recordkeeping Self-Evaluation (4H 98, PDF)

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Learn more at www.extension.iastate.edu/4h/projects/aerospace
or contact your county ISU Extension Office

4-H BEEF PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Teach someone the important traits in selecting a breeding heifer
- Create a poster showing the beef cuts and how to prepare them
- Share a presentation on the importance of following drug labels

Citizenship

- Volunteer to do beef promotion presentations during May Beef Month
- Provide beef taste testing at a grocery store to promote local food
- Volunteer to help at the county fair weigh-in

Leadership

- Arrange a tour of your farm
- Start a beef livestock judging team with help of an adult volunteer
- Lead a beef grooming and showmanship clinic for other 4-H members

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Are You Into It?

In the 4-H beef project you can select from a breeding animal or a market animal. Breeding animals allow you to start your own herd while market animals produce meat products for people.

- Learn basic principles of animal science by owning, caring for, and keeping records on one or more head of livestock
- Demonstrate knowledge of sound breeding, feeding, and management practices
- Learn value of scientific research in its influence on animals and the meat industry

Here's what you can do all year!

Starting Out Basic / Level 1

- Know your beef breeds
- Select your animal
- Identify parts of the animal and cuts of meat
- Train your calf to lead
- Feed your animal
- Learn to show your animal
- Groom your animal
- Learn about all the different beef by-products
- Determine quality grades of cattle
- Recognize a healthy animal
- Show your animal at county or Iowa State Fair

Learning More Intermediate / Level 2

- Ramp up your judging and meat-grading skills
- Make ethical decisions
- Understand the digestive system
- Identify common external parasites and other health issues
- Understand medication uses, storage, how to administer the medication and how it relates to food safety
- Learn the appropriate handling techniques and appropriate housing for beef cattle

Expanding Horizons Advanced / Level 3

- Learn about EPD's and select a sire for your animals
- Balance a beef ration and understand feed quality
- Learn about breeding and reproduction techniques
- Identify and learn to treat common diseases
- Evaluate beef carcasses and market your product



Take Beef further!

Here are other opportunities to explore Beef:

- Visit a local feed mill and see how feed ingredients are mixed, weighed and blended to make a complete ration
- Visit a local meat locker or local grocery meat case to observe preparation and packaging
- Learn how to evaluate meat cuts, quality grade, yield grade and how these affect taste and cost
- Compare feed tags from different companies
- Ride with a local veterinarian to learn about animal health
- Attend a cattle show to listen to a judge give oral reasons and witness the differences in judging cattle
- Become a part of a youth beef team
- Exhibit or attend local, regional or national beef shows and conferences
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and take the beef track, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair beef show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Resources

4-H Resources

- Iowa 4-H Beef
www.extension.iastate.edu/4h/projects/beef
- National 4-H Beef
<http://www.4-h.org/resource-library/curriculum/4-h-beef/>
- Raising 4-H Beef Breeding Heifers (4H 253)
- Beef Breeding Identification Report (4H 106B)
- Bite Into Beef Level 1 (4H 252A)
- Here's the Beef Level 2 (4H 252B)
- Leading the Charge Level 3 (4H 252C)
- Beef Guide to Youth Group Activities (4H 252LDR)
- Bottle/Bucket Calf (4H 390)

Other Resources

- Beef Project
www.extension.iastate.edu/4h/projects/beef
- Iowa Cattleman Association
<http://iacattlemen.org/>
- Iowa Beef Center link
www.iowabeefcenter.org/
- ISU Extension Beef
www.extension.iastate.edu/ag/beef
- Iowa State Animal Science Program link
www.ans.iastate.edu/
- Iowa Jr. Beef Breed's Association
www.showcattlepage.com/ijbba/homepage.htm

Record Keeping

Market Animals

- Record Worksheet (4H 228JR)
- Project Worksheet (4H 228WS)

Breeding Animals

- Record Worksheet (4H 229JR)
- Project Worksheet (4H 229WS)

Exhibit Ideas

- Participate in the 4-H beef show at county or Iowa State Fair
 - Breeding heifer
 - Cow-calf
 - Bucket/bottle calf
 - Market beef
 - Showmanship
 - Rate of gain
- Consider an exhibit, notebook or display showing what you've learned in a beef-related topic
 - Nutritive value of beef
 - Beef meat cuts and proper preparation
 - Feeding rations
 - Preventative vaccinations
 - Photos of different beef breeds
 - Daily routine in caring for animals
 - Making a rope halter
 - Grooming techniques
 - Developing a foundation beef herd
 - Best care techniques for newborns
 - Beef by-products
 - Impact of local foods on local economy
 - Display of feeds or ration contents or analysis
 - How to Tattoo
 - Research how beef check-off dollars are used
 - Video on fitting a steer and/or heifer

BIOLOGICAL & CHEMICAL SCIENCES



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Enter a science & technology fair
- Create an exhibit for your county fair or do an educational presentation

Citizenship

- Present information about hand washing and germs to a local daycare class
- Organize an event to using activities from the Forensic Biotechnology Guide (see More Resources) to teach younger children how biology and chemistry are used in crime scene investigation.

Leadership

- Organize a field trip to a local lab, business, or industry to learn how science, engineering, and technology inform what they do
- Attend 4-H youth conference

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Are You Into It?

Are you fascinated by how living systems work and the chemistry in the world around us? It is all about biological and chemical sciences in this project. Whether you want to learn about life and the chemistry of your world in agriculture, medicine, biotechnology, genetics, crime scene investigation, or engineering, you can discover the secrets through this project.

- Develop an interest, knowledge, and skills related to biological and chemical sciences
- Develop problem solving and logical reasoning skills
- Improve communication and teamwork skills by working the way scientists and engineers do – in teams
- Develop responsible attitudes about science and how science relates to our everyday world and people's lives
- Gain experience in problem solving and decision making using science process skills

Here's what you can do all year!

Starting Out
Basic / Level 1

- Discover what chemistry and biology are all about, from plant and animal science to medical to chemical engineering
- Learn how to control parasites in your animal
- Learn about biosecurity systems in the U.S.
- Discover how chemistry is used to solve crimes

Learning More
Intermediate / Level 2

- Have fun with chemistry and biology! Do experiments, learn about safely, discover the cool things technologies make possible.
- Learn about diseases and environmental controls
- Learn about garden fertilizer and nutrients plants need to grow

Expanding Horizons
Advanced / Level 3

- Design your own experiment and enter your results in science and technology fairs
- Learn about DNA and genetics
- Learn about breeding and reproduction techniques



Take Biological & Chemical Sciences further!

Here are other opportunities to explore the biological & chemical sciences:

- Contact your County Extension Office for local workshops, activities, camps, and events on biological and chemical sciences (<http://www.extension.iastate.edu/4h/contactus/countystaff.htm>)
- Check out the Iowa 4-H Center for camps focused on biological and chemical sciences (<http://www.extension.iastate.edu/4h/center/>)
- Are you in high school? Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community (<http://www.extension.iastate.edu/4h/StateConference/>)
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off your learning. It might get selected to go to the Iowa State Fair. (<http://www.extension.iastate.edu/4h/statefair>)
- Enter your science experiment or engineering design in the a local science fair or the State Science + Technology Fair of Iowa (<http://www.sciencefairiowa.org/>)
- Interested in a college education in the area of biological or chemical sciences? Schedule a visit with Iowa State University to explore those majors. (www.iastate.edu)

Exhibit Ideas

- Make a poster on how DNA fingerprinting works
- Create a display about a research experiment you conducted and entered in a science fair
- Make a display about potentially toxic interactions between chemicals found in common household cleaners
- Create a body-parts chart for a livestock animal, pet, or human
- Create a working exhibit based on one of the National Youth Science Day Experiments (see More Resources)

Resources

4-H Resources	More Resources	Record Keeping
<ul style="list-style-type: none"> • National 4-H Agriscience activities http://www.4-h.org/resource-library/curriculum/agriscience/ • National 4-H biotechnology activities http://www.4-h.org/resource-library/curriculum/agriscience/biotechnology-activities/ • From Mendel to Markers: Impact of Molecular Technology on Animal, Plant, and Human Genetics https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=12081 • Contact your local Extension Office to find out if biology or chemistry related educational kits, workshops, or activities are available http://www.extension.iastate.edu/content/county-offices 	<ul style="list-style-type: none"> • 4-H National Youth Science Day Experiment Archives: 4-H2O, Biofuel Blast, Helpful Hydrogels http://www.4-h.org/4-h-national-youth-science-day/past-experiments-archives/ • ISU Biotechnology Outreach Education Center http://www.biotech.iastate.edu/publications/BOEC/ • Forensic Biotechnology: A Resource Guide for Biotechnology Clubs http://www.lonestar.edu/departments/biotech/Forensics_with_links.pdf • Biotechnology Resources for 4-H http://www2.ca.uky.edu/brei/Teach/4-H/Info/Resources.htm 	<p>Find all your record keeping tools at: http://www.extension.iastate.edu/4h/page/record-keeping</p> <ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

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4-H CHILD DEVELOPMENT PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Read books or stories you have written to younger children
- Create a puppet show to teach children street smart safety tips
- Visit with Clover Kids members about their county fair projects

Are You Into It?

This 4-H project is designed to help you explore the world of child development. From discovering how children develop to creating safe places to grow to learning leadership skills, you are bound to love all the opportunities available with child development projects!

- Learn basic skills needed as babysitters, adults, and potential parents
- Identify characteristics of children ages birth to six
- Discover more about yourself and others

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3	Citizenship
<ul style="list-style-type: none"> • Investigate ways people grow (mentally, socially, emotionally, and physically) • Celebrate differences in yourself and others • Observe how people express emotions • Learn about responsibility and self-motivation • Identify home safety hazards • Keep children safe from toys that are choking hazards 	<ul style="list-style-type: none"> • Learn to plan fun and safe home-alone activities • Sort and select age-appropriate toys for babies, toddlers, and preschoolers • Identify children's strengths and talents to work effectively in teams • Discover healthy food choices in planning and making meals • Explore safety concerns as a home inspector • Develop street smarts 	<ul style="list-style-type: none"> • Explore careers in the child development field and job shadow professionals • Learn child guidance and discipline techniques • Learn about disabilities that create special needs for children and adults • Study a public building to evaluate accessibility for persons with disabilities • Learn about parenting roles and responsibilities • Observe a child's physical, cognitive, emotional and social skills 	<ul style="list-style-type: none"> • Collect puzzles, games, and toys for a local child care center • Create and deliver a coupon booklet with things you will do with a child • Assess the safety of a community playground and work for changes
			Leadership
			<ul style="list-style-type: none"> • Organize a toy drive and donate items to children in the community • Volunteer in your community to help with 4-H educational Clover Kids activities • Create a family job chart

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10/02/13

Take Child Development further!

Here are other opportunities to explore Child Development

- Contact your County Extension office to participate in local child development project workshops and babysitting camps.
- Showcase child development exhibits at county, regional, and/or state fairs.
- Enroll in first aid training for children and babysitter training courses through the American Red Cross.
- Consult a dietician to see how to plan and prepare nutritious meals for children with special diets.
- Invite a fire chief to talk to you and your friends about fire safety at home and while babysitting.
- Assist with a local Clover Kids group.
- Develop your own babysitting business or organize a free one-day child care service for holiday shoppers or parents during parent-teacher conferences.
- Apply to be a Junior Camp Counselor (Counselor in Training) at the Iowa 4-H Center when you are 15-18 years old.
- Attend Iowa 4-H Youth Conference and participate in workshops, listen to motivational speakers, and participate in a community service project; bring ideas back to your club and community.
- Apply to be a summer staff member at the Iowa 4-H Center after you graduate from high school.
- Interested in a college education in the area of child growth and development? Schedule a visit with Iowa State University's College of Human Sciences and the Human Development and Family Studies Department <http://www.hdfs.hs.iastate.edu/>.

Exhibit Ideas

- Develop a "Me Collage" displaying pictures of you, your favorite things, and what makes you special
- Create a display of a choke-tube tester and toys that are safe and unsafe
- Illustrate how to make a Family Job Chart
- Share a diary of all the changes a small child goes through after observing them for a few months
- Create a game or puzzle to use with children and share the results
- Showcase a book you have written, illustrated, and shared with children
- Prepare an age-appropriate scavenger hunt and display the results
- Demonstrate the development of a fun and safe home-alone plan/chart
- Rate the safety and appropriateness of various toys for babies, toddlers, and preschoolers
- Illustrate how to make a family tree with symbols and clay
- Demonstrate the steps involved in planning for and preparing healthy meals for children
- Show how to inspect a home using a home safety checklist
- Create a poster that rates the safety of community playgrounds
- Illustrate accommodations needed for a child with a disability to participate in a classroom or child care center
- Develop a checklist for parents to evaluate children's television shows
- Create a portfolio that illustrates a child's developmental ages and stages
- Prepare a poster showing pros and cons of a discipline technique
- Display a first aid kit made to give to need families in the community after holding a first aid kit supply drive

Resources

4-H Resources

- Iowa 4-H Child Development <http://www.extension.iastate.edu/4h/projects/childdevelopment.htm>
- National 4-H Curriculum <http://new.4-hcurriculum.org/catalog.aspx?cid=168&c=Child%20Development>
- Growing on My Own (4H 246A)
- Growing with Others (4H 246B)
- Growing in Communities (4H 246C)
- 4-H Military Partnerships "I Have What It Takes to be Your Babysitter" <http://www.4-hmilitarypartnerships.org/p.aspx?tabid=82>

Other Resources

- CYFERnet www.cyfernet.org/
- National Network for Child Care www.nncc.org/
- Iowa State University Extension Home and Family <http://www.extension.iastate.edu/homefamily/>
- US Consumer Product Safety Commission http://www.cpsc.gov/cpscpub/pubs/toy_sfy.html
- National Network for Child Care Babysitting Curriculum <http://www.nncc.org/Choose.Quality.Care/babysit0.html>
- Babysitting Beginnings <http://extension.psu.edu/4-h/members/projects-resources/consumerscience/babysitting>

Record Keeping

- 4-H Yearly Summary (4H 0096)
- Basic 4-H Project Record (4H 0096A)
- Experienced 4-H Project (4H 0096B)
- Advanced 4-H Project Record (4H 0096C)
- Recordkeeping Self-Evaluation (4H 98)
- All record keeping resources can be found at: www.extension.iastate.edu/4h/projects/recordkeeping

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4-H CITIZENSHIP PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Give a presentation about the history of your school or town
- Make an appointment with your state legislator and share your thoughts on an issue
- Read newspapers or newsmagazines on a regular basis
- Research a community issue and share your ideas with appropriate board or governing body

Are You Into It?

Make a difference. Discover the needs of your local community and beyond! Help others! Get into Action! Citizenship is the opportunity, right, and responsibility to contribute to shaping the world around you and provide service to others.

- Explore your relationships with others: family, peers, state, nation, and world.
- Get involved! Be an active, responsible citizen.
- Take action to help others!
- Show social responsibility, respect, and respond to the needs, rights, and responsibilities of others.

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3	Leadership
<ul style="list-style-type: none"> • Get to know the other people in your club and what they like to do for fun. • Construct a family tree of relatives identifying places lived and vocations • Interview a neighbor and identify the similarities and differences between you • Create and carry-out a plan to help someone outside your family • Discover the history of your school or community • Tour city or state's hall, Courthouse or capitol • Help pick up trash at a park 	<ul style="list-style-type: none"> • Find out the names of your local or state representatives and the committees they serve on • Interview your principal and find out what you and your 4-H Club can do to improve the school grounds • Collect samples of club by-laws and constitutions; compare and contrast them • Observe a community board meeting • Create and carry-out a plan to help someone in your community 	<ul style="list-style-type: none"> • Volunteer to be a tutor or a mentor in your school • Investigate the departments in your county government and find out what they do • Interview someone from your local Chamber of Commerce or Economic Development Agency to learn about the goals for your community • Identify a cause important to you and determine how to make a difference • Map out area resources available to youth and families 	<ul style="list-style-type: none"> • Organize friends to clean-up a neighborhood park • Ask your local nursing home residents how they would like to celebrate the next holiday and involve others to carry-out the plan • Get approval and then create and conduct a survey for students on a school issue; then share the results with the administration • Serve as a Youth Delegate to either your state Democratic or Republican Party Convention

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Take Citizenship further!

Here are other opportunities to explore Citizenship:

- Participate in county or regional Legislative Day activities
- Apply to be a page in the State Legislature, attend National 4-H Conference or attend National 4-H Congress
- Attend Citizenship Washington Focus
- Contact your county Extension office to participate in 4-H County Council
- Volunteer for a local, county, or state political campaign for a candidate you support
- Create a team to raise funds and participate in a benefit for a national cause you support
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in making a difference. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of political science, sociology, public service administration in agriculture, community and regional planning, community and public health? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Citizenship www.extension.iastate.edu/4h/projects/citizenship • Me, My Family & My Friends (4H 282A) • My Neighborhood (4H 282B) • My Clubs and Groups Level 1 (4H 282C) • My Community Level 2 (4H 282D) • My Heritage Level 2 (4H 282E) • My Government Level 3 (4H 282F) • My World Level 3 (4H 282G) • Citizenship Leader Guide (4H 282LDR) 	<ul style="list-style-type: none"> • Ellis Island http://www.ellisland.org/ • Congress for Kids www.congressforkids.net/citizenship_intro.htm • Education World http://www.educationworld.com/a_curr/curr008.shtml • PBS Kids http://pbskids.org/zoom/activities/action/index.html • White House www.whitehouse.gov/about/white-house-101/ • Character Counts http://charactercounts.org/ • Kids.gov www.kids.gov/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

Exhibit Ideas

- Create a poster about the best things in your community
- Create a video about your community and what visitors should know about it
- Create a "Welcome to our School" kit to be given to new families
- Map the resources for youth and families in your community
- Create a notebook explaining the Bill of Rights and examples in your everyday life
- Give a presentation about the Checks and Balances of the 3 Branches of Government and how they're important to you
- Report your exploration of an issue and define how each branch of government plays a role in its creation, interpretation and carry-out
- Video your group at a service project and interview members about what they did and what it meant to them
- Research candidates for the next Governor election and put a notebook together sharing their stance on different issues
- Create a notebook about the things you learned on Citizenship Washington Focus trip and how they impacted you
- Illustrate in a visual display the process of how a bill becomes a law
- Create a visual representation about the different branches of government and how they work together



4-H CLOTHING AND FASHION PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Make a poster explaining how to read care labels
- Create a 4-H video demonstrating how to sew on a button
- Do a presentation on evaluating construction quality of purchased fabric items

Citizenship

- Donate gently used or outgrown clothing
- Volunteer to sort and clean donated clothing at second-hand stores
- Organize a community clothing drive

Leadership

- Volunteer to take responsibility for washing your family's laundry
- Assist family members in going through their closets to recycle no longer worn clothing
- Bring your family together to organize a clothing garage sale

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Are You Into It?

This 4-H project is designed to help you explore the world of clothing. Fashions fade – learn to make your style your own and timeless in the clothing project. Discover what looks best on your body, how to make it, where to buy it, and how to care for it.

- Express yourself through creating and planning an exciting wardrobe
- Develop skills to purchase and make clothing
- Learn how to use equipment to make and care for your clothes
- Make clothes for yourself and others

Here's what you can do all year!

Starting Out Basic / Level 1

- Learn sewing machine parts, sewing tools, and how to sew on buttons
- Examine the cost savings of buying new versus used clothing and accessories
- Discover your own style with color and line
- Understand how fabrics are made from fibers
- Learn to do laundry on your own

Learning More Intermediate / Level 2

- Learn how to sew garments using patterns and the elements of design
- Discover your personal image through clothing and accessories
- Shop and sew for your body type
- Compare different fabrics, yarns, and finishes
- Discover how to take part in a fashion show

Expanding Horizons Advanced / Level 3

- Discover how to sew garments integrating the principles of design
- Learn the pros and cons of different types of retail sales, various methods to pay for clothing, and techniques for assessing product advertisements
- Understand the differences between natural and manmade fibers
- Review personal care tools for skin and hair



Take Clothing further!

Here are other opportunities to explore Clothing:

- Contact your County Extension Office to participate in local clothing camps, workshops, or county/regional fairs
- If selected to represent your county at the State Fair 4-H Clothing Event, participate in the Clothing Selection, Fashion Revue, or The \$15 Challenge programs
- Consider forming a team to participate in 4-H's *Stitch This!* competition at the Iowa State Fair <http://www.extension.iastate.edu/4h/StateFair/stitchthis>
- Create your own sewing/tailoring business
- Demonstrate proper clothing care with friends and family: laundry, repair, and alterations
- Help family members to shop for clothing that best fits their different body types
- Meet others interested in clothing. Check out camps at the Iowa 4-H Center
- Attend Iowa 4-H Youth Conference and participate in workshops, listen to motivational speakers, and participate in a community service project; bring ideas back to your club and community
- Interested in a college education in the area of apparel merchandising, design, and production? Schedule a visit with Iowa State University's College of Human Sciences and the AMDP Program <http://www.aeshm.hs.iastate.edu/about.php>

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Clothing www.extension.iastate.edu/4h/projects/clothing • Unraveling the Mystery of Elements & Principles of Design in Clothing (4H 313) • Adventures in Clothing Level 1 (4H 315A) • Challenges in Clothing Level 2 (4H 315B) • Strategies for Clothing Level 3 (4H 315C) • Clothing Decisions: Discovering Choice (4H 317A) • Clothing Decisions: Managing Choice (4H 317B) 	<ul style="list-style-type: none"> • Iowa State Fair 4-H Clothing Event http://www.extension.iastate.edu/4h/projects/clothing/events.htm • Home Sewing Association www.sewing.org/ • Butterick-McCall's-Vogue www.mccall.com • Sew-What's-New http://sew-whats-new.com/ • Fabric Link www.fabriclink.com/index.cfm • Hand Stitches http://mdg.ext.msstate.edu/sewing/index.html 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

Exhibit Ideas

- Demonstrate the creation of a seasonal clothing calendar and a wardrobe inventory checklist
- Evaluate cost per wear of various outfits
- Select multiple fabrics and compare what the fabrics are made of, durability, wrinkle resistance, absorbency, colorfastness, and proper care
- Identify how fibers from different countries get made into fabrics and clothing
- Show how to make basic clothing repairs with a needle and thread
- Demonstrate how different accessories compliment an outfit
- Identify the pros and cons of shopping at various types of stores (boutique, department, discount, consignment, outlet, and online)
- Illustrate how integrating design elements and principles can flatter body shapes and positively impact peoples' first impressions
- Create a poster identifying the quality of fabrics based on type of fibers, yarn, construction, finish, and coloring methods
- Describe process of sorting laundry and the effects of water temperature, detergent, bleach, and softener on fabrics
- Rate the effectiveness of different stain removers on various stains



4-H COMMUNICATION PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Citizenship

- Volunteer to teach Clover Kids how to do a new skill
- Try out for a part in a local community theatre production
- Construct props for a school play
- Present puppet shows at a daycare

Are You Into It?

Do you talk to friends? Take part in a school play? Write reports? Read books? If you do, you're communicating! The world of communication impacts you every day. By participating in the 4-H Communication project, you will explore the exciting world of communication, and learn more about yourself and others.

- Learn electronic, oral, visual and written communication skills
- Develop self-confidence through public presentations
- Practice self-expression and creativity
- Demonstrate puppetry and stagecraft skills
- Learn how to organize and present information

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3	Leadership
<ul style="list-style-type: none"> • Introduce a speaker at your club meeting • Learn the basic parts of a speech • Write a thank you note • Learn about puppets used around the world • Make/Create your own puppet • Use clothing to create a character • Practice communicating with gestures • Add voice to a character 	<ul style="list-style-type: none"> • Learn and practice electronic etiquette • Learn to make good impressions • Practice using technology with presentations • Create exciting and effective visual aids • Develop listening skills; observe and record listening types at your next meeting • Learn to make props for a play • Observe others in conversation, keep a journal of your findings 	<ul style="list-style-type: none"> • Prepare for an interview by practicing with your leader • Prepare your resume • Present a persuasive speech • Learn about stage lighting • Write a play; then assemble a cast, direct and present the play at a community event • Learn to mime and perform for your club • Plan and perform a puppet show for a day care center 	<ul style="list-style-type: none"> • Write a short play for your 4-H club to perform • Help another member prepare their working exhibit or presentation • Volunteer to organize publicity for a community event • Direct a school play

4-H
GROWING TOGETHER



08/2/10

Take Communications further!

Here are other opportunities to explore Communication:

- Write a short story or collection of poems. Make copies for your family and friends.
- Give a presentation or working exhibit at your club meeting and at your county communication event.
- Write thank you notes to a speaker or a donor to your club program.
- Organize making posters for display for national 4-H week.
- Record a radio ad or volunteer to be interviewed on a local radio/TV station.
- Volunteer to read a book at library.
- Create and perform a puppet show for library.
- Teach a younger member how to give a presentation or prepare a working exhibit
- Create an electronic presentation about your 4-H club activities for members to use in community presentations.
- Write and direct a skit for a club Share The Fun act.
- Try out for a role in a school play or community theatre production.
- Write a letter to the editor about the value of 4-H for national 4-H week
- Create an improvisational comedy club/group
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Interested in a college education in the area of communication? Schedule a visit with Iowa State University's College of Journalism. www.iastate.edu

Exhibit Ideas

- Give an educational presentation, working exhibit, or extemporaneous speech
- Perform in Share The Fun
- Make a poster to demonstrate use of visual aids
- Construct a puppet theatre and puppets
- Prepare an exhibit describing steps in preparing a speech
- Write a short story. (or a novell!)
- Make an audio file of sound effects to use with a play
- Prepare a poster about text messaging dos and don'ts
- Write and exhibit a collection of poems
- Make an exhibit showing make-up techniques for clowns
- Make a poster for the 4-H Poster Communication exhibit class
- Prepare a poster or presentation about social networking and use by teens

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Communication www.extension.iastate.edu/4h/projects/communication • National 4-H Communication www.n4hccs.org/projects/communications/ • How to Give a Presentation (4H 850A) • Picking Up the Pieces Level 1 (4H 848A) • Putting It Together Level 2 (4H 848B) • The Perfect Fit Level 3 (4H 848C) • LDR Leader Guide (4H 848) • 4-H Theatre Arts Project Manuals 	<ul style="list-style-type: none"> • Score with Your Posters www.extension.iastate.edu/4H/StateFair/EEHandbook/EEHScoreWithYourPosters.pdf • Creating Effective Posters http://www.ncsu.edu/project/posters/NewSite/ • Effective Scientific Posters http://www.ncsu.edu/project/posters/NewSite/documents/QuickReferenceV3.pdf • Check out Iowa State University at www.iastate.edu/ to learn more about programs in journalism and communication, communication studies, speech communication, and theatre 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H-0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H-0096B) • Advanced 4-H Project Record (4H-0096C) • Recordkeeping Self-Evaluation (4H-98, PDF) • Achieving Goals through 4-H Record Keeping (4H-91) • Using Audio or Video for 4-H Project Record Keeping (4H-97A)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

COMPUTERS & NETWORKING



Are You Into It?

It's time to geek out in the Computers and Networking project. Get connected with hardware and software. Explore the digital side of life by building computers or learning how to use or program them for gaming, staying connected, solving problems, and building virtual world and networks.

- Develop an interest in and understanding of computers and networking.
- Develop problem solving and logical reasoning skills.
- Improve communication and teamwork skills by working the way scientists and engineers do - in teams.
- Develop responsible attitudes about science and how science relates to the real world and people's lives.
- Gain experience in problem solving and decision-making using science process skills.
- Develop knowledge and skills related to computer hardware and software.

Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Prepare an educational presentation how computer programming works and enter it in your county fair
- Enter your project in a science or technology fair

Citizenship

- Do a presentation for older members of your community about how to use social networks to stay in touch with their family members

Here's what you can do all year!

Starting Out Basic / Level 1

- Get digital! Learn about computers and the Internet, how they work and how you can use them
- Use the computer for your 4-H record keeping or homework at school
- Teach your grandparents how to use a digital device or internet application you like

Learning More Intermediate / Level 2

- Learn and practice electronic etiquette
- Practice using technology with presentations
- Use computer hardware and software tools and skills and to build a computer, network, simple program, or social network tool

Expanding Horizons Advanced / Level 3

- Use a computer program to design a quilt or wall hanging or make a digital model of an item you are designing or engineering
- Use computer and network hardware, media, and skills to address personal or community problems and issues

Leadership

- Teach younger kids how to be safe when using social media
- Organize a field trip to a local lab, business, or industry to learn how computers and technology inform what they do
- Attend 4-H youth conference

4-H
GROWING TOGETHER



Take Computers & Networking further!

Here are other opportunities to explore computers and networking:

- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community www.extension.iastate.edu/4h/stateconference/
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair www.extension.iastate.edu/4h/statefair
- Contact your local ISU Extension Office for other local workshops, activities, and events related to computers and networking www.extension.iastate.edu/4h/contactus/countystaff
- Meet others interested in computers and networking. Check out camps at the Iowa 4-H Center focused on computers and networking www.extension.iastate.edu/4h/center/
- Interested in a college education in fields related to computers and networking? Schedule a visit with Iowa State University to explore those majors www.iastate.edu
- Enter your computer programming or engineering design in the a local science fair or the State Science + Technology Fair of Iowa www.sciencefairiowa.org/

Exhibit Ideas

- Make a poster on parts of a computer
- Create a display about social media etiquette and safety
- Exhibit a simple computer game you wrote
- Do an educational presentation on the history of different computer languages
- Build your own computer and exhibit it

Resources

4-H Resources	More Resources	Record Keeping
<ul style="list-style-type: none"> • 4-H Computer Curriculum http://www.4-h.org/resource-library/curriculum/4-h-computer/ 	<ul style="list-style-type: none"> • Tech Fair: Iowa Technology & Education Connection http://www.itec-ia.org/en/tech_fair/ • HyperStream: The Tech Hub for Iowa Students http://hyperstream.org/ • IT-Adventures http://www.it-adventures.org/ • ISU Computer Science K-12 Outreach http://www.cs.iastate.edu/outreach/K12outreach.php • ID Tech Camps http://www.idtech.com/?utm_source=constantcontact&utm_medium=email&utm_campaign=Oct10p • Iowa State Engineering Kids (ISEK) http://www.isek.iastate.edu/camp/ 	<p>Find all your record keeping tools at: http://www.extension.iastate.edu/4h/page/record-keeping</p> <ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

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4-H
GROWING TOGETHER

4-H CONSUMER MANAGEMENT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster comparing similar products
- Do a presentation about advertising techniques
- Talk to a group about different internet shopping sites and the value or concerns with those

Are You Into It?

Use the Consumer Management project to get more bang for your buck! Find out how to use your money to get the things you want.

- Identify needs and wants, and how you spend your money on each.
- Make informed consumer decisions to reach your goals and to solve problems.
- Know your rights as a shopper.

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3	Citizenship
<ul style="list-style-type: none"> • Set a budget, make a list, and go shopping • Make a list of your needs and your wants, and write down how you spend your money on each • Compare costs of similar products: different stores, or generic/name-brand, or homemade/purchased, new/used • Develop a savings plan to save for an item that you want to buy 	<ul style="list-style-type: none"> • Set goals to spend your money wisely • Learn why you decide to buy what you do - advertising, peers, needs, priorities, and interests • Identify the benefits of different savings account options • Identify and make ethical decisions in earning and spending your money • Compare return policies of different vendors—stores and on-line. 	<ul style="list-style-type: none"> • Set saving, spending, and sharing goals for your money • Identify the true cost of different kinds of credit. • Develop a plan for the future – college, car, independent living • Learn about consumer rights and how to use them effectively • Compare warranty policies on different brands/stores for similar items 	<ul style="list-style-type: none"> • Give a portion of your money to a cause that you believe in • Volunteer to help manage money at a fundraiser • Go to a senior center and teach adults about safe online shopping
			Leadership
			<ul style="list-style-type: none"> • Help your family identify needs and wants • Serve as the treasurer of a group • Organize a fundraiser for a cause you believe in

4-H
GROWING TOGETHER



10/03/13

Take Consumer Management further!

Here are other opportunities to explore Consumer Management:

- Job-shadow at a local business in a career that interests you
- Visit a local bank and learn about savings & credit opportunities
- Help your club manage their resources by running for Club Treasurer
- Organize a prom dress re-sale or exchange program in your community or school; or organize a food or clothing pantry to benefit local residents.
- Visit a local used clothing store and learn how they evaluate and price their merchandise.
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events.
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Interested in a college education in the area of business or agricultural business? Schedule a visit with Iowa State University. www.iastate.edu.

Exhibit Ideas

- Compare the price of similar pieces of clothing (jeans for example) at a variety of places
- What happens to clothes donated to Goodwill if they don't sell
- Track your spending for a month and see where your money goes
- Track your spending related to a 4-H project (livestock, photography, clothing, pets)
- Track how you spend another of your resources, TIME
- Compare colleges, trade schools etc.
- Explore advertised products with various target audiences (examples include children's programs, prime time, sporting events)
- Describe the cost of fraud (shoplifting, bad check, etc.)
- Describe potential problems related to privacy issues (social security numbers, credit cards, internet shopping etc.)
- Identify agencies that assist in resolving consumer complaints
- Investigate where products are manufactured
- Compare a product in name brand, generic brand and homemade brand (if possible). Is name brand worth the cost?
- Prepare a product complaint letter
- Decision making when purchasing an expensive product

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Consumer Management www.extension.iastate.edu/4h/projects/consumermanagement • Financial Champions - Money FUN-damentals, Level 2 (4H 356A) • Financial Champions - Money Moves Level 3 (4H 356B) • This is the Way I Spend My Money (4H 353) • The Consumer In Me Level 1 (4H 357A) 	<ul style="list-style-type: none"> • FTC www.ftc.gov/ • Tracking Your Spending www.extension.iastate.edu/Publications/PM1918.pdf • Family Finances www.extension.iastate.edu/financial • Consumer Financial Protection Bureau http://www.consumerfinance.gov/ • PBS: Don't Buy It http://pbskids.org/dontbuyit/ • Teach Younger Kids Money Skills www.creditunion.coop/pre_k/index.html • Better Business Bureau http://www.bbb.org 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H CROP PRODUCTION PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Show your group the difference between a healthy plant and a sick one, and tell how that happens
- Do a presentation on sampling soil
- Develop a journal with the details of the fields you scout

Citizenship

- Help teach others about farm safety
- Join and participate in a farm commodity association
- Organize and lead an appreciation event for farmers during harvest

Leadership

- Create farm safety rules for your family and share with others
- Plan a tour of a seed corn plant for your group
- Develop a "harvest loss frame" and use it to help other farmers calculate their harvest losses

4-H
GROWING TOGETHER

Are You Into It?

Get your hands dirty in Crop Production! Find out how soils, bugs, beetles and more affect your crops. Whether it's corn, soybeans, wheat, hay or silage, 4-H crop production is for you!

- Learn how soil, seeds, weather, pests, and fertilizer affect field crops
- Learn the value and uses of field crops
- Learn how new technology can change the way field crops are grown
- Keep records of crop production

Here's what you can do all year!

Starting Out Basic / Level 1

- Plant something and watch it grow
- Find differences when you: plant seeds in different soils, use different fertilizers and control weeds & pests
- Identify what helps plants grow, and what's harmful to them
- Go through the interactive CD "Soybean and Corn" available through Extension Distribution

Learning More Intermediate / Level 2

- Take a soil sample
- Calculate growing degree days
- Scout fields for growing conditions
- Discover products that are made from field crops
- Protecting your plants from pests
- Decide what varieties of crops to plant and at what time
- Learn soil and nutrient requirements

Expanding Horizons Advanced / Level 3

- Manage your own crops based on Integrated Crop Management principles
- Explore career opportunities related to crop production
- Calculate harvest losses and their causes
- Calculate expenses and incomes to determine the profitability of field crops
- Identify how new technology impacts crop production



Take Crop Production further!

Here are other opportunities to explore Crop Production:

- Job-shadow at a local business in a career that interests you
- Attend adult Pesticide Applicator Training or Crop Advantage workshops at your county Iowa State University Extension office
- Organize a fundraiser that plants and markets a crop, donating proceeds to a worthy cause
- Attend Iowa 4-H Youth Conference and participate in CSI: Crops and other workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in crop production. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of crop production? Schedule a visit with Iowa State University College of Agriculture and Life Sciences to explore majors. www.iastate.edu

Exhibit Ideas

- Create a booklet of all the uses of corn and soybeans
- Make a poster with a diagram of cut-off corn stalks and show the growing point
- Keep a journal of your plants, recording rainfall and other weather data, fertilizer and pesticide application, hybrid variety selection and other factors that influence the growth and development of your crop
- Produce a video about the role of legumes in fixing nitrogen in the soil
- Create a display showing potential safety hazards on a farm. Educate others on ways to prevent these hazards
- Design a poster to teach others about the information provided on seed labels
- Develop a field map showing the locations you checked for stand counts, and explain possible reasons for differences
- Create a photo journal of actual crop fields with or without a lot of weed competition
- Give an educational presentation on resources that are available to help in conservation planning
- Create a display or educational presentation comparing the financial risk associated with different types of financial agreements

Resources

4-H Resources

- Iowa 4-H Crop Production www.extension.iastate.edu/4h/projects/cropproduction
- Seedy Business with CD Level 1 (4H 381A)
- Green and Growing Level 2(4H 381B)
- Be'an All You Can Be Level 3 (4H 381C)

Other Resources

- United Soybean Board www.unitedsoybean.org
- Iowa Soybean Association www.iasoybeans.com
- National Corn Growers www.ncga.com
- Iowa Corn Growers www.iowacorn.org
- Iowa Grain Quality Initiative <http://www.extension.iastate.edu/Grain/>
- ISU Agronomy www.agron.iastate.edu
- USDA Web Soil Survey <http://websoilsurvey.nrcs.usda.gov/app/>

Record Keeping

- Crop Scouting Form (4H 382A)
- Crop and Weather Report (4H 382B)
- Crop Air and Soil Temperature Record (4H 382C)
- Corn and Soybean Project Balance Sheet (4H 382D)
- Crop Production Project Worksheet (4H 382WS)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H DAIRY CATTLE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on dairy breeds
- Take part in a quiz bowl contest
- Teach others about showmanship techniques
- Give a speech on the importance of the dairy industry

Citizenship

- Have your animal as part of a petting zoo sharing the importance of dairy
- Be a part of a dairy promotion event

Leadership

- Arrange for your class to tour a dairy farm
- Be a mentor for a younger 4-H'er
- Organize a county grooming clinic
- Attend the National Dairy Conference and encourage other youth to attend

4-H
GROWING TOGETHER

Are You Into It?

The dairy industry is one of the foundations of agriculture. There's so much more to it than just producing milk! The dairy industry has become a sophisticated business and there's a lot to learn beyond exhibiting your project.

- Acquire skills in dairy production through ownership and care of dairy animals.
- Learn marketing, processing, distribution, consumption, and use of dairy products.
- Practice principles of cleanliness and sanitation in production and care of dairy products.
- Learn nutritive value of dairy products and promote their use.

Here's what you can do all year!

Starting Out Basic / Level 1

- Know your dairy breeds
- Select your animal
- Identify parts of the animal
- Learn to evaluate your animal
- Feed your animal
- Demonstrate multiple showing techniques
- Grooming your animal
- Keep cost records
- Research on where to find answers to all your dairy questions
- Showmanship techniques

Learning More Intermediate / Level 2

- Ramp up your judging skills
- Make ethical decisions
- Identify a sick animal, how to treat it and future prevention
- Understand medication uses, storage, administering of medication and how it relates to food safety
- Learn appropriate handling techniques and housing of dairy cattle
- Evaluate feed quality and how it affects digestion
- Find a career in dairy production

Expanding Horizons Advanced / Level 3

- Learn body condition scoring
- Debate animal welfare issues
- Use records to make management decisions
- Investigate signs and causes of mastitis
- Balance a dairy ration
- Learn about breeding and reproduction techniques
- Promote the dairy industry
- Explore different career opportunities



Take Dairy Cattle further!

Here are other opportunities to explore Dairy Cattle:

- Participate in regional or statewide quiz bowl events and judging contests
- Market and sell project animals to other 4-H'ers
- Start your own dairy herd
- Educate communities about the dairy industry
- Attend Animal Science Roundup as part of the Iowa 4-H Youth Conference and take the dairy track
- Participate in a community service project, bringing ideas back to your community.
- Take part in the National Dairy Conference in Madison, Wisconsin
- Enjoy a summer internship working at a dairy farm
- Take a tour of the new state of the art ISU Dairy Farm
- Attend a local or state dairy show and listen to the judge give oral reasons on the classes
- Is it fair time? Consider showing in your County Fair dairy show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Create a poster on a dairy-related topic
 - Assemble an emergency medical kit
 - Investigate the carcass merit of dairy steers
 - Design a poster on the many dairy breeds
 - Proper selection and how to judge your animal
 - Fitting techniques for show day
 - Display on proper feed rations
 - Explain various housing and care techniques of dairy cattle
 - How artificial insemination and cloning has changed the industry
 - How to properly register and keep records on your animals
 - Compare and contrast the dairy breeds and their positive traits
- Make a scrapbook of your animal(s)
- Develop a presentation on the following:
 - Grooming your animal
 - How to start a dairy herd
 - The impact of the dairy industry on consumers
 - Comparison on the nutritive value of dairy vs. non-dairy products
 - How to properly show your animal
- Continue exhibiting the same animal(s) to show the progression and how they've changed

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Dairy Cattle www.extension.iastate.edu/4h/projects/livestock/dairy.htm • Cowabunga! Level 1 (4H 398A) • Moooving Ahead Level 2 (4H 398B) • Leading the Way Level 3 (4H 398C) • Dairy Project Leaders Guide (4H 398 LDR) • Bottle/Bucket Calf (4H 390) • Learning About Dairy (4H 392) 	<ul style="list-style-type: none"> • World Dairy Expo link www.world-dairy-expo.com/world-dairy-expo-home.cfm • National Dairy Conference http://4h.uwex.edu/events/dairyconf/ • Iowa State Dairy Science Program link www.ans.iastate.edu/centers/dairy/ • National Dairy Herd Improvement Assoc. www.dhia.org • The Dairy Site www.thedairysite.com 	<ul style="list-style-type: none"> • Dairy Animal Project Worksheet (4H 392 WS) • Dairy Animal Lifetime Record (4H 393 WS) • WS Dairy Goat Lifetime Record (4H 393A) • Dairy and Dairy Goat ID Report (4H 106A)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H DAIRY GOAT PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on dairy goat breeds
- Teach others about showmanship techniques
- Give a speech on the importance of the dairy industry

Are You Into It?

The dairy industry is one of the foundations of agriculture. There's so much more to it than just producing milk! Most think of just dairy cattle that produce dairy products. Think again!!

- Acquire skills in dairy goat production through ownership and care of dairy goats.
- Learn marketing, processing, distribution, consumption, and use of dairy products.
- Discover selecting your project, to raising it, to finding a career in the industry.
- Learn nutritive value of dairy products and promote their use.

Here's what you can do all year!

Citizenship

- Have your animal as part of a petting zoo sharing the importance of dairy
- Be a part of a dairy promotion event

Leadership

- Arrange for your class to tour a dairy goat farm
- Be a mentor for a younger 4-H'er
- Organize a county grooming clinic
- Attend a national or regional conference and encourage other youth to attend

4-H
GROWING TOGETHER

Starting Out Basic / Level 1

- Know your dairy breeds
- Select your animal
- Identify parts of the animal
- Learn to evaluate your animal
- Feed your animal
- Demonstrate multiple showing techniques
- Grooming your animal
- Keep cost records
- Research on where to find answers to all your dairy questions
- Showmanship techniques

Learning More Intermediate / Level 2

- Ramp up your judging skills
- Make ethical decisions
- Identify a sick animal, how to treat it and future prevention
- Understand medication uses, storage, administering of medication and how it relates to food safety
- Learn appropriate handling techniques and housing of dairy cattle
- Evaluate feed quality and how it affects digestion
- Find a career in dairy production

Expanding Horizons Advanced / Level 3

- Learn body condition scoring
- Debate animal welfare issues
- Use records to make management decisions
- Investigate signs and causes of mastitis
- Balance a dairy ration
- Learn about breeding and reproduction techniques
- Promote the dairy industry
- Explore different career opportunities



Take Dairy Goats further!

Here are other opportunities to explore Dairy Goats:

- Tour a dairy goat operation
- Participate in regional or statewide quiz bowl events and judging contests
- Market and sell project animals to other 4-H'ers
- Start your own dairy goat herd
- Educate communities about the dairy goat industry
- Participate in a community service project, bringing ideas back to your community
- Enjoy a summer internship working at a dairy goat farm
- Research dairy goat by-products
- Compare the differences in dairy cattle and dairy goat milk and cheese production
- Attend a local or state dairy goat show and listen to the judge give oral reasons on the classes
- Is it fair time? Consider showing in your County Fair dairy goat show or the Iowa State Fair
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Dairy Goat www.extension.iastate.edu/4h/projects/dairy-goat • Getting your Goat Level 1 (4H 396A) • Stepping Out Level 2 (4H 396B) • Showing the Way Level 3 (4H 396C) • Dairy Goat Leader Guide (4H 396 LDR) 	<ul style="list-style-type: none"> • Iowa Dairy Goat Association www.iowadairygoat.org • American Dairy Goat Assoc. www.adga.org • Dairy Goat Journal www.dairygoatjournal.com 	<ul style="list-style-type: none"> • Dairy Animal Project Worksheet (4H 392 WS) • Dairy Animal Lifetime Record (4H 393 WS) • WS Dairy Goat Lifetime Record (4H 393A) • Dairy and Dairy Goat ID Report (4H 106A)

Exhibit Ideas

- Create a poster on a dairy goat-related topic
 - Assemble an emergency medical kit
 - How to properly tattoo your dairy goat
 - Design a poster on the many dairy breeds
 - Proper selection and how to judge your animal
 - Fitting techniques for show day
 - A display on proper feed rations
 - Prepare a dairy goat show kit
 - Describe the proper terms when talking about dairy goats
 - How to properly register and keep records on your animals
 - Compare and contrast the dairy breeds and their positive traits
- Make a scrapbook of your animal(s)
- Develop a presentation on the following:
 - Grooming your animal
 - How to start a dairy goat herd
 - Comparison on the nutritive value of dairy vs. non-dairy products
 - How to properly show your animal
- Continue exhibiting the same animal(s) to show the progression and how they've changed

DIGITAL STORYTELLING



Are You Into It?

Do you love to tell stories using digital technology? In this project you get to tell your story or the stories of others by learning all about the production process and technologies that make it possible. Zoom in on animation, video production, editing, sound production, image manipulation, and the secrets to telling a great story.

- Develop an interest in and understanding of digital storytelling.
- Develop problem solving and logical reasoning skills.
- Improve communication and teamwork skills by working the way they do in the real world – in production teams.
- Develop responsible attitudes about technology and how technology relates to the real world and people's lives.
- Gain experience in problem solving and decision-making using science process skills.
- Develop knowledge and skills related to digital storytelling.

Here's what you can do all year!

Starting Out Basic / Level 1

- Discover the world of digital storytelling from the process of creating stories to the technology that makes it possible.
- Learn about cameras and microphones and their functions
- Discover light and sound techniques that make quality presentations possible.
- Analyze various media forms and evaluate their use in different situations.

Learning More Intermediate / Level 2

- Use digital storytelling tools to create an image, video, or audio project
- Play with audio and video editing software.
- Discover how audio can enhance the quality of video production.
- Discover how design elements and art principles impact your message.
- Work with the different media styles and evaluate when each would be the most effective at telling a story.

Expanding Horizons Advanced / Level 3

- Use digital storytelling hardware, software and communication principles to tell a compelling story.
- Use your skills to create a 4-H story for member recruitment in your county
- Use your digital storytelling skills to bring awareness to a need in your community.
- Organize a local media event for youth to exhibit and share their storytelling productions.

Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Enter a video in a film competition for youth such as the Iowa 4-H Film Festival
<http://www.extension.iastate.edu/4h/SateFair/filmfestival.htm>
- Create an exhibit for your county fair or do an educational presentation about a technology or technique you've used.

Citizenship

- Use video or audio production to inspire community members or your city council to take action on a topic important to you
- Use your digital storytelling skills to help a local non-profit

Leadership

- Organize a fieldtrip to a local lab, business, or industry to learn how they use digital storytelling
- Teach a workshop on video production or image editing during a day camp

4-H
GROWING TOGETHER



Take Digital Storytelling further!

Here are other opportunities to explore digital storytelling:

- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community.
<http://www.extension.iastate.edu/4h/StateConference/>
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair.
<http://www.extension.iastate.edu/4h/statefair>
- Enter your digital storytelling production in the Iowa 4-H Film Festival
<http://www.extension.iastate.edu/4h/statefair/filmfestival> or Film Fest: National 4-H Film Festival.
<http://4h.missouri.edu/go/events/filmfest/>
- Contact your County Extension Office for local workshops, activities, camps, and events on video, audio, or image production. <http://www.extension.iastate.edu/4h/contactus/countystaff.htm>
- Meet others interested in digital Storytelling. Check out camps at the Iowa 4-H Center focused on digital storytelling. <http://www.extension.iastate.edu/4h/center/>
- Interested in a college education in digital storytelling? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Resources

4-H Resources	More Resources	Record Keeping	Exhibit Ideas
<ul style="list-style-type: none"> • Iowa 4-H Film Festival http://www.extension.iastate.edu/4h/StateFair/filmfestival.htm • 4-H Filmmaking Studio and Workshop, the online space to learn about filmmaking, digital storytelling, and videography webpage http://www.4-h.org/curriculum/filmmaking • Film Fest: National 4-H Film Festival http://4h.missouri.edu/go/events/filmfest/ 	<ul style="list-style-type: none"> • University Houston's Educational uses of Digital Storytelling http://digitalstorytelling.coe.uh.edu/page.cfm?id=27&cid=27&sublinkid=30 • For free clips, sound effects, and music you can use in your videos, check out: http://digitalstorytelling.coe.uh.edu/archive/public_domain.html 	<p>Find all your record keeping tools at: http://www.extension.iastate.edu/4h/page/record-keeping</p> <ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF) 	<ul style="list-style-type: none"> • Develop a presentation or working exhibit that shows a technique in digital storytelling. • Do a working exhibit on how to develop a storyboard. • Make a poster on the different shot angles for videos. • What impact does sound have on video production? Find out and share your findings in a video. • Create a timeline with visuals of significant events in the development of media and media messaging. • Create a survey on what other youth think and feel about today's media issues. Tweet your friends and keep a tally. Report out through a poster, video, etc. • Create a video on pros and cons of media messages. • Develop a workshop that shows others how to analyze media for its impact. • Create an original piece of artwork using digital software. Explain how the objects are connected through media style and format. • Develop a display or notebook on production of a message. • Develop a display that explains how light, composition, and framing impacts the quality of a photograph

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4-H
GROWING TOGETHER

4-H DOG PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

Prepare a poster or demonstration:

- How to approach a dog safely
- How to prepare a dog for showing
- How to train a dog for exhibition
- How to select a nutritional diet
- How to select dog species for your family

Citizenship

- Clean up in your local dog
- Volunteer at an animal shelter
- Write a letter to your local paper about the importance of having dogs spayed or neutered

Leadership

- Organize a dog show for your club
- Organize a fundraiser to help benefit an animal shelter
- Organize a dog therapy 4-H club in your community
- Develop a plan to foster dogs of deploying soldiers

4-H
GROWING TOGETHER

Are You Into It?

"Lions, Tigers, and Bears, oh my!" Do not make good pets but dogs do! Dogs are also used for sport and assist in working livestock. The dog project helps you explore what kind of dog fits into your family's lifestyle and how to be an excellent trainer and caretaker of your dog.

- Learn major dog breeds and identify their characteristics
- Study responsibilities of dog ownership
- Demonstrate dog care and management in feeding, handling, record-keeping, grooming and fitting
- Learn dog health regulations, first aid, and simple treatments for ailments

Here's what you can do all year!

Starting Out Basic / Level 1

- Gather information and determine the best dog for your family
- Learn about the proper care, grooming and feeding of your dog
- Learn to identify the parts of your dog for conversations with your vet
- Create a plan to prevent your dog from getting lost or finding it if it gets lost
- Purchase and use the appropriate grooming equipment and techniques
- Practice appropriate training for your dog

Learning More Intermediate / Level 2

- Plan a training and exercise program for your dog
- Prepare for participation in a dog show
- Make a decision about breeding or not breeding your dog
- Compare the labels on dog foods to make an informed decision on content and price
- Keep a diary of your dog's health and eating habits
- Research kennels facilities in your area and decide if one is right for your dog

Expanding Horizons Advanced / Level 3

- Create a trainer's diary to assist you when you work with your dog
- Interview someone who uses a service dog to assist them
- Create a dog ownership budget
- Help a friend make a decision about dog ownership
- Research diseases in dogs
- Identify symptoms and a course of action if your dog gets sick



Take Dogs further!

Here are other opportunities to explore Dogs:

- Contact your county Iowa State University Extension Office for information about local dog related events www.extension.iastate.edu/ouroffices.htm
- Learn about service animals and the process for fostering and training a service animal
- If you are interested in veterinary science and taking care of dogs, visit with Iowa State University's College of Veterinary Medicine <http://vetmed.iastate.edu/>
- Job-shadow at a local business (pet store, veterinary clinic, breeder, etc.) in a dog related career that interests you
- Go to local and area dog shows and explore the differences in dog breeds and how they are shown
- Explore health safety issues with dogs – what diseases do dogs have that might make humans ill?
- Explore what kinds of dogs make the best pets – compare breeds, inside dogs, outside dogs
- Learn how puppies are acquired by the local pet store
- Research all the kinds of parasites your dog might get and how to protect you and your dog
- Do some comparison shopping for dog supplies
- Explore what kind of restrictions and laws your community might have on dogs
- What are the requirements for licensing a dog in your community?
- Explore the subject of animal assisted therapy, how it is used and what the benefits are
- If you are in high school, consider attending the annual Iowa 4-H Youth Conference

Exhibit Ideas

- Exhibit your dog at the fair
- Make a first aid kit for a dog. Tell why and how each item is used
- Share diet and nutrition information for raising a healthy dog – teach other 4-H members how to read a nutrition label on the dog food bag
- Interview your veterinarian about a microchip to identify your dog; develop a video about options
- Attend a dog show; take photos and make a notebook about dog breeds
- Write a story about your dog for a younger sibling
- Visit a pet store and find as many pieces of dog equipment as you can. Identify necessary equipment and costs
- Make a poster on diseases your dog can get. Tell about its discovery, effects, treatments, prognosis, and outcomes
- Research jobs related to dogs; make a poster showing three jobs that interest you
- Develop a video showing the steps in training a dog
- Research the country or area your dog came from. Take special note of the people, tradition and other types of animals that live in the area. Design a poster showing your dog's origin
- Design a toy for your dog; tell about your decisions related to safety and cleanliness

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Dogs www.extension.iastate.edu/4h/projects/dogs • 4H 403A Wiggles and Wags, Dog Level 1 • 4H 403B Canine Connection, Dog Level 2 • 4H 403C Pointing the Way, Dog Level 3 • 4H 403 LDR Dog Leader Guide • 4H 402AX Training Your Dog for Family Living • 4H 402BX Dog Obedience Training for Beginners, Graduate Beginners, Brace, and Team • 4H 402CX Dog Obedience Training for Novice, Graduate Novice 	<ul style="list-style-type: none"> • Service Animal http://www.nh.gov/disability/information/community/serviceanimal.s.htm • Animal Assisted Therapy http://censhare.umn.edu/AAT.html • Healthy dogs http://www.cdc.gov/healthypets/animals/dogs.htm • http://vetmed.illinois.edu/petcolumns/classification_search_result.php?FLAG=DISPLAY&CLASSIFICATIONID=3&CLASSNAME=Dogs • https://www.avma.org/public/EmergencyCare/Pages/First-Aid-Tips-for-Pet-Owners.aspx • http://healthy-dogs.net/ • Learn About Man's Best Friend http://www.4-h.org/resource-library/curriculum/4-h-dog/ • American Kennel Club 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF) • Dog ID Form 4-H 106E • For additional record keeping and scorecards go to www.extension.iastate.edu/4h/projects/dogs

4-H EARTH & CLIMATE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Create a blog about how kids can be environmentally friendly.
- Do a presentation on where recycled items from your community go and how they are reused.
- Prepare a working exhibit on what green technology is and what it isn't.

Citizenship

- Write a letter to the editor about an earth or climate issue that concerns you.
- Participate in an Earth Day celebration.

Leadership

- Develop a workshop on how adults can easily use green technology at home.
- Create a recycling center at home and teach your family to use it.
- Organize a field trip to meet a meteorologist and learn what it takes to do their job.

4-H
GROWING TOGETHER

Are You Into It?

If the changing planet is on your charts, exploring Earth & Climate should be on your radar. Focus on issues ranging from geology to climate change and find out what everyone is talking about.

- Develop an interest in and understanding of sciences related to our planet, its weather and climate.
- Develop problem solving and logical reasoning skills.
- Improve communication and teamwork skills by working the way scientists and engineers do -- in teams.
- Develop responsible attitudes about science and how science relates to the real world and people's lives.
- Gain experience in problem solving and decision-making using science process skills.
- Develop knowledge and skills related to our planet, its weather and climate.

Here's what you can do all year!

Starting Out Basic / Level 1

- Use science to learn about our natural world, the earth and the atmosphere, and how they're changing.
- Explore what it means to be sustainable, from personal, agricultural, and wilderness sustainable practices to renewable energy and conservation technologies.
- Learn about energy cycles.
- Find out about Iowa's renewable and non-renewable energy sources.

Learning More Intermediate / Level 2

- Use your investigation skills to learn about the earth, weather, and climate.
- Find ways to make sustainable choices and help others discover sustainable practices.
- Make your home environmentally friendly with your family ~ set up a recycling station, use green products, be creative in reusing items you already have.
- Study an environmental issue (soil erosion, climate change)

Expanding Horizons Advanced / Level 3

- Monitor water quality in your community with the IOWATER program. <http://www.iowadnr.gov/Environment/WaterQuality/WaterMonitoring/IOWATER.aspx>
- Participate in the the National Weather Service Cooperative Observer Program. <http://www.nws.noaa.gov/om/coop/>
- Make your own renewable energy system
- Help your community implement sustainable practices



Take Earth & Climate further!

Here are other opportunities to explore the earth and climate sciences:

- Attend a weather spotter training.
- Investigate what your carbon footprint is.
- Check out different types of light bulbs and create a campaign to use the most efficient bulb possible.
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community.
<http://www.extension.iastate.edu/4h/iowa4hyouthconference>
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair.
<http://www.extension.iastate.edu/4h/statefair>
- Enter your science experiment or engineering design in a local science fair or the State Science + Technology Fair of Iowa. <http://www.sciencefairiowa.org/>
- Contact your local ISU Extension Office for other local workshops, activities, and events related to earth, weather, and climate sciences. <http://www.extension.iastate.edu/content/county-offices>
- Meet others interested in our planet, its weather, and climate. Check out camps at the Iowa 4-H Center.
<http://www.extension.iastate.edu/4h/camping/center>
- Interested in a career in geology, paleontology, whether, climate, or other planet related sciences? Schedule a visit with Iowa State University to explore those majors. <http://www.iastate.edu>

Resources

4-H Resources	More Resources	Record Keeping
<ul style="list-style-type: none"> • Exploring Your Environment www.4-h.org/resource-library/curriculum/4-h-exploring-your-environment/ • There's No New Water www.4-h.org/resource-library/curriculum/4-h-theres-no-new-water/ • The Power of Wind www.4-h.org/resource-library/curriculum/4-h-the-power-of-the-wind/ • 4-H2Online http://www.4-h.org/youth-development-programs/4-h-science-programs/environmental-science-alternative-energy/4h2online/ • National Youth Science Day Activities http://www.4-h.org/4-h-national-youth-science-day/past-experiments-archives/ 	<ul style="list-style-type: none"> • Conservation Station http://www.extension.iastate.edu/ilf/page/conservation-station • IOWater http://www.iowadnr.gov/Environment/WaterQuality/WaterMonitoring/IOWATER.aspx • Wonderwise: Space Geologist http://wonderwise.unl.edu/18space/spacesite.htm • NASA Global Climate Change http://climate.nasa.gov/ • National Renewable Energy Laboratory http://www.nrel.gov/ • U.S. Geological Survey http://www.usgs.gov/ • Eyes on the Earth http://eyes.nasa.gov/earth/download.html 	<p>Find all your record keeping tools at: http://www.extension.iastate.edu/4h/page/record-keeping</p> <ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

Exhibit Ideas

- Create a temperature and precipitation log as a National Weather Service Observer
- Create a survey on what other youth think and feel about today's climate issues. Text your friends and keep a tally. Report out through a poster, video, blog, etc.
- Make a poster about weather safety (tornado safety, flash floods, blizzards, etc.)
- Make a poster on green technology that can easily be used at home
- Make a poster comparing the fuel efficiency of different types of vehicles
- Make a poster explaining the Energy Star rating used on household appliances

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4-H
GROWING TOGETHER



ENVIRONMENT & SUSTAINABILITY



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Do a presentation on the benefits of wind energy
- Create a "Trees of Iowa" poster
- Demonstrate how to collect and mount insects, leaves, plants, etc.
- Create a blog about an environmental issue
- Create a video on how to weatherize your home

Citizenship

- Help out at your local park
- Write a letter to the editor about a conservation or environment issue that concerns you
- Create a Sustainability Team to reduce non-recyclable products

Leadership

- Clean up a local pond or lake to help the local fish environment
- Plan and conduct an "energy fair" teaching younger kids about wind, solar, biomass, and coal energy
- Organize an environmental club in your community

4-H
GROWING TOGETHER

Are You Into It?

Do you want to make the earth a better place to live? It is all about the environment in this project, whether it's plants, animals, habitats, environmental issues, saving energy, renewable resources, or recycling! You pick the topic and then learn and make a difference. Become active in your community, school, club, and home.

- Develop an interest and understanding of environmental sciences and sustainable practices and technologies.
- Develop problem solving and logical reasoning skills, then apply them to environmental issues.
- Improve communication and teamwork skills by working the way scientists and engineers do - in teams.
- Develop responsible attitudes about science and how science relates to the real world, people's lives, the environment we all depend on.
- Gain experience in problem solving and decision-making using science process skills.
- Develop knowledge and skills related to environmental stewardship.

Here's what you can do all year!

Starting Out Basic / Level 1

- Choose an environmental focus (bugs, prairie, energy)
- Observe life cycles of animals that interest you
- Learn about energy cycles
- Create a collection and learn how to mount it (leaves, seeds, insects)
- Shadow or interview a local environmentalist
- Find out about Iowa's energy sources.

Learning More Intermediate / Level 2

- Learn about different species on your vacation. Record habitat data about them
- Learn about tree diseases
- Plan and conduct experiments to test ideas
- Volunteer at an eco fair for your community
- Study an environmental issue (acid rain, global climate change, soil erosion)
- Learn how to set up apiaries

Expanding Horizons Advanced / Level 3

- Conduct a forestry quiz bowl for your community
- Organize a community service learning project to weatherize homes
- Monitor water quality with the IOWATER program
- Investigate the potential of various energy sources to power Iowa homes
- Enter a research project in a science or technology fair



Take Environment & Sustainability further!

Here are other opportunities to explore the environment and sustainability:

- Contact your county ISU Extension Office for local workshops, activities, and events. <http://www.extension.iastate.edu/content/county-offices>
- Meet others interested in the environment? Check out 4-H camps and the Iowa 4-H Center. <http://www.extension.iastate.edu/4h/camping>
- Study an area of environmental science and enter the State Science and Technology Fair of Iowa. <http://www.sciencefairiowa.org/>
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned. It might get selected to go to the Iowa State Fair. <http://www.extension.iastate.edu/4h/statefair>
- Look for opportunities with your County Conservation Board. www.mycountyparks.com
- Become an "official water quality monitor" by attending an IOWATER workshop with the Iowa DNR. www.iowater.net/Workshops/IntroductoryWorkshops.htm
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community. <http://www.extension.iastate.edu/4h/StateConference/>
- Interested in a college education in the fields related the environment and sustainability? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Develop a presentation or working exhibit that shows how to make a solar oven.
- Do a presentation on how to do a home energy audit.
- Can you identify local trees? Make a poster to help others learn.
- What attracts butterflies to your garden? Find out and share your findings in a video.
- How has Iowa's wildlife changed through the years? Create a timeline with visuals of significant events.
- Create a survey on what other youth think and feel about today's environmental issues. Tweet your friends and keep a tally. Report out through a poster, video, etc.
- Create a video on pros and cons of sun, wind, nuclear, coal power.
- Develop a workshop that shows others how to be good environmental stewards.
- Create a new recipe. Write and illustrate a cookbook about catching and cooking fish.
- Create an original piece of artwork using natural objects. Explain how the objects are connected.
- Develop a display or notebook on forest diseases.

Resources

4-H Resources	More Resources	Record Keeping
<ul style="list-style-type: none"> • The Power of the Wind http://www.4-h.org/resource-library/curriculum/4-h-the-power-of-the-wind/ • Exploring Your Environment http://www.4-h.org/resource-library/curriculum/4-h-exploring-your-environment/ • Fishing http://www.4hifishing.org/ • Forestry http://new.4-hcurriculum.org/projects/forestry • There's No New Water http://www.4-h.org/resource-library/curriculum/4-h-theres-no-new-water/ • Project Butterfly Wings https://www.flmnh.ufl.edu/wings/ • Entomology http://www.4-h.org/resource-library/curriculum/4-h-teaming-with-insects/ 	<ul style="list-style-type: none"> • 4-H2Online http://www.4-h.org/youth-development-programs/4-h-science-programs/environmental-science-alternative-energy/4h2online/ • National Youth Science Day Activities http://www.4-h.org/4-h-national-youth-science-day/past-experiments-archives/ • 4H Making an Entomology Exhibit https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=360 • Department of Energy www.energy.gov/forstudentsandkids.htm • Wind Energy Science Education www.kidwind.org • National Wildlife Federation www.nwf.org/ 	<p>Find all your record keeping tools at: http://www.extension.iastate.edu/4h/page/record-keeping</p> <ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

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4-H
GROWING TOGETHER

4-H FOOD AND NUTRITION PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Teach friends how to make healthy snacks
- Tell your family about the importance of eating a variety of foods from all the food groups
- Design a poster about kitchen safety

Citizenship

- Bake with the elderly at a care center
- Volunteer at a food pantry
- Offer locally grown food sampling at grocery store

Leadership

- Take responsibility for preparing one family meal each week
- Plan and help prepare food for a special family event
- Create a club fundraiser around food

4-H
GROWING TOGETHER

Are You Into It?

This project area designed to help you do fun experiments, prepare flavor-filled recipes, and go on fact-finding missions. You'll have fun learning about food ingredients, food characteristics, and food safety.

- Use My Plate (USDA) information to make healthy food choices
- Understand principles of nutrition related to health, physical fitness, and appearance
- Learn how to prepare and store foods safely
- Understand the scientific principles of nutrition
- Acquire and demonstrate skills in planning, purchasing, preparing and serving tasty and nutritious meals

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Learn how to read a recipe • Learn how to use measuring equipment • Make healthy snacks • Do fun food experiments • Make homemade pizza • Make a breakfast food • Compare costs of purchased and homemade • Learn how food spoils • Learn how to keep your kitchen germ free • Learn to safely use the microwave 	<ul style="list-style-type: none"> • Prepare a grocery list and go grocery shopping • Compare food costs • Learn safety know-how in the kitchen • Learn how to safely prepare and store foods • Explore low fat alternatives • Make healthy fast food choices at home, at school and eating out • Prepare easy meals 	<ul style="list-style-type: none"> • Plan and prepare a meal • Gain skill in evaluating nutrition information • Understand the connection between eating and emotions • Learn about food additives • Learn how to preserve and dry foods • Prepare foods in healthy ways • Learn to purchase foods on a limited budget • Explore careers in the food industry



Take Food and Nutrition further!

Here are other opportunities to explore Food and Nutrition:

- Create your own food preparation business
- Organize a food drive for your community
- Create a portfolio of your favorite recipes
- Participate in 4-H Cook This! at the Iowa State Fair
- Keep a journal of foods eaten and calories consumed
- Plan menus for a week, make a grocery list and go grocery shopping
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show what you have learned throughout the year. It might get selected to go to the Iowa State Fair
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in food and nutrition - Check out camps at the Iowa 4-H Center
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Interested in a college education in the area of food and nutrition or culinary science? Schedule a visit with Iowa State University's College of Human Sciences or Ag & Life Sciences. www.iastate.edu.

Exhibit Ideas

- Learn to read food labels
- Experiment with altering recipes and share results
- Compare cost of purchased vs. home made
- Plan a special meal for your family
- Make a recipe calendar for a gift - include a recipe for each month
- Assemble a set of favorite recipes
- Research sports drinks vs. water - share results via poster

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Food and Nutrition www.extension.iastate.edu/4h/projects/foodandnutrition • Fantastic Foods National 4-H Foods www.four-h.purdue.edu/foods/ • Six Easy Bites (4H 445A) • Tasty Tidbits (4H 445B) • You're the Chef (4H 445C) • Foodworks (4H 445D) • Food & Nutrition – Additional Leader & Member Guide (BU-7730) • Cook This! www.extension.iastate.edu/4h/StateFair/cookthis.htm 	<ul style="list-style-type: none"> • ISU Extension Kids & Teens Food & Nutrition www.extension.iastate.edu/kidsteens/foodnutrition/ • ISU Extension Kids & Teens Food Nutrition & Health publications http://www.extension.iastate.edu/store/ListItems.aspx?CategoryID=47 • Eat to Compete www.extension.iastate.edu/human-sciences/sports-nutrition • Eat smart spend smart http://www.extension.iastate.edu/foodsavings/ • My Plate (United States of Agriculture): http://www.choosemyplate.gov/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

4-H HEALTH PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Show club members how to treat bee and wasp stings
- Teach your club a new game to raise their heart rates
- Prepare a poster about how to stay safe in case of disaster

Are You Into It?

From treating bug bites to finding safe playgrounds to starting a Kids Walk to School program - the 4-H Health project helps you explore health and wellness in your personal life as well as your home, club, community, country, and world.

- Learn how to take care of your own physical, intellectual, emotional, and social health
- Practice a healthy lifestyle and share what you have learned with others
- Learn about health and wellness resources in your community and state
- Learn about environmental issues as they affect health
- Learn to make decisions and take action that positively affects your health, your family's health, and your community's health

Here's what you can do all year!

Citizenship

- Organize a 4-H group to assemble first aid kits
- Conduct a playground safety check in your community
- Perform a building safety check at your club meeting site

Leadership

- Volunteer to be the club health and safety officer
- Organize a 4-H health club
- Write a grant for sport safety equipment for your community
- Demonstrate how to make power snacks at a club meeting

4-H
GROWING TOGETHER

Starting Out Basic / Level 1

- Learn basic safety and first aid skills
- Learn about poisons and how to keep you and your family safe
- Develop a family safety plan
- Identify safe places to play in your community
- Learn how to be safe around pets, strange dogs, and wildlife
- Learn about fire safety
- Learn about careers in emergency medicine

Learning More Intermediate / Level 2

- Create a personal health and wellness care plan
- Learn about germs and how they affect your health
- Learn how to choose food for fuel
- Discover new ways to add physical activity to your life
- Explore new foods to keep you healthy
- Explore environmental health issues that might be in your community
- Learn about careers in the health field

Expanding Horizons Advanced / Level 3

- Learn about sports supplements and their effectiveness
- Explore how hydration affects the body
- Learn how to avoid sports injuries
- Explore what nutrient rich foods are and how they benefit your body
- Explore careers in the fitness and nutrition fields
- Investigate community health issues like: bullying, safe driving, disaster management plans



Take Health further!

Here are other opportunities to explore Health:

- Create a recreation/activity plan for your club and lead the activities
- Evaluate on-line resources related to health and fitness – are they trustworthy?
- Visit with your county risk management office and learn how prepared your county is for a natural disaster
- Encourage your fellow club members to enroll in Red Cross First Aid and CPR classes
- Lead age-appropriate physical activity sessions at your local senior center
- Explore how mental and emotional health are connected to physical health
- Is it fair time? Consider taking some of your health project learning to the fair for judging and demonstrate what you have learned through the year
- Learn about the Kids Walk to School program and begin one in your community
- Explore careers in the health and wellness field
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in health; Check out camps at the Iowa 4-H Center
- Interested in a college education related to health? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Create first aid kits for your home and club
- Develop a self health plan
- Make a poster on water hydration and exercise
- Make a poster on sports injury
- Give a demonstration on wrapping to prevent or after sports injury
- Design a poster on farm safety
- Design a poster on dental care for babies and toddlers
- Give a demonstration about careers in the health field
- Make a poster on the pros and cons of antibacterial soap
- Give a demonstration on bicycle safety
- Create a poster about how nutrients affect your body
- Demonstrate how to use protective gear for outdoor sports
- Create a skit about what to do in an emergency situation
- Create a share the fun skit that gets the audience up and moving to raise their heart rate
- Prepare a selection of nutrient rich foods and provide samples for your fellow club members to try. Explain how the foods help your body function at top performance
- Teach proper stretching exercises and techniques to your club members

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Health www.extension.iastate.edu/4h/projects/health • National 4-H Health http://new.4-hcurriculum.org/catalog.aspx?cid=189&c=Health and Fitness • First Aid in Action (4H 480A) • Staying Healthy (4H 480B) • Keeping Fit (4H 480C) 	<ul style="list-style-type: none"> • Girls Health www.girlshealth.gov/ • Young Men's Health www.youngmenshealthsite.org/ • Kid's Health http://kidshealth.org/kid/ • Kid's Safety www.cpsc.gov/kids/kidsafety/index.html • Stop Bullying Now http://www.stopbullying.gov • Careers in Public Health http://shl.uiowa.edu/edtrain/tools/didyouseethat.xml • National Program for Playground Safety www.uni.edu/playground/safety/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

4-H HOME IMPROVEMENT PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Share with friends how to select a color scheme for their bedroom
- Develop a step-by-step checklist showing how to cover a headboard using padding and fabric
- Create a video showing how to be energy efficient in homes

Citizenship

- Assist an elderly person with painting their living room
- Share with family and friends how to keep living spaces safe
- Show local museum staff how to properly arrange, protect, and display historical items

Leadership

- Show siblings how a shared space can be divided using furniture placement
- Teach adults proper disposal methods of refinishing materials
- Work with a non-profit in creating a functional meeting space floor plan

4-H
GROWING TOGETHER

Are You Into It?

Have fun learning how to design your space while being kind to the environment. If you are interested in creating a new color scheme, selecting new accessories for a room, or choosing new floor and window covers, this is the project for you.

- Master the elements and principles of design to make your house a home
- Plan home living spaces in keeping with the needs of family members
- Develop your skill in caring for home furnishings and accessories
- Explore opportunities for environmentally friendly choices in your home

Here's what you can do all year!

Starting Out Basic / Level 1

- Learn the language of home improvement: design elements and principles
- Plan and design your own space with new techniques
- Uncover and compare costs to design and accessorize your space
- Practice choosing wall treatments, window coverings, and floors
- Discover how paint, wall treatments, flooring, and window coverings create different effects in a

Learning More Intermediate / Level 2

- Get the 411 on furniture styles
- Plan your space using needs, wants, and timelines to make choices
- Create design boards to visualize living spaces
- Learn helpful strategies for developing shopping lists
- Coordinate fabrics and patterns
- Effectively reduce clutter and stash your stuff
- Take care of your furniture possessions
- Experiment with the arrangement of photos on a wall for different effects

Expanding Horizons Advanced / Level 3

- Select fun accessories for the finishing touch
- Showcase favorite room accessories
- Install bright lighting ideas
- Create personality in a shared space
- Use natural resources effectively
- Be in the know with energy efficient products
- Examine environmentally friendly practices: reduce, reuse, recycle, and rethink
- Investigate energy wasters in the home



Take Home Improvement further!

Here are other opportunities to explore Home Improvement:

- Contact your County Extension Office to participate in local home improvement camps and workshops
- Consider taking an exhibit, a piece of your project learning, to the county fair for judging and show friends and family what you learned throughout the year - you might get selected to attend the Iowa State Fair
- Explore online design career fields such as interior design, landscape architecture, professional organization, home staging, community and regional planning, marketing, publishing, and advertising
- Job shadow professionals concerned with home environmental issues: energy, lighting, landscape, recycling, and eco-friendly cleaning products
- Design, create, and market soft furnishing accessories to sell at local craft shows
- Gather a group of friends interested in interior design and volunteer to redesign and rearrange a room at your school to make the area more functional
- Work with local partners to establish a community day for the free disposal of paint materials and solvents
- Start a wood salvage shop where old wood furnishings and wood scraps are available to the public for reusing and repurposing
- Interested in a college education in the area of design? Schedule a visit with Iowa State University's College of Design to explore potential majors <http://www.design.iastate.edu/>

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Home Improvement www.extension.iastate.edu/4h/projects/homeimprovement.htm • Design Decisions (4H 491) • Pulling it Together (4H 492) • Design: Exploring the Elements and Principles (4H 634) • Color Wheel (4H 633) 	<ul style="list-style-type: none"> • Design Decisions www.4h.unl.edu/designdecisions • Iowa State University Extension Home and Family www.extension.iastate.edu/homefamily/housing/ • Careers in Interior Design www.careersininteriordesign.com • ArtsConnectEd http://artsconnected.org/toolkit • Google SketchUp http://sketchup.google.com/ • American Coatings Assoc. www.paint.org • Ecological Footprint www.myfootprint.org/en/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

Exhibit Ideas

- Take photos of home decoration that demonstrates the use of design elements and principles
- Compare the pros and cons of sponging, rag-rolling, stenciling, and stamping walls
- Refinish a family antique chair, table, stand, or dresser
- Illustrate how various wall coverings and flooring have different effects in living spaces
- Create a poster that provides examples of elements of different furniture styles
- Develop a design board showing how an existing floor plan can be transformed to a more functional floor plan
- Compare the effectiveness of different products in removing stains from hard and soft home furnishings
- Illustrate the different effects of light quality based on bulb type, shade size, lamp height, and wall color
- Identify the pros and cons of starting an organizational business to help clients develop spaces for items they use and need
- Use a model kit to build a solar home showing how the sun's energy can be used to heat a home
- Showcase a home improvement item you created in your first, second, and third year in the project describing new skills learned and used
- Make a pillow to fit with a room's color scheme
- Make a cleaning tote to carry from room to room

4-H HORSE AND PONY PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Present about parts of a horse
- Send a Letter to the Editor describing your opinion regarding an ethical horse situation
- Present a riding safety session at your county 4-H horse workouts prior to county fair

Citizenship

- Assist with the 4-H horse show at the county fair
- Participate in the local saddle club charitable benefit
- Ask friends to always wear a helmet when riding horses
- Explore therapeutic riding and horse rescue assistance opportunities

Leadership

- Lead a trail ride for your fellow 4-H horse project members
- Work with a horseless horse member to care for a horse
- Conduct a show horse grooming clinic
- Organize a tack swap for 4-H members

4-H
GROWING TOGETHER

Are You Into It?

Horse and Pony is an exciting 4-H project area because you can participate whether you own a horse or not! Discover all the aspects about raising and riding horses.

- Appreciate riding as recreation
- Learn horsemanship skills and understand breeding, training, and raising of horses as a business
- Acquire skills in horse management by owning and being responsible for an animal
- Acquire safety skills to prevent injury to persons and animals

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Learn about basic horse care • Identify parts of a horse • Learn breeds of horses • Learn the gaits of the horse • Understand horse reproduction parts • Learn about genetics and heredity of horses • Investigate horse diseases • Learn how to control parasites • Discover causes of colic • Practice vaccinations • Learn the function of different horse tack 	<ul style="list-style-type: none"> • Learn the basics of trail riding • Check horse vital signs • Learn how to mount and dismount safely • Etiquette to ride safely as a group • Communicate with your horse • Practicing horsemanship maneuvers • Improve your riding style 	<ul style="list-style-type: none"> • Research and purchase show clothing • Improve a show horse's appearance • Improve your showmanship pattern • Riding patterns • Understand the quarter's system • Evaluating ethics in competitive situations



10/01/13

Take Horse and Pony further!

Here are other opportunities to explore Horse and Pony:

- Attend a horse show, rodeo, or other horse event
- Visit a horse farm, horse training facility, horse boarding facility, etc.
- Participate in a horse riding camp
- Visit a local tack shop or horse supply store
- Check out horse events on television to learn about different type of horse shows and events
- Attend the Iowa Horse Fair to watch horse shows and observe clinicians
- Create a collection of horse showmanship and horsemanship patterns
- Keep a diary of your practices each week
- Research horse-related careers
- Attend the Iowa 4-H Horse Jamboree to compete in hippology or quiz bowl
- Give a public speech or team demonstration or compete with a painting, poster, photograph, drawing, essay, poetry, scrapbook, digital story, clothes article, woodworking piece or a model horse
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and take the horse track, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider riding in your County Fair horse show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Horse coloring/marketing patterns
- Horse body parts
- Safety around horses
- Horse health chart
- History of horses
- Horse body language
- Parts-of-a-horse matching game
- Horse-breed comparison chart
- Horse-stable designs
- Knots used with horses
- Tagging a horse
- How to groom a horse
- Supplies price chart
- Horse skeleton diagram
- Display of horse diseases
- Growth chart for your horse
- Dental problems of horses
- How to shoe a horse
- Horse reproductive system
- Pasture management practices
- Horse life cycle poster
- Identify saddle, bridle and tack
- Create a horse first aid kit
- Pre-show fitting techniques
- How-to display for judging horsemanship
- Present a horse using "Quarter System"
- Design your own showmanship pattern
- Create a scrapbook or collage of photos from your horse project

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Horse and Pony www.extension.iastate.edu/4h/projects/horse • Giddy Up and Go Horsemanship Level 1 • Head, Heart, and Hooves Horsemanship Level 2 • Stable Relationships Horsemanship Level 3 • Riding the Range Horsemanship Level 4 • Jumping to New Heights Horsemanship Level 5 • Horsemanship Leader Guide • Horse Science • Horseless Horse Project • Basic Horse Safety Manual 	<ul style="list-style-type: none"> • American Youth Horse Council (AYHC) http://www.ayhc.com • Iowa Horse Council http://www.iowahorsecouncil.org/ • Iowa Horse Judges Directory www.extension.iastate.edu/4h/projects/horse • Horse eXtension Website http://www.extension.org/horses • My Horse University http://myhorseuniversity.com/ • Iowa Horse Show Judges Evaluation Form www.extension.iastate.edu/4h/projects/horse 	<ul style="list-style-type: none"> • Horse and Pony Worksheet Record Keeping (4H 512 WS) • Horse and Pony ID Form (4H 106C) • Horse Lease Agreement (4H 106C L)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H HORTICULTURE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Give a presentation on garden tools or techniques
- Make a video on how to make a water garden
- Teach your club how to identify common garden weeds

Citizenship

- Plant a flower bucket for the fairgrounds
- Adopt a flower bed at a park
- Make a compost bed for a community garden
- Help an elderly or disabled person by planting flowers in their yard

Leadership

- Organize a flower/vegetable sale to raise money for a special cause or for your 4-H club
- Teach a WIC class on using garden produce
- Volunteer to host a stop on a garden tour

4-H
GROWING TOGETHER

Are You Into It?

How does your garden grow? You will learn to plant it, dig it, grow it, show it and eat it.

- Learn to plan, care for, and manage vegetable and/or flower gardens, lawns, or commercial horticultural crops.
- Learn about pest management.
- Learn basic facts about plants and soils
- Apply knowledge by experimenting with plants in a laboratory or in the field.
- Learn about landscaping and water gardens.

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Identify different types of gardens • Grow and maintain a garden • Plant seeds • Learn pest management techniques • Learn how to harvest crops • Examine parts of a plant and discover the function of the parts • Learn to identify and use common garden tools 	<ul style="list-style-type: none"> • Learn about garden fertilizer and nutrients plants need to grow • Plant bulbs in the fall for spring blooms • Learn to divide plants and transplant favorite specimens • Make a container garden • Learn about compost and make a simple compost bin • Discover different ways to prepare and use garden produce • Sell produce at a farmers market 	<ul style="list-style-type: none"> • Start an herb garden • Learn about food preservation methods • Take a soil sample and have it tested for nutrients • Learn about Integrated Pest Management for the yard or garden • Experiment with organic production • Design an experiment • Test different varieties or management techniques • Design a landscape plan for your home



02/01/11

Take Horticulture further!

Here are other opportunities to explore horticulture:

- Expand your garden and sell produce at farmers markets or to local restaurants
- Learn about locally grown foods
- Design an experiment and share the results at your school science fair.
- Collect seeds and gardens supplies, and then donate them to a local organization.
- Help children plant a garden at a local daycare or school
- Job-shadow at a local nursery or farm to explore careers that interests you
- Attend Iowa 4-H Youth Conference and participate in CSI: Crops and other workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in horticulture. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of horticulture or landscape design? Schedule a visit with Iowa State University to explore those majors: www.hort.iastate.edu or www.design.iastate.edu

Exhibit Ideas

- Exhibit vegetables, herbs or flowers at the county or state fair.
- Make a poster about parts of a plant.
- Build a compost bin or rain barrel.
- Prepare an exhibit on how to use fresh herbs in cooking.
- Create a notebook of common plants for a butterfly garden.
- Create design a landscape for home.
- Compare pepper varieties. Keep a record and show the results in a display.
- Make planters for accessible gardening.
- Prepare a poster showing proper harvest times for vegetables.
- Display different types of mulch for the garden.
- Make a cost comparison of starting your own seeds vs. buying transplants. Show the results on a poster.
- Create your own garden calendar.
- Conduct a taste comparison of different varieties.

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Harvesting and Preparing Vegetables for Exhibit (4H 462) • Preparing Cut Flowers and Houseplants for Exhibit (4H 464) • See them Sprout, Gardening Level 1(4H 465A) • Let's Get Growing, Gardening (Level 2 4H 465B) • Take Your Pick, Gardening Level 3 (4H 465C) • Growing Profits, Gardening Level 4 (4H 465D) • Vegetable Gardening Leader Guide (4H 465 LDR) 	<ul style="list-style-type: none"> • Home Landscape Planning Worksheet: 12 Steps to a Functional Design (PM 612) • Perennials for Shade (PM 1913) • Perennials for Sun (PM 1914) • Iowa State University Extension Hortline (515) 294-3108 or email hortline@iastate.edu • ISU Master Gardener www.mastergardener.iastate.edu • Connecting, Learning & Living • Composting Just for Kids • Kidsgardening.com 	<ul style="list-style-type: none"> • Record your garden's progress in a journal or log • Keep a calendar – include planting dates, weather, pest management applications, fertilizers, etc. • 4H 462 WS Vegetable Garden Project Worksheet • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C)

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H LEADERSHIP PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Notify families about club activities
- Give a presentation on parliamentary procedure or other decision-making methods
- Create a club web page
- Write a letter to an elected official about an issue that's important to you or your community
- Conduct Club Officer training
- Create a video to promote 4-H

Are You Into It?

Leaders influence and support others in a positive manner for a shared goal. Leaders aren't just elected. You can be a leader of committees, small groups and teams. Learning about yourself and how you work with others is a key part of developing leadership skills.

- Understand roles, attitudes, tasks and functions necessary for effective leadership.
- Strengthen local 4-H units in leadership responsibility and encourage other youth.
- Participate in program planning, development, and implementation; help recruit new members and leaders.

Here's what you can do all year!

Starting Out Basic / Level 1

- Job shadow or interview a local leader
- Take responsibility for a weekly chore in your home
- Plan and present a fun club activity
- Identify non-verbal communication behaviors
- Create a weekly schedule for you and your family
- Work with your family to organize a space in your home
- Utilize your county ISU Extension and Outreach office as a resource for ideas and materials

Learning More Intermediate / Level 2

- Make a list of what motivates you; interview others to find out what motivates them and compare the lists
- Identify characteristics of a good leader and how leaders develop trust
- Practice and deliver a presentation
- Identify talents in your club, group or community
- Work with members to establish ground rules for club meetings
- Experiment with different group decision making techniques

Expanding Horizons Advanced / Level 3

- Plan and present a project workshop
- Run for office in your club
- Create a list of your strengths and weaknesses
- Practice interviewing with an adult
- Write a personal vision and mission statement
- Plan a meeting
- Develop and implement a school survey of students, teachers and administrators
- Identify various leadership styles
- Volunteer as Youth Leader for your local Clover Kids group

Citizenship

- Make arrangements for your club's next service project
- Investigate a historical leader and share their accomplishments
- Volunteer to serve on a committee for your next town celebration
- Mentor a younger member with record-keeping and preparing exhibits for fair
- Join a political campaign for a candidate you support
- Serve on a local board that deals with youth issues

4-H
GROWING TOGETHER



11/20/13

Take Leadership further!

Here are other opportunities to explore Leadership:

- Volunteer to serve on your county 4-H Youth Committee.
- Conduct a workshop at the State 4-H Volunteer Retreat.
- Mentor a younger youth in 4-H in a skill area you have learned.
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events.
- Meet others interested in leadership. Check out camps at the Iowa 4-H Center.
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community.
- Apply for National 4-H Congress, National 4-H Conference, State 4-H Council, a Counselor-In-Training position at the Iowa 4-H Center, a Page position at the State Legislature, volunteer or paid positions at the Iowa State Fair.
- Interested in a college education in the area of political science, business administration, teaching, public service administration in agriculture or community and regional planning? Schedule a visit with Iowa State University and explore those majors.

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Leadership www.extension.iastate.edu/4h/projects/leadership • Step Up to Leadership Level 1 (4H 531A) • Step Up to Leadership Level 2 (4H 531B) • Step Up to Leadership Level 3 (4H 531C) • Step Up to Leadership Leader Guide K-5 (4H 530 LDR) • Step Up to Leadership Leader Guide 6-12 (4H 531 LDR) • 4-H Leadership Brochure (4H 4003B) 	<ul style="list-style-type: none"> • Vibrant 4-H Club Brochure www.extension.iastate.edu/4h/Volunteers/Documents/4h4004vibrant.pdf • 4-H Club Committee Resource www.extension.iastate.edu/4H/Volunteers/Documents/ClubCommitteeMember.pdf • Youth Leadership Initiative http://www.youthleadership.net/ • America's Rising Stars http://www.americasrisingstars.cc/ • Team Builder Resources http://karlrohnke.com/index.html • 4-H Recreation Ideas www.extension.iastate.edu/clay/info/recreation.htm 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

Exhibit Ideas

- Make a poster with a timeline to demonstrate a historic leader's rise and accomplishments
- Exhibit a calendar or log of weekly responsibilities in your home
- Create before and after photos of a room you organized, focusing on the development of your organizational skills
- Give a presentation on the elements of an effective meeting
- Develop a graphic organizer to showcase the talents in your club or community
- Visually represent on a display the timeline and your process of leading a community service project
- Create a poster sharing a club contract your group has created and share how your group came up with it
- Create a series of workshops teaching other 4-Hers a project skill. Video tape and put them up on the web so others have access
- Take a personal inventory to analyze your leadership style and share a journal or display about what you learned and how it affects your work in groups
- Create a scrapbook showing your leadership roles in the clubs or organizations you participate in
- Create a resume showcasing your skills, strengths

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H MEAT GOAT PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on parts of the animal
- Participate in a judging contest giving oral reasons
- Explain the cuts of meat and how to prepare them

Are You Into It?

In the meat goat project you can learn about breeds, health care, grooming, production, reproduction, management, showmanship, marketing, and careers! Learn about the fastest growing livestock project area in the country!

- Learn the basic principles of animal science by owning, caring for, and keeping records on one or more head of livestock
- Gain knowledge of sound breeding, feeding, and management practices
- Identify quality in wholesale and retail cuts of meat to understand the relationship to management principles

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Look at healthy and sick animals • Be a good sport when showing your animals • Produce a healthy and safe meat product • Identify different breeds • Locate and name parts of a goat • Learn proper feeding of goats • Tell the difference between milk-type and meat-type goats • Develop a home medical kit for goats • Learn about fencing options 	<ul style="list-style-type: none"> • Learn about body condition scoring • Identify and record the types of plants on your property • Develop a predator control program • Determine breeding dates • Learn about manure management programs • Research goat meat markets • Construct a model of a soil profile • Research goat health issue • Learn to trim hooves 	<ul style="list-style-type: none"> • Measure level of parasite infestation in your herd • Conduct a judging clinic • Select a herd sire • Judge with oral reasons • Formulate a ration • Measure your pasture's productivity • Examine meat goat products • Investigate land zoning issues • Prevent reproductive diseases • Learn about buying & producing good quality hay

Citizenship

- Volunteer a goat for a hall of breeds
- Hand out food samples at your local grocery store
- Volunteer to help at the county fair market goat weigh-in

Leadership

- Invite other 4-H members to tour your farm
- Teach others how to safely handle goats
- Lead a meat goat selection and feeding clinic
- Secure sponsorship for goat related awards

4-H
GROWING TOGETHER



Take Meat Goats further!

Here are other opportunities to explore Meat Goats:

- Contact your county ISU Extension office for other local workshops, activities, and events
- Tour a meat goat operation
- Attend a meat goat show or workshop
- Participate in a meat goat judging team
- Design a business plan to market goat meat directly to retailers, restaurants, or private customers
- Design a business card or marketing brochure for your farm or imaginary farm
- Write an educational article about some aspect of goat production for your newspaper
- Watch a vet do a c-section on a goat with pregnancy ketosis
- Write a children's book called "My Visit to a Goat Farm"
- Research goat by-products
- Research other cultures that rely solely on goats for meat consumption
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and participate in one of the livestock tracks, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair meat goat show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu
- Participate in a meat goat fitting contest
- Develop a project income/expense sheet
- Build a kidding barrel
- Build a show box

Resource

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Meat Goats www.extension.iastate.edu/4h/projects/Livestock/goat.htm • Just Browsing Level 1 (4H 650A) • Growing with Meat Goats Level 2 (4H 650B) • Meating the Future Level 3 (4H 650C) • Meat Goat Leader Guide (4H 650 LDR) • Meat Goat Verification Form (4H 106G) 	<ul style="list-style-type: none"> • Iowa Meat Goat Association www.iowameatgoat.com/ • American Meat Goat Association www.meatgoats.com • American Boer Goat Association www.abga.org • United States Boer Goat Association www.usbga.org 	<ul style="list-style-type: none"> • Market Animals <ul style="list-style-type: none"> - Record Worksheet (4H 228JR) - Project Worksheet (4H 228WS) • Breeding Animals <ul style="list-style-type: none"> - Record Worksheet (4H 229JR) - Project Worksheet (4H 229WS)

Exhibit Ideas

- Participate in the 4-H meat goat show
 - Breeding does
 - Market goats
 - Showmanship
 - Rate of gain
- Consider an exhibit, notebook or display showing what you've learned in a meat goat-related topic
 - Nutritive value of meat goats
 - Meat cuts and proper preparation
 - Feeding rations
 - Preventative vaccinations
 - Photos of different breeds
 - Daily routine in caring for animals
 - Grooming techniques
 - Developing a breeding herd
 - Build a kidding barrel
 - Identification techniques
 - Growth of the meat goat industry
 - Build a show box
 - Meat goat body parts
 - Proper terminology when describing meat goats
 - How to select and judge a meat goat
 - Describe proper feed rations
 - Learn goat terminology

4-H MECHANICS PROJECT



Step It Up!

Are You Into It?

The Mechanics project examines a range of areas linked to practical applications of power, energy, and electricity. The project includes practical applications based on understanding the basic principles. Experience the technology firsthand while increasing technical and scientific literacy, communications and decision-making skills.

- Learn skills and techniques to construct or repair needed items
- Develop the knowledge of safe practices and procedures
- Develop an understanding of the basic principles and theories of electricity.
- Increase knowledge and concern regarding the generation, transmission, and distribution of electric energy
- Gain experience in Science, Engineering, and Technology abilities

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Present safety information related to mechanical systems
- Demonstrate the workings of a mechanical system
- Teach how to construct or repair a mechanical system

Here's what you can do all year!

Citizenship

- Promote safety related mechanical systems in your community
- Do a small engine repair for the community
- Check friends' homes for electrical safety issues

Leadership

- Organize a safety workshop
- Organize a lawnmower tune-up clinic
- Host a safe/responsible driving presentation
- Give a demonstration on winter driving tips

Starting Out Basic / Level 1

- Understanding safety and equipment used in welding
- Learn about electricity and electronics as they fit into your daily life
- Identify small engines in your home and garage
- Discover how engine work and how they are used in different machines
- Understand the risks and importance of safety related to all mechanical systems

Learning More Intermediate / Level 2

- Learn about different methods of welding and what materials are best suited for each type of welding
- Learn the different types of circuits and how they are compare and how to construct each
- Learn about the parts of your lawn mower and how to make adjustments to the fuel and ignition systems
- Diagnose engine problems and repair engines
- Identify and eliminate risks in using mechanical systems

Expanding Horizons Advanced / Level 3

- Experiment with different welds and beads for joints for constructing product
- Discover how electrical systems supply power to your home
- Practice safe operation of engines and engine driven systems including tractors, combines, mowers, and other applications
- Restore, repair, modify or use engine and drive system knowledge in practical ways with tractors

4-H
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02/01/11

Take mechanics further!

Here are other opportunities to explore mechanics:

- Visit companies that have mechanical departments
- Go online to use mechanics simulations to explore more
- Host an antique tractor show in your community
- Start your own business using what you learn in mechanics
- Start a "Fix This" competition in your club or county
- Explore apprenticeships and internships to learn more about your mechanical interests
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in mechanics. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of mechanics or engineering? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Restore an automobile
- Present or create display on safe/responsible driving
- Prepare poster on "How to Drive Cheaper and Smarter"
- Display comparing properties of gasoline and diesel engines
- Exhibit small engine project
- Give small engine demonstration
- Wind generator design exhibit
- Design a circuit
- Electricity safety poster/display
- Tractor restoration (body)
- Restore a tractor engine
- Tractor safety poster [to keep in the same form----Construct (or create or display) a safety poster]
- GPS-guided information poster
- Prepare an educational exhibit on welding safety
- Prepare welding project

Resources

4-H Resources

- Exploring 4-H Automobile Restoration Opportunities (4H 232)
- Online 4-H Small Engine Project <http://www.4-h.org/resource-library/curriculum/4-h-small-engines/>
- Arcs and Sparks: Shielded Metal Arc Welding <http://estore.osu-extension.org/productdetails.cfm?PC=2565>
- Electricity Projects Level 1-4 (4H 410A) (4H 410B) (4H 410C) (4H 410D)
- Small Engine Projects Level 1-3 (4H 715A) (4H 715B)

Other Resources

- The Fabricator <http://www.thefabricator.com/>
- "How-to" Books
- Shop Manuals for model you are working on
- Classic Motorbooks
- Hemming Motor News
- Univ. of Wisconsin Electricity <http://4h.uwex.edu/onlinpro/electricity.cfm>
- Electrical Worker's Union <http://www.ibew.org/>
- The Iowa Energy Center www.energy.iastate.edu
- Service Manuals
- Equipment magazines
- Gas Engine Magazine

Record Keeping

- 4-H Yearly Summary (4H 0096)
- Basic 4-H Project Record (4H 0096A)
- Experienced 4-H Project Record (4H 0096B)
- Advanced 4-H Project Record (4H 0096C)
- Recordkeeping Self-Evaluation (4H 98, PDF)

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4-H
GROWING TOGETHER



4-H MUSIC PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Create a poster to promote musical performance
- Write a review of a musical performance for your school or local newspaper
- Write a poem and set it to music

Citizenship

- Perform at community events or a nursing home
- Assist with Sunday school music at your church, temple, etc.
- Volunteer to sing the national anthem at community sporting events

Leadership

- Organize a talent show to increase awareness of the musical talents of other 4-H'ers
- Organize a club outing to a musical performance
- Volunteer to teach or lead music at a 4-H day camp

4-H
GROWING TOGETHER

Are You Into It?

Music rocks! It's all around us. It's in movies, TV, radio, i-pods, computers, school, concerts, and well, just about everywhere! Music sets the mood and is the focus for voice or instrumental performances. Challenge yourself to learn or increase your skill level!

- Enhance your performance skills
- Explore various types of music
- Compose or arrange music
- Make your own musical instruments

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Perform your music in different places; compare how location affects your sound • Interview members of your family about their favorite music • Investigate the role of a music conductor or director • Identify an event or place you'd like to perform (4-H share-the-fun, senior center, service clubs, or shopping mall); plan out your performance and perform 	<ul style="list-style-type: none"> • Dig into the works by a single composer or performer (solo or group) • Seek out music you usually do not listen to; compare with music you usually listen to • Discover what it takes for a group of musicians to stay together for a long time • Survey radio stations in your area and find out how they decide what music to play • Trace a musical style such as jazz or baroque 	<ul style="list-style-type: none"> • Compare and contrast different arrangements of the same piece of music • Write your own piece of music and have someone else test it out • Compose lyrics for an existing melody • Trace the history of an instrument that interests you • Explore the size, shape and materials of different instrument classes (woodwinds and brass) or instruments within a class (viola and violin)



Take Music further!

Here are other opportunities to explore Music:

- Participate in your county's Share-the-Fun event and compete for the opportunity to participate at the Iowa State Fair
- Perform with a community band or chorus
- Find a 4-H Song book and learn about the history of 4-H songs
- Tour a recording studio and learn about producing a musical recording
- Record your own performance!
- Visit a music museum and learn about the history of an artist, instrument, or musical style
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show what you have learned throughout the year. It might get selected to go to the Iowa State Fair
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in music! Check out camps at the Iowa 4-H Center
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, even participate in the talent show.
- Interested in a college education in the area of music? Schedule a visit to Iowa State University's Music Department. www.music.iastate.edu/

Exhibit Ideas

- Develop your musical abilities and perform music
- Learn about and report on a particular style of music and its history
- Compose or arrange music
- Report on a particular composer
- Report on how a musical instrument is made and how it affects sound
- Make a poster listing common musical notations
- Trace the history of an instrument over time and changes made - exhibit a timeline
- Interview an organizer of musical performances about how advertising affects attendance; create a display about what you learned
- Organize and participate in Share the Fun with other club members
- Report on how music is used to add meaning or heighten emotions in films or TV shows
- Report on the relationship of music to movement, such as in dance, marching, or ice skating
- Record yourself performing; Exhibit your recording

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Music www.extension.iastate.edu/4h/projects/music • Music Project Guide (4H 620 MP) 	<ul style="list-style-type: none"> • Play Music.org www.playmusic.org/ • NY Philharmonic www.newyorkphilharmonic.org/ • Music Theory www.musictheory.net/ • Kennedy Center's ArtsEdge http://artsedge.kennedy-center.org/artsedge.html • Blank Sheet Music www.blanksheetmusic.net/ • Instrument Encyclopedia www.si.umich.edu/CHICO/instrument/ • Music Resources www.lib.iastate.edu/collections/eresourc/music.html 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

4-H OUTDOOR ADVENTURES



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Do a presentation on benefits of biking
- Create a "How to tie knots" poster
- Do a working demonstration on how to set up a tent or equip a safe bike
- Create a blog on hot spots for fishing or great places to canoe

Citizenship

- Volunteer to clean up community campgrounds or trails
- Help out at your local County Park
- Serve as a camp counselor
- Plan an event at your local park
- Map trees in city parks using GPS

Leadership

- Clean up a pond or lake in your area to help the fish environment
- Help catch fish for a fish fry to raise money for a charity
- Plan an adventure for kids in your community
- Teach younger kids how to bait and cast a line

4-H
GROWING TOGETHER

Are You Into It?

Do you like being outdoors? You can become the ultimate explorer by designing your own outdoor adventure! Choose from backpacking, biking, camping, canoeing, fishing or hiking or create your own adventure in the outdoors.

- Develop skills in the adventure you choose (backpacking, biking, camping, canoeing, fishing, hiking or other)
- Plan an outdoor adventure for your club, friends and/or family
- Learn how to be a good environmental steward while engaging in your adventure
- Impress your friends and family with your knowledge, skills and wisdom

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Choose your adventure (biking, camping, canoeing, fishing, hiking, etc.) • Learn about the proper gear for your adventure • Attend a summer camp at the Iowa 4-H Center or with your local 4-H club • Plan an outing for you and a friend or family member • Learn about first aid and safety with the adventure you choose • Find out what "Leave No Trace" means • Practice survival skills in different environments 	<ul style="list-style-type: none"> • Route your adventure using technology like a compass or geospatial mapping • Learn about equipment maintenance for various types of outdoor adventures • Learn how to cast for fish in many situations • Become an Outdoor Iron Chef (learn how to cook outdoor meals) • Plan an overnight outdoor adventure for your family, friends or club • Practice good outdoor manners using Leave No Trace principles 	<ul style="list-style-type: none"> • Teach others about Leave No Trace adventure ethics • Learn to prepare for emergencies in remote areas • Prepare for a big adventure such as RAGBRAI, or a backpack/canoe trip away from home • Start your own geo-caching adventure with your friends



Take Outdoor Adventures further!

Here are other opportunities to explore Outdoor Adventures:

- Register for an Iowa 4-H Center Camp: Pack and Paddle, Outdoor Iron Chef, Trail Trekkers, Climb & Canoe; X-Treme Camp, Vertical Challenge www.extension.iastate.edu/4hcenter/
- Take a Wilderness Trip: Canoe the Boundary Waters or Backpack the Porcupine Mountains, or Horseback Ride through the Colorado High Country with other 4-Hers
<http://www.extension.iastate.edu/4hcenter/>
- Look for opportunities with your County Conservation Board www.mycountyparks.com/
- Volunteer for Iowa DNR: Keepers of the Land www.iowadnr.gov/volunteer/index.html
- Apply for a camp counselor position at the Iowa 4H Center www.extension.iastate.edu/4hcenter/
- Schedule a visit with Iowa State University and explore the following majors:
www.admissions.iastate.edu/majors.php
 - The Environment
 - Education
 - Sports and Exercise Sciences
(Health and Fitness, Community and Public Health, Performing Arts, etc).

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Cooking Over Campfire Coals (4H 802) • Club Camping (4H 803) • Hiking Trails Level 1 (4H 805A) • Camping Adventures Level 2 (4H 805B) • Backpacking Expeditions Level 3 (4H 805C) • Fishing • All resources above can be purchased at http://www.extension.iastate.edu/store • Bicycling http://www.4-hmall.org/Category/4-hcurriculum-bicycle.aspx 	<ul style="list-style-type: none"> • Leave No Trace http://www.lnt.org/ • National Park Service http://www.nps.gov/index.htm • National Wildlife Federation http://www.nwf.org/ Pledge to spend more time outside! 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

Exhibit Ideas

- Develop a presentation showing how to set up and take down a tent (even in the rain!)
- Present on Cooking Outdoors
- Can you start a fire with just one match? Try it! Make a poster showing how you did it
- Can pizza be cooked over a campfire? Find out!
- Investigate the types of fish that are found in your area
- Develop a workshop that shows others how to make knots
- Write and illustrate a cookbook about catching and cooking fish
- Create an original piece of artwork using fish prints or other natural objects or dyes; start a working exhibit
- Plan an overnight camping trip- what to take, where to go; make a poster to share your plan
- Develop a display or notebook on water and boating safety. What things should you know before you go?
- Create a display or notebook to share common wildlife and plants that you will encounter hiking, biking or camping in your county
- Create a notebook on knowing where you are when hiking, biking and camping using a handheld GPS or Maps and compass
- Investigate and present on safety measures if you were to get lost or caught out in a storm

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4-H
GROWING TOGETHER

4-H PETS PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- How to approach a pet safely
- How to prepare a pet for showing
- How to train a pet for exhibition
- How to select a nutritional diet
- How to select a cat, gerbil, hamster, etc. as a pet
- How to make a carrying cage

Citizenship

- Clean up after your pet
- Volunteer at an animal shelter
- Write a letter to your local paper about the importance of having household pets spayed or neutered

Leadership

- Organize a pet show for your club
- Organize a fundraiser to help benefit an animal shelter
- Research and share with others why it's not a good idea to keep wild animals as pets
- Develop a plan to foster pets of deploying soldiers

4-H
GROWING TOGETHER

Are You Into It?

"Lions, Tigers, and Bears, oh my!" Do not make good pets but many other animals do. The 4-H pet project helps you explore what kind of pet fits into your family's lifestyle and how to be an excellent caretaker of your pet.

- Identify breeds and animal species and their characteristics.
- Learn about the selection, care, needs of pets and basic principles of pet behavior
- Demonstrate care and management in feeding, handling, grooming and fitting/showing
- Explore health regulations, first aid, and simple treatments for ailments
- Learn and practice animal ownership responsibilities

Here's what you can do all year!

Starting Out Basic / Level 1

- Gather information and determine the best pet for your family
- Learn about the proper care, grooming and feeding of your pet
- Learn to identify the parts of your pet for conversations with your vet
- Create a plan to prevent your pet from getting lost or finding it if it gets lost
- Purchase and use the appropriate grooming equipment and techniques
- Practice appropriate training for your pet

Learning More Intermediate / Level 2

- Plan a training and exercise program for your pet
- Prepare for participation in a cat or pet show
- Make a decision about breeding or not breeding your pet
- Compare the labels on pet foods to make an informed decision on content and price
- Keep a diary of your pet's health and eating habits
- Do some comparison shopping for setting up an aquarium

Expanding Horizons Advanced / Level 3

- Develop a business plan for a pet care or pet sitting business
- Assess careers related to pets and pet business
- Help a friend make a decision about pet ownership
- Research diseases in pet mammals, birds, and fish
- Identify symptoms and a course of action for a disease in your pet
- How do pets affect the environment



Take Pets further!

Here are other opportunities to explore Pets:

- Contact your county Iowa State University Extension Office for information about local pet related events www.extension.iastate.edu/ou/offices.htm
- Learn about service animals and how they compare and contrast to pets
- If you are interested in veterinary science and taking care of pets, visit with Iowa State University's College of Veterinary Medicine <http://vetmed.iastate.edu/>
- Job-shadow at a local business (pet store, veterinary clinic, breeder, etc.) in a career that interests you
- Explore health safety issues with cats and pets – what diseases do cats and pets have that might make humans ill?
- Explore what kinds of birds make the best pets
- Learn how pet birds and fish arrive at the local pet store. Do breeders in the United States raise them or are they imported from other countries?
- Research all the kinds of parasites your pet might get and how to protect you and your pet
- Research the difference between fresh water fish tanks and salt water tanks
- Sometimes people give bunnies and chicks for presents at Easter – explore the pros and cons
- Explore what kind of restrictions your community might have on pets? Can a pet owner keep a large snake in their backyard – or call a chicken or pot-bellied pig a pet?
- Explore the subject of animal assisted therapy, how it is used and what the benefits are
- If you are in high school, consider attending the annual Iowa 4-H Youth Conference

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Pets www.extension.iastate.edu/4h/projects/pets • The Veterinarian's Way of Selecting a Proper Pet (4H 560A) • Pet Pals Level 1 (4H 563A) • Scurrying Ahead Level 2 (4H 563B) • Scaling the Heights Level 3 (4H 563C) • Pet Leader Guide (4H 563 LDR) 	<ul style="list-style-type: none"> • Service Animal http://en.wikipedia.org/wiki/Service_animal • Animal Assisted Therapy http://en.wikipedia.org/wiki/Animal-assisted_therapy • Healthy pets http://www.cdc.gov/healthypets http://vetmed.illinois.edu/pet_columns http://www.avma.org/firstaid/ • For Cat Fanciers http://kids.cfa.org/index.html • Cats and Wildlife: a Conservation Dilemma http://web.extension.illinois.edu/wildlife/files/cats_and_wildlife.pdf 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)

Exhibit Ideas

- Exhibit your cat or pet at the fair
- Make a first aid kit for a pet. Tell why and how each item is used
- Share diet and nutrition information for raising a healthy pet
- Interview your veterinarian about a microchip to identify your pet; develop a video about options
- Attend a pet show; take photos and make a notebook about pet breeds
- Write a story about famous pets for a younger sibling (Garfield, Lassie, Snoopy)
- Visit a pet store and find as many pieces of cat or pet equipment as you can. Identify necessary equipment and costs
- Make a poster on diseases your pet can get. Tell about its discovery, effects, treatments, etc.
- Research jobs related to pets; make a poster showing three jobs that interest you
- Develop a video showing the steps in training a pet
- Research the country or area your pet came from. Take special note of the people, tradition and other types of animals that live in the area. Design a poster showing your pet's origin
- Design a toy for your pets; tell about your decisions related to safety and cleanliness

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4-H
GROWING TOGETHER



4-H PHOTOGRAPHY PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Tell your friends about the different types of cameras
- Interview a professional photographer
- Demonstrate how to properly present your photos

Citizenship

- Photograph your club activities and make an album to share
- Volunteer to take photos for a community event
- Help archive historical photos

Leadership

- Show your friends how to create trick photography
- Arrange for a guest photographer to present to your club
- Organize a photo shoot for a local organization or your school

4-H
GROWING TOGETHER

Are You Into It?

This 4-H project is designed to help you explore the world of photography. From learning about camera equipment to capturing great images and sharing what you have learned with others, you are bound to love photography!

- Discover how to take fascinating photographs
- Learn about photography as an art, a science and a communication tool
- Observe and enjoy your surroundings in a photographic world
- Explore photography as a hobby or profession

Here's what you can do with it

Starting Out Basic / Level 1

- Get to know your camera
- Use tripods and bracing to steady and level camera
- Try various lighting techniques
- Use flash for fill and solving red-eye
- Study photo composition
- Use different viewpoints
- Take photos of places, people and pets
- Tell a story with photos
- Learn to evaluate photos

Learning More Intermediate / Level 2

- Use shutter speeds and f-stops (aperture)
- Adjust the depth of field
- Capture hard and soft light to create moods
- Manipulate light using flash techniques
- Evaluate composition using the Rule of Thirds, the Golden Triangle and the Golden Rectangle
- Use photos to tell a story
- Take candid photos to capture a moment in time

Expanding Horizons Advanced / Level 3

- Use wide-angle and telephoto lenses
- Use filters and special film
- Use light meter readings
- Practice with light sources
- Use viewpoints, framing and lines to lead the eye
- Use symmetry, shape, pattern, and texture to capture creative photos
- Use specialized equipment and advance techniques



Take Photography further!

Here are other opportunities to explore photography:

- Check out books at the library or visit online sources to learn more about technique, about composition, about copyright and privacy laws, and about the history and future of photography
- Create a portfolio of your best photographs (Take note of what other professionals have done)
- Enter a photography contest or exhibit at an open class exhibition
- Enter a National 4-H photo contest
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show what you have learned throughout the year. It might get selected to go to the Iowa State Fair
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in photography- Check out photography camps at the Iowa 4-H Center
- Apply to participate in Camera Corps, an Iowa 4-H independent photography study
- Join the Iowa 4-H Youth Technology Team
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Interested in a college education in the area of photography? Schedule a visit with Iowa State University's College of Design or Greenlee School of Journalism. www.iastate.edu.

Exhibit Ideas:

- Identify the parts of a camera
- Select, mount, matte a photograph
- Photograph various subject matter
 - Portrait
 - Self Portrait
 - Pets/Wildlife
 - Landscape
 - Panorama
 - Buildings/Structures
 - Night time
 - Reflective
 - Action/Sports
 - Still life
- Experiment with color variation
 - Black/white
 - Sepia
 - Bright color
- Use a computer to render photos
 - Color enhancements
 - Spot color
 - Filters
 - Distortion
 - Type treatment
- Create a photo series
- Present a poster about matting and framing
- Share your photography journal
- Demonstrate enlargement and cropping
- Prepare a display about flash techniques
- Compare types of cameras
- Describe the differences in photo formats (.jpg, .tiff, .eps, .png)
- Create a PowerPoint of event photos or a series of photos
- Produce a short video
- Use photo-editing software
- Give a presentation showing how to edit images
- Analyze lighting techniques

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Photography www.extension.iastate.edu/4h/projects/photography • National 4-H Photography www.4-HPhotography.org • Focus on Photography Level 1 (4H 640A) • Controlling the Image Level 2 (4H 640B) • Mastering Photography Level 3 (4H 640C) 	<ul style="list-style-type: none"> • Kodak www.kodak.com • Focus on Photography www.fodors.com/focus • Professional Photographers of Iowa www.ppiowa.com/ • Iowa State Fair Photography www.iowastatefair.org/competition/fineart-photo.php • Kodak Pocket Guide to Digital Photography (available from your favorite bookseller) 	<ul style="list-style-type: none"> • Photography Worksheet (4H 643WS) • Photo portfolio including artist statements • Photo slideshow or video • Photography scrapbook • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C)

4-H POULTRY PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on parts of the animal
- Participate in a judging contest giving oral reasons
- Explain the cuts of meat and how to prepare them

Citizenship

- Volunteer your bird for a community petting zoo
- Hand out food samples at your local grocery store
- Volunteer to help at the county fair poultry show

Leadership

- Invite other 4-H members to tour your farm
- Teach others how to safely handle poultry
- Lead a poultry selection and feeding clinic

4-H
GROWING TOGETHER

Are You Into It?

In the poultry project you can learn about selection and raising your birds, but also dive into health issues, poultry products and careers!

- Learn the basic principles of animal science by owning, caring for, and keeping records on one or more head of poultry
- Explore knowledge of sound breeding, feeding, and management practices
- Investigate current issues facing the industry and how you can start a career in the poultry business

Here's what you can do all year!

Starting Out Basic / Level 1

- Learn the different types of birds and what they're used for
- Produce a healthy and safe meat product
- Identify different breeds
- Locate and name parts of a bird
- Learn proper feeding techniques
- Be a good sport when showing your animals

Learning More Intermediate / Level 2

- More about nutrients and poultry products
- Compare poultry carcasses and grading
- Explore the difference between class, breed and variety
- Discover how eggs are made
- Candle eggs
- Describe signs of a healthy bird
- Learn effective advertising
- Learn different housing systems

Expanding Horizons Advanced / Level 3

- Conduct a judging clinic
- Manage your flock
- Investigate DNA and genetics
- Outline the steps to poultry processing
- Discover proper food safety techniques from farm to table
- Learn proper cooking techniques
- Investigate ethics in the poultry business
- Start a career in poultry



Take Poultry further!

Here are other opportunities to explore Poultry:

- Contact your county ISU Extension office for other local workshops, activities, and events
- Tour a poultry farm
- Attend a poultry show and observe the judge and their techniques
- Attend a poultry project meeting
- Design a business card or marketing brochure for your farm or imaginary farm
- Write an educational article about some aspect of poultry production for your newspaper
- Participate in a poultry skillathon
- Organize a poultry showmanship contest
- Attend a national poultry conference
- Ride with a local veterinarian to learn about animal health
- Visit a local grocery store to learn proper meat handling techniques
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and participate in one of the livestock tracks, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair poultry show or the Iowa State Fair.
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Participate in the 4-H poultry show
 - Breeding birds
 - Chickens
 - Ducks
 - Geese
 - Turkeys
 - Exotic
 - Market broilers
 - Egg production
 - White egg layers
 - Brown egg layers
 - Showmanship
- Consider an exhibit, notebook or display showing what you've learned in a poultry-related topic
 - Nutritive value of poultry
 - Meat cuts and proper preparation
 - Feeding rations
 - Preventative vaccinations
 - Photos of different breeds
 - Daily routine in caring for animals
 - Grooming techniques
 - Developing a breeding herd
 - Video interview with a poultry producer
 - Best care techniques for newborns
 - Poultry by-products
 - Locally grown foods

Resource

4-H Resources

- Iowa 4-H Poultry
www.extension.iastate.edu/4h/projects/poultry.htm
- Scratching the Surface
Level 1 (4H 656A)
- Testing your Wings
Level 2 (4H 656B)
- Flocking Together
Level 3 (4H 656C)
- Poultry Leader Guide
(4H 656 LDR)

Other Resources

- Iowa Poultry Association
www.iowapoultry.com
- Iowa Egg Council
www.iowaegg.org
- National Poultry Improvement Plan
http://www.aphis.usda.gov/animal/health/animal_dis_spec/poultry/
- National Poultry Registry
www.nationalpoultryregistry.com/
- Pullorum-Typhoid
http://www.cfsph.iastate.edu/Factsheets/pdfs/fowl_typhoid.pdf
- U of MN Poultry Resources
<http://www1.extension.umn.edu/agriculture/poultry/>
- Dept. of Agriculture – Avian Flu
- American Egg Board
<http://www.aeb.org>
- Good Egg Project
<http://www.incredibleegg.org/good-egg-project>

Record Keeping

- [Poultry Project Worksheet](#)
- [4-H Yearly Summary \(4H0096\)](#)
- [Basic 4-H Project Record \(4H-0096A\)](#)
- [Experienced 4-H Project Record \(4H0096B\)](#)
- [Advanced 4-H Project Record \(4H0096C\)](#)
- [Record keeping Self-Evaluation \(4H98\)](#)



4-H RABBIT PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on parts of the animal
- Participate in a judging contest and give oral reasons
- Explain the use of rabbits for meat production

Are You Into It?

In the rabbit project you can learn about selection and raising your animals, but also dive into health issues, management practices and careers!

- Learn the basic principles of animal science by owning, caring for, and keeping records on one or more head of rabbits
- Explore knowledge of sound breeding, feeding, and management practices
- Investigate marketing, project expansion and how you can start a career in the rabbit business

Here's what you can do all year!

Citizenship

- Volunteer your rabbit(s) for a community activity (i.e., nursing home, ag activity, etc.)
- Hand out food samples at your local grocery store
- Volunteer to help at the county fair rabbit show

Leadership

- Invite other 4-H members to tour your farm
- Teach others how to safely handle rabbits
- Lead a rabbit selection and feeding clinic
- Lead a tattoo clinic and project workshops

4-H
GROWING TOGETHER

Starting Out Basic / Level 1

- Learn the different breeds, varieties and ideal weights
- Determine the use of your rabbit projects
- Develop a rabbit care management plan
- Identify rabbit equipment and its uses
- Locate and name parts of a rabbit
- Learn proper feeding techniques
- Discover proper rabbit showmanship steps

Learning More Intermediate / Level 2

- Learn to judge rabbits and give oral reasons
- Discover the difference between 4 class and 6 class
- Explore the different rabbit body types and their function
- Design a plan for preparing rabbits for show
- Learn proper grooming techniques
- Tattoo your rabbits
- Learn about diseases and environment concerns

Expanding Horizons Advanced / Level 3

- Learn about rabbit breeding programs and genetics
- Manage your rabbitry
- Determine pregnancy and palpation techniques
- Design a rabbitry
- Identify bones on a skeleton
- Evaluate rabbit health
- Develop and maintain a rabbit pedigree system
- Market your rabbits to others
- Expand your project into other areas
- Learn to write for a judge at a sanctioned show



Take Rabbits further!

Here are other opportunities to explore Rabbits:

- Contact your county ISU Extension office for other local workshops, activities, and events
- Tour a rabbit producer's farm
- Attend a rabbit show and observe the judge and their techniques
- Attend a rabbit project meeting
- Design a business card or marketing brochure for your farm
- Write an educational article about some aspect of rabbit production for your newspaper
- Participate in a rabbit skillathon
- Organize a rabbit showmanship contest
- Attend a national rabbit conference
- Ride with a local veterinarian to learn about animal health
- Learn about the different uses for rabbits; meat vs. non-meat production
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and participate in one of the livestock tracks, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair rabbit show or the Iowa State Fair.
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Participate in the 4-H rabbit show
 - Standard Bred Rabbits
 - Commercial
 - Fancy
 - Market Rabbits
 - Meat Pen
 - Single Fryer
 - Roaster
 - Presentations and Posters
 - Showmanship
- Consider an exhibit, notebook or display showing what you've learned in a rabbit-related topic
 - Economic value of a rabbit
 - Preparing an emergency medical kit
 - Genetic variations and line-breeding
 - Feeding rations
 - Preventative vaccinations
 - Photos of different breeds
 - Daily routine in caring for animals
 - Grooming techniques
 - Developing a breeding herd
 - Video interview with a rabbit producer
 - Best care techniques for newborns
 - Constructing a nest box
 - How to properly tattoo a rabbit
 - Expanding your rabbit knowledge into other 4-H projects

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Rabbit http://www.extension.iastate.edu/4h/projects/rabbit • What's Hopping Level 1 (4H 663A) • Making Tracks Level 2 (4H 663B) • All Ears Level 3 (4H 663C) • Rabbit Leader Guide (4H 663 LDR) • Rabbits, Rabbits, Rabbits (4H 662) • Rabbit Showmanship Video 	<ul style="list-style-type: none"> • Iowa State Rabbit Breeders Association http://www.iasrba.com/ Check us out on Facebook! https://www.facebook.com/groups/IowaStateRBA/ • American Rabbit Breeders Association www.arba.net • American Satin Rabbit Breeders Association www.asrba.org • American Rabbit Breeders Association Youth Division http://www.arba.net/youth.htm 	<ul style="list-style-type: none"> • Rabbit Project Worksheet • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

4-H SCIENCE, ENGINEERING AND TECHNOLOGY PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Enter a science & technology fair.
- Create an exhibit for your county fair or do an educational presentation.
- Enter a robotics event.
- Present information about hand washing and germs to a local daycare class.

Citizenship

- Present an idea for improving efficiency to your city council.
- Work with your city to improve a walkway, park, or playground.
- Organize an event to get young kids excited about rocketry and flight through hands on activities.

Leadership

- Organize a fieldtrip to a local lab, business, or industry to learn how science, engineering, and technology inform what they do.
- Teach a workshop on robotics or car restoration at a day camp.
- Join the Iowa State Technology Team.

Are You Into It?

This 4-H project is designed to help you explore the world of science, engineering, and technology. Science is a way for us to look at and try to understand the world around us. Being scientific involves being curious, observing, asking questions about how things happen and learning how to discover answers. Be a part of the future! Challenge your mind by exploring the world around you with hands-on science experiments and solve problems using engineering design principles and the latest technology. The sky's the limit - design a robot to clean your room, test a local stream for pollutants, or become an astronaut.

- Develop an interest and understanding of science, engineering and technology.
- Develop problem solving and logical reasoning skills.
- Develop knowledge and skills related to specific topics of interest.

Aerospace

Biological & Chemical Sciences

Computers & Networking

Digital Storytelling

Earth & Climate

Environment & Sustainability

Geospatial Mapping (GIS/GPS)

Mechanics & design

Robotics



Science in our Everyday Lives

- Improve communication and teamwork skills by working the way scientists and engineers do - in teams.
- Develop responsible attitudes about science and how science relates to the real world and people's lives.
- Gain experience in problem solving and decision-making using science process skills.

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Here's what you can do all year!

- If you are aiming for the stars set your sites on **Aerospace**. Reach for the stars with astronomy or learn how to get there with rocketry and flight. To find great ideas and resources for getting into this topic check out <http://aerospace.iowa4h.org/>.
- It is probably good chemistry for you to explore **Biological & Chemical Sciences**. Learn about life and the chemistry of your world through agriculture, medicine, biotechnology, genetics, critters (large and small), and engineering. To find great ideas and resources for getting into this topic check out <http://biological.iowa4h.org/>.
- Geek your projects with **Computers & Networking**. Get connected with hardware and software explore the digital side of life by building computers or using them for gaming, staying connected, and building virtual worlds. To find great ideas and resources for getting into this topic check out <http://computers.iowa4h.org/>.
- Tell your story or the story of others with **Digital Storytelling**. Discover the "how" of the video making process and the technology that makes it possible. Zoom in on animation, video production, editing, sound production, image manipulation, and telling a great story. To find great ideas and resources for getting into this topic check out <http://storytelling.iowa4h.org/>.
- If the changing planet is on your charts, then exploring **Earth & Climate** should be on your radar. Focus on issues ranging from geology to climate change and find out what everyone is talking about. To find great ideas and resources for getting into this topic check out <http://earth.iowa4h.org/>.

Check out the E-SET website to see what's happening in science & technology! www.extension.iastate.edu/4h/eset

- It makes sense to go green with **Environment & Sustainability**. It is all about making the earth a better place to live. Learn about plants, animals, habitats, environmental issues, or discover how you can live more sustainably with personal, agricultural, renewable energy, and conservation technologies. To find great ideas and resources for getting into this topic check out <http://environment.iowa4h.org/>.
- If you know where you are and where you are going **Geospatial Mapping (GPS/GIS)** should be on your map. Make your own maps and find your way using the technology and software that puts the world at your fingertips. To find great ideas and resources for getting into this topic check out <http://geospatial.iowa4h.org/>.
- Get your hands in it with **Mechanics & Design**. Design room cooling machine, build a green house for your garden, restore your dad's muscle car, get your lawnmower mowing and your go-cart racing, wire a room, weld up a piece of art, and do it all with a focus on mechanical and architectural principles. To find great ideas and resources for getting into this topic check out <http://mechanics.iowa4h.org/>.
- **Robotics** is the way of the future that is here today. Robots are doing surgery, building cars, and serving us as we live complex lives. Build and program your own robots to solve the issues you face. To find great ideas and resources for getting into this topic check out <http://robotics.iowa4h.org/>.
- If you live in the world today then you want to explore **Science in our Everyday Lives**. There's science behind what we eat, how we clean, what we do, and how we live. Discover the science, do your own research and form your own conclusions. To find great ideas and resources for getting into this topic check out <http://everydayscience.iowa4h.org/>.

Take it Further!

- Contact your County Extension Office for local workshops, activities, camps, and events
- Join the online communities on topics that interest you to get ideas for cool things you can do in science, engineering, and technology and share what you've been doing with others. www.extension.iastate.edu/4h/eset/resources
Meet others interested in the science and technology? Check out camps at the Iowa 4-H Center. www.extension.iastate.edu/4h/center
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, or join the Iowa 4-H Technology Team. <http://techtteam.iowa4h.org>
- Join Iowa Studio 4-H <http://studio4h.iowa4h.org> and hone your digital storytelling skills with the advice of professionals as mentors.
- Become a 4-H TV crewmember and create audio and video news stories for local and state 4-H events! www.extension.iastate.edu/e-set/4hiv
- Is it fair time? Consider taking an exhibit, a piece of your project learning, to the fair for judging and to show off what you've learned.
- Enter your science experiment or engineering design in the a local science fair or the State Science + Technology Fair of Iowa www.sciencefairiowa.org/

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4-H SEWING AND NEEDLE ARTS PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster identifying sewing machine parts and proper care of a sewing machine
- Interview a local business owner to find out how they select products for their customers
- Teach others how to use a sewing

Citizenship

- Make pillowcases to send overseas
- Organize your group to knit mittens for a local shelter
- Crochet or knit blankets for Project Linus <http://projectlinus.org/>

Leadership

- Recruit your local fabric store to support a large scale service project, like a community wide sewing event such as pillow cases for veterans.
- Lead a working exhibit for your club on embellishing techniques
- Organize a prom dress exchange service at your school.

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Are You Into It?

Stitch This! Use your sewing skills and creativity to make clothes, pillowcases, horse blankets, or anything else you can stitch, knit or crochet!

- Learn to create clothing or other items for yourself and others
- Learn about fibers and fabrics
- Apply design elements and art principles to your constructed item
- Learn how to safely use sewing equipment

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Learn to use your sewing machine, its attachments, and other equipment (cutters, needles, scissors, etc.) • Sew on a button by hand • Make a pillowcase or totebag for yourself • Select fabric and a pattern for a project • Learn to read care labels on fabric items • Sew accurate seams at various widths • Learn to knit, crochet, or hand-embroider simple projects 	<ul style="list-style-type: none"> • Learn to use a serger or sew French seams as a seam finish • Explore the properties and care techniques for different types of fabric • Install a zipper, add a pocket, or use other embellishments • Dye your own fabric • Learn to sew specialty fabrics like heavy denim or upholstery fabric • Select yarn and create a knit or crocheted article of clothing 	<ul style="list-style-type: none"> • Design your own pattern, using design elements and art principles • Measure windows and make curtains • Compare cost of ready-made vs. homemade items • Explore careers in the textile industry • Use a computer program to design a quilt, wall hanging, or embroidery pattern • Design and make a furnishing or clothing accessory you can sell, and market your product



Take sewing and needle arts further!

Here are other opportunities to explore Sewing and Needle Arts:

- Contact your County Extension Office to participate in local sewing camps, workshops or county or regional fairs
- Visit an upholstery shop to learn how they manufacture furniture coverings from various fabrics
- Take a trip to visit a fabric mill and learn how different fabrics are woven
- View the quilts at a quilt show, making note of the use of the design elements and principles as well as the use of fabric and embellishment
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Meet others interested in sewing and needle arts. Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of apparel, merchandising, design or production? Schedule a visit with Iowa State University College of Human Sciences or College of Design to explore their majors. www.iastate.edu

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Under Construction Level 1 (4H 320A) • Fashion Forward Level 2 (4H 320B) • Refine Design Level 3 (4H 320C) • Unraveling the Mystery of Design Elements and Principles in Clothing (4H 313) • Design: Exploring the Elements and Principles (4H 634) • Home Improvement Design (4H 491) 	<ul style="list-style-type: none"> • Washington St. Univ. 4-H Clothing http://4h.wsu.edu/projects/clothing.htm • Home Sewing Assoc. www.sewing.org/ • Sew-What's-New http://sew-whats-new.com/ • Fabric Link www.fabriclink.com/index.cfm • Hand Stitches http://mdg.ext.msstate.edu/sewing/threadneedle.html • Utah State 4-H Sewing & textiles http://extension.usu.edu/html/publications/by=category=168/start=1 • Utah State 4-H knitting guide http://extension.usu.edu/files/publications/publication/4-H_Sewing&Textiles_2012-02pr.pdf 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98)

Exhibit Ideas

- Sewing Exhibit Ideas <http://extension.usu.edu/html/publications/by=category/category=168>
- Choose a fabric and explain what it is made of, care for, and what it is used for
- Explain how woven fabrics differ from knit or felted fabrics.
- What are some new fabrics and why were they made? (bulletproof vests, antibacterial, wicking, etc)
- Describe process of laundry and special considerations.
- How to make simple repairs using only needle and thread.
- Construct a soft furnishing (pillow, quilt, comforter, curtains, etc.).
- Develop a portfolio, poster, Powerpoint or notebook of your sewing leadership project.
- Show how yarn is created, and different properties of various fibers used in making yarn or thread.
- Create a notebook of knitting or crochet stitch swatches
- Make a poster showing what gage means in knitting or crochet
- Create a display showing embroidery stitches naming each stitch

4-H SHEEP PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on parts of the animal
- Participate in a judging contest giving oral reasons
- Give a shearing demonstration

Are You Into It?

In the 4-H sheep project you can learn about breeds, selection, grooming, production, management, showmanship, marketing, and careers.

- Learn the basic principles of animal science by owning, caring for, and keeping records on one or more head of livestock
- Gain knowledge of sound breeding, feeding, and management practices
- Identify quality in wholesale and retail cuts of meat to understand the relationship to management principles

Here's what you can do all year!

Citizenship

- Volunteer your lamb for a community petting zoo
- Hand out food samples at your local grocery store
- Volunteer to help at the county sheep weigh-in

Leadership

- Invite other 4-H members to tour your farm
- Teach others how to safely handle sheep
- Lead a sheep showmanship and grooming clinic

Starting Out Basic / Level 1

- Learn health and care of your sheep
- Learn what you need to show your animals
- Produce a healthy and safe meat product
- Identify different breeds
- Locate and name parts of sheep
- Learn proper feeding of sheep
- Tell the difference between the age of sheep

Learning More Intermediate / Level 2

- Learn about food safety management practices
- Learn the life cycle of sheep parasites
- Judge and present your sheep
- Understand medications for health of your sheep
- Communicate with the vet for disease prevention
- Practice breeding management practices
- Care for a newborn lamb
- Explore sheep shelters for adequate protection
- Research goat meat markets

Expanding Horizons Advanced / Level 3

- Plan and organize production records
- Develop cost and expense records
- Explore sheet genetics
- Interview people in agriculture careers
- Explore sheep industry issues
- Market sheep products
- Select breeding animals
- Identify lamb cuts at the local grocery store
- Measure your pasture's productivity

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Take Sheep further!

Here are other opportunities to explore Sheep:

- Tour a sheep operation
- Attend a sheep show to listen to a judge give oral reasons and witness the differences in judging sheep
- Visit a local feed mill and see how feed ingredients are mixed, weighed and blended to make a complete ration
- Ride with a local veterinarian to learn about animal health
- Participate in a judging team
- Design a business plan to market lamb meat directly to retailers, restaurants, or private customers
- Write an educational article about some aspect of sheep production for your newspaper
- Research sheep by-products
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and take the sheep track, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair sheep show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Participate in the 4-H sheep show
 - Breeding sheep
 - Market lambs
 - Showmanship
 - Rate of gain
- Consider an exhibit, notebook or display showing what you have learned in a sheep-related topic
 - Nutritive value of meat goats
 - Meat cuts and proper preparation
 - Feeding rations
 - Preventative vaccinations
 - Photos of different breeds
 - Daily routine in caring for animals
 - Grooming techniques
 - Developing a breeding herd
 - Best care techniques for newborns
 - How to select and judge your lamb
 - Medical show kit
 - Explain the use of FEPP's
 - Understanding carcass grading in lamb carcasses
 - Video on how to train your lamb to lead
 - Proper exercising techniques
 - Making ethically sound decisions
 - Feed additives and their proper uses

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Sheep www.extension.iastate.edu/4h/projects/sheep.htm • Youth and 4-H Sheep Project (4H 702) • Rams, Lambs & You Level 1 (4H 703A) • Shear Delight Level 2 (4H 703B) • Leading the Flock Level 3 (4H 703C) 	<ul style="list-style-type: none"> • Iowa Sheep Industry Association www.iowasheep.com/ • Iowa State University Sheep Teaching Farm http://breedingsheepage.com/ISUfarm/index.htm • Iowa State Animal Science page www.ans.iastate.edu/ • American Sheep Industry Association www.sheepusa.org/ 	<ul style="list-style-type: none"> • Market Animals <ul style="list-style-type: none"> -Record Worksheet (4H 228JR) -Project Worksheet (4H 228WS) • Breeding Animals <ul style="list-style-type: none"> -Record Worksheet (4H 229JR) -Project Worksheet (4H 229WS) • Iowa 4-H Sheep Verification Form (4H 106D) • 4-H Beef, Sheep and Swine Breeding Worksheet Level 1 (4H 229 JR) • Lifetime Ewe Record (4H 229D WS)

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4-H SHOOTING SPORTS PROJECT



Step It Up!

Are You Into It?

4-H Safety and Education in Shooting Sports (SESS) uses skills and disciplines of shooting to assist young people and their leaders in obtaining knowledge and developing life skills. The disciplines include archery, rifle, shotgun, muzzleloader and wildlife skills.

- Learn safe and responsible use of firearms and archery equipment including sound decision making, self-discipline, and concentration
- Promote the highest standards of safety, sportsmanship, and ethical behavior
- Encourage understanding of our natural resources and the development of a personal environmental stewardship ethic through participation in shooting, hunting, and related activities

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Listen to and respect range commands
- Create a poster, news release, or video
- Speak about proper handling, shooting, and types of firearms; and wildlife & hunting skills

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Identify parts, uses and care of archery equipment and rifles • Learn and practice range commands • Learn and use safety rules such as eye and ear protection and correct behavior on the range • Learn wildlife or hunting basics 	<ul style="list-style-type: none"> • Learn the differences and uses of a variety of equipment, such as types of archery equipment and rifle components • Develop shooting skills using different techniques and positions • Advance your shooting experiences by trying shotguns and muzzleloaders • Learn and use hunter safety rules and hunter ethics 	<ul style="list-style-type: none"> • Make archery equipment • Do gunsmithing • Demonstrate advanced skills by participating in higher level competitions • Do and teach about conservation practices

Citizenship

- Follow range and hunting safety rules and regulations
- Clean up the shooting range and participate in environmental projects
- Partner with local groups to promote safety and hunter ethics

Leadership

- Invite friends to participate in SESS
- Take leadership and partner with local groups to promote conservation and habitat improvement in your area
- Plan and organize a shooting match

4-H
GROWING TOGETHER



Take Shooting Sports further!

Here are other opportunities to explore Safety & Education in Shooting Sports:

- Participate in local, regional, state and national matches. Find out more here: www.extension.iastate.edu/4h/projects/ShootingSports/sessevents.htm
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in shooting sports. Check out camps at the Iowa 4-H Center.
- Interested in a college? Schedule a visit with Iowa State University to explore a variety of majors www.iastate.edu
- Check out the Iowa State University trapshooting club
- Work with your local county conservation to improve wildlife habitat.
- Become involved in your local shooting sports related non-profit groups (i.e. NWTF, Pheasants Forever, Whitetails Unlimited, Ducks Unlimited and others).

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Safety & Education in Shooting Sports www.extension.iastate.edu/4h/projects/ShootingSports/ • National 4-H Shooting Sports www.4-hshootingsports.org/ • 4-H Shooting Sports Activities and Events www.extension.iastate.edu/4h/projects/ShootingSports/sessevents.htm 	<ul style="list-style-type: none"> • Brownells www.brownells.com/ • Iowa DNR www.iowadnr.com • National Rifle Association www.nranews.com/ • USA Shooting www.usashooting.com/ • National Muzzle Loading Rifle Association www.nmlra.org/ • Crosman www.crosman.com/airguns • Amateur Trapshooting Association www.shootata.com • National Archery Association http://usarchery.org/ • National Wild Turkey Federation www.nwtf.org/iowa/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • SESS Project Record • Shooting Log • Minnesota 4-H Shooting Sports and Wildlife Journal (MI 08579, 2008)

Exhibit Ideas

- Present the proper outfit and accessories for hunting, shooting, etc.
- Give a presentation on proper gun handling, shooting skills, wildlife, hunting, types of firearms or archery equipment
- Make a poster comparing different brands of available equipment
- Give a demonstration on how to train a dog for hunting
- Present about different breeds of hunting dogs
- Make a poster comparing wildlife habitats and how humans interact with them on a daily basis
- Teach others how to prepare a dish with wild game
- Write a paper learning about general outdoors safety and orienteering skills
- Make a poster with pictures of wildlife
- Give a presentation on firearm and hunter safety
- Make a project out of used targets or shells- sculpture, painting, etc.
- Compare and contrast different brands and types of ammunition.

4-H SWINE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Design a poster on parts of the animal
- Participate in a judging contest giving oral reasons
- Give a tail docking demonstration

Citizenship

- Volunteer your baby pig for ag-in-the-classroom at school
- Participate in a "food-for-life" project donating to food pantries
- Volunteer to help at the county livestock judging event at the swine station

Leadership

- Lead other 4-H members in participating in local pork producer events
- Teach others how to safely handle swine at a FSQA session
- Lead a swine showmanship and grooming session prior to your county fair

4-H
GROWING TOGETHER

Are You Into It?

In the 4-H swine project you can learn about breeds, health care, production, management, showmanship, marketing and careers.

- Learn the basic principles of animal science by owning, caring for, and keeping records on one or more head of livestock
- Gain knowledge of sound breeding, feeding, and management practices
- Learn nutritive value of swine products and promote their use

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Learn breed names and descriptions • Identify swine body parts • Learn how to judge swine • Plan a facility to keep swine safe and healthy • Learn how to feed and water your pig • Identify how a normal pig looks and acts • Name and describe pork meat cuts • Discover pork by-products • Conduct a pork cooking and tasting experiment • Prepare to show your swine at the fair 	<ul style="list-style-type: none"> • Learn differences in preparing pork cuts by cooking and tasting • Explore normal pig characteristics • Discover agriculture careers • Outline a pig health care plan • Understand swine management practices • Analyze and make decisions on how to solve swine issues • Formulate a swine ration • Plan and conduct a pork promotional activity • Help others learn each of the baby pig management practices 	<ul style="list-style-type: none"> • "Adopt" a younger person and help him or her explore the swine project • Organize a judging clinic • Plan and conduct a swine showmanship clinic for younger members • Arrange questions and hold a swine quiz bowl • Plan swine breeding • Research state or national swine organizations • Learn about swine genetics • Interview agencies about environmental issues



10/01/13

Take Swine further!

Here are other opportunities to explore Swine:

- Visit a local feed mill and see how feed ingredients are mixed, weighed and blended to make a complete ration
- Compare feed tags from different companies
- Visit a local meat locker or local grocery meat case to observe preparation and packaging
- Learn how to evaluate meat cuts, quality grade, yield grade and how these affect taste and cost
- Ride with a local veterinarian to learn about animal health
- Attend a swine show to listen to a judge give oral reasons and witness the differences in judging hogs
- Participate in a judging team
- Tour a hog operation
- Research swine by-products
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and take the swine track, participate in the community service project, bringing ideas back to your community.
- Is it fair time? Consider showing in your County Fair swine show or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Swine www.extension.iastate.edu/4h/projects/swine • National 4-H Swine http://www.4-h.org/resource-library/curriculum/4-h-swine/ • The Incredible Pig Level 1 (4H 721A) • Hamming It Up Level 2 (4H 721B) • Going Whole Hog Level 3 (4H 721C) • Swine Leader Guide (4H 721 LDR) 	<ul style="list-style-type: none"> • Iowa Pork Industry Center http://www.ipic.iastate.edu/ • Iowa Pork Producer's Association www.iowapork.org • National Pork Board www.pork.org • Iowa State Animal Science www.ans.iastate.edu/ • Iowa State Swine Teaching Farm www.ans.iastate.edu/centers/swine/?pg=visit • National Swine Registry www.nationalswine.com 	<ul style="list-style-type: none"> • Market Animals -Record Worksheet (4H-228JR) -Project Worksheet (4H-228WS) • Breeding Animals -Record Worksheet (4H-229JR) -Project Worksheet (4H-229WS) • County Swine ID Report (4H 106F)

Exhibit Ideas

- Participate in the 4-H swine show
 - Market Hog
 - Pen of three
 - Breeding Gilt
 - Showmanship
 - Derby show
- Consider an exhibit, notebook or display showing what you've learned in a swine-related topic
 - Nutritive value of pork
 - Pork meat cuts and proper preparation
 - Feeding rations
 - Importance of reading feed labels
 - Preventative vaccinations
 - Photos of different swine breeds
 - Daily routine in caring for animals
 - Grooming techniques
 - Best care techniques for newborns
 - Hog by-products
 - Impact of local foods on local economy
 - Pros and cons of a farrow to finish operation vs. grower operation
 - Bio-security measures for livestock farmers
 - Research where the pork checkoff dollars are used
 - Selection and how to judge a market hog or breeding gilt
 - How to register an animal with the National Swine Registry
 - Proper exercising techniques for show pigs
 - Caring for pigs in hot weather
 - Appropriate animal handling techniques
 - Explain how to read pig ear notches

IOWA STATE UNIVERSITY
Extension and Outreach

4-H
GROWING TOGETHER

4-H VETERINARY SCIENCE PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Give an educational presentation on types of injections and how to vaccinate animals
- Develop an animal health management plan with a veterinarian
- Help in presenting in a FSQA session

Are You Into It?

Do you have an animal you want to keep healthy or are you interested in a career keeping animals healthy? The 4-H Veterinary Science project helps you explore and learn more about animal health in your home, club, community, country, and world. Grow your knowledge about how animal health affects public health!

- Appreciate the importance of good management and sanitation practices in keeping animals and birds healthy
- Learn the values of scientific research and its influence on animals and their health

Here's what you can do all year!

Citizenship

- Volunteer at a local veterinary clinic
- Volunteer at Animal Rescue League
- Start a campaign encouraging pet owners to neuter and spay their pets

Leadership

- Help members develop a health care plan for their animal projects
- Create a bio-security informational sheet and kit for 4-H members to keep at their livestock areas
- Organize a pet first aid class through your local Red Cross Chapter

Starting Out Basic / Level 1

- Understanding differences of species in body styles, systems, breeds and life stages.
- Explore the animal basic needs and health/safety.
- Learn how veterinarians and owners work together to keep animals healthy.
- Investigate the many careers of animal science and veterinary science.

Learning More Intermediate / Level 2

- Discover the importance of Food Safety and Quality Assurance.
- Explore biosecurity and an animal health management plan for animals.
- Consider ethics and animal welfare
- Develop and maintain accurate health records for animals and pets.
- Investigate health issues related to body systems, diseases, parasites and the importance of immunity.

Expanding Horizons Advanced / Level 3

- Incorporate science into understanding of genetics and animal reproduction and health.
- Research the use of veterinary technology and procedures
- Identify the transfer of diseases between animals and humans.
- Further explore non-veterinary, animal-related careers

4-H
GROWING TOGETHER



Take Veterinary Science further!

Here are other opportunities to explore Veterinary Science:

- Assist with a local Food Safety Quality Assurance class for younger 4-H members
- Schedule a job shadow with your local veterinarian
- Become a youth representative on a livestock bio-security advisory group
- Set-up a local/area animal disease emergency preparedness and response team
- Attend Animal Science Round-Up as part of the Iowa 4-H Youth Conference and participate in one of the livestock areas.
- Attend the Iowa State Fair Vet Camp (registrations available online)
- Is it fair time? Consider a communications speech or develop a poster or video for your county fair or the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Interested in a college education in animal science or veterinary medicine?
Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Create a display of products which come from livestock or animals
- Compare/Contrast various health management plans for a type of animal
- Interview a veterinarian and report on the various parts of their job.
- Create a display showing the difference in animal digestive systems
- Create a poster illustrating the types of injections for animals
- Research domestic animal health issues and how they affect people
- Research wild animal health issues and how they affect people
- Create a first aid kit for large or small animals
- Make a poster showing how to care give first aid to an animal
- Make a poster about foods, plants, and/or household items that are poisonous to animals
- Take a tour of the Iowa State University Vet College
- Learn about newly approved feed additives for livestock and their uses
- Show the growth curve over an animal's lifetime
- Develop a video on proper hoof care for an animal
- Develop a video or power point on ethics in the livestock industry

Resources

4-H Resources

- Iowa 4-H Veterinary Science www.extension.iastate.edu/4h/projects/Livestock/vetscience.htm
- From Airedales to Zebras Level 1 (4H 0760A)
- All Systems Go! Level 2 (4H 0760B)
- On the Cutting Edge Level 3 (4H 0760C)
- University of Nebraska 4-H Vet Science Series
- The Normal Animal (EC 29981)
- Animal Disease 2 (4H 48)
- Animal Health and Its Relationship to Our World 3 (4H133)
- University of California-Davis <http://anrcatalog.ucdavis.edu/10900/8372.aspx>

Other Resources

- Iowa State University College of Veterinary Medicine <http://vetmed.iastate.edu/>
- American Veterinary Medical Association www.avma.org/
- AVMA – Pet First Aid www.avma.org/firstaid/
- American Association of Veterinary Medical Colleges www.aavmc.org/
- American Veterinary Medical Association www.youtube.com/AmerVetMedAssn
- Future Vet www.futurevet.net
- Healthy Pets www.cdc.gov/healthypets/

Record Keeping

- [4-H Yearly Summary \(4H0096\)](#)
- [Basic 4-H Project Record \(4H-0096A\)](#)
- [Experienced 4-H Project Record \(4H0096B\)](#)
- [Advanced 4-H Project Record \(4H0096C\)](#)
- [Record keeping Self-Evaluation \(4H98\)](#)

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4-H
GROWING TOGETHER

4-H VISUAL ARTS PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Create a poster, flier, or brochure
- Teach art activities at an afterschool or summer program
- Plan, conduct and evaluate an on-going workshop

Citizenship

- Volunteer at a local art event
- Donate your art for a fundraiser
- Share your art skills with others – at school, churches, synagogue, or recreation

Leadership

- Lead your family in an art project
- Offer to critique your friend or family's artwork
- Volunteer to serve on a local art council

4-H
GROWING TOGETHER

Are You Into It?

Do you want to express yourself, be creative, or make an impression? Visual Arts is for you! It may be messy, fun, strange, or unique. You will get to work with paint, chalk, metal, wood, origami, computers and much, much more. Be yourself, explore visual arts!

- Explore and experiment with endless materials to make new art
- Develop your creative skills and talents
- Be confident expressing yourself through various art forms
- Gain understanding of art history, cultures, and various technique
- Master the basics of making great art – its elements and principals
- Consider a career or life time hobby in art

Here's what you can do all year!

Starting Out Basic / Level 1	Learning More Intermediate / Level 2	Expanding Horizons Advanced / Level 3
<ul style="list-style-type: none"> • Interview a local artist • Create a portfolio and design idea book – for storing your great works and ideas • Explore ways to cut and assemble paper • Exchange art materials with friends • Create an art or craft with a friend • Find places to share your art with family, friends and your community • Experiment with line and color 	<ul style="list-style-type: none"> • Identify a town or country and its local art • Seek out a creative person you would like to learn more about • Arrange an art trip to local art fair or farmer's market • Experiment with various brushes and paint • Compare different types of media • Experiment with line, shape, color, texture and space 	<ul style="list-style-type: none"> • Experiment with rhythm, proportion, emphasis, balance, and unity • Understand and apply media techniques and processes • Understand visual art in relationship to history and culture • Enter your art in a local exhibition • Be an entrepreneur – market and sell your work



Take Visual Arts further!

Here are other opportunities to explore Visual Arts:

- Explore other project areas including Photography, Clothing, Home Improvement and others.
- Check out books at the library or visit online sources to learn more about techniques, composition, copyright and privacy laws, and the history and future of art.
- Create a portfolio of your best artwork (sketches, techniques and final compositions).
- Attend local art exhibitions at museums and schools.
- Enter your artwork in a local, state or national exhibition.
- Learn about other artists, art history and techniques by visiting a library or using online resources.
- Volunteer to create a work of art for your school, church or other organization.
- Is it fair time? Consider taking an exhibit, a piece of your project learning, to the fair for judging and to show what you have learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your local ISU Extension Office for other local workshops, activities and events.
- Meet others interested in visual arts. Check out camps at the Iowa 4-H Center.
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Interested in a college education in the area of visual arts? Schedule a visit with Iowa State University's College of Design. www.iastate.edu

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Visual Arts www.extension.iastate.edu/4h/projects/visualart • Color Wheel (4H 633) • Design: Exploring the Elements and Principles (4H 634) • Celebrate Art Level 1 (4H 635A) • Art in Your Future Level 2 (4H 635B) • Sketchbook Crossroads; Drawing, Fiber and Sculpture (4H 638A) • Portfolio Pathways: Painting, Printing and Graphic Design (4H 638B) 	<ul style="list-style-type: none"> • Copyright Kids www.copyrightkids.org • Art Junction www.artjunction.org • Imagination Factory www.kid-at-art.com • Artcyclopedia www.artcyclopedia.com/ • The Exploratorium on the Web www.exploratorium.edu/ • The Smithsonian www.si.edu/ • Des Moines Arts Center www.desmoinesartcenter.org/ • 4-H Visual Arts Online http://new.4-hcurriculum.org/projects/visualarts/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H0096) • Basic 4-H Project Record (4H-0096A) • Experienced 4-H Project Record (4H0096B) • Advanced 4-H Project Record (4H0096C) • Record keeping Self-Evaluation (4H98) • Portfolio Guidelines (4H 97B) • Design an "Idea Book" • Create a video that showcases your design ideas

Exhibit Ideas

- Piece of original art such as charcoal drawing, watercolor, tempera or acrylic painting, pen and ink drawing, colored pencil drawing, etc.
- Portfolio about visual arts techniques such as perspective, sketching, contour drawing, shading, blending, etc.
- Display about drawing tools
- Report about a favorite artist's life or type of art
- Notebook based on an interview with a local artist or jeweler
- Report about museum visits
- An original sculpture such as cardboard, wire, plaster or clay
- Poster or display on design element(s) or art principle(s)
- Demonstrate mixing colors on a poster or display
- Portfolio of advertisements showing design elements or art principles
- Original optical illusion using shape and space
- Poster on different vegetable dyes
- Demonstrate silk-screening
- Piece of jewelry using handmade beads or ornaments
- Photo display of art found in your community or state
- Report about careers that use artistic techniques such as a jeweler or designer

4-H WOODWORKING PROJECT



Step It Up!

Pass it on! Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Conduct a wood finishing seminar
- Prepare an exhibit that explains types of wood and best applications for each
- Give a safety demonstration for safe woodworking tool usage
- Develop an exhibit comparing different wood finishes

Citizenship

- Build a bird feeder for a neighbor
- Build toys out of wood for a homeless shelter
- Make a bench and donate it to charity
- Join a Habitat for Humanity build

Leadership

- Conduct a basic building workshop for a younger club
- Organize your club to assist older community members winterize their home
- Be a project helper for younger members in woodworking

4-H
GROWING TOGETHER

Are You Into It?

Woodworking is a valuable skill for a hobby, household repairs or even a career. Learn about types of wood, uses for various kinds of wood, how to make connections and joints, safety tips, common tools and project ideas from the very simple to impressive!

- Develop an understanding for fiber products of the forest.
- Develop skills in the selection and uses of various types of wood and wood products.
- Develop skills in the selection, care, and safe use of woodworking tools and machines.
- Learn about environmental protection and the wise use of natural resources.

Here's what you can do all year!

Starting Out Basic / Level 1

- Identify tools and needs for your work area
- Learn safety rules, tool safety settings and how to use safety gear
- Identify what different woods look and feel like
- Understand how to use a variety of hand tools
- Learn how to connect wood using glue and nails
- Finish wood projects by sanding and painting

Learning More Intermediate / Level 2

- Learn how to use the right hand tools
- Determine which woods are good for a product
- Learn to measure and cut angles
- Learn the importance of proper sanding and finish application

Expanding Horizons Advanced / Level 3

- Discover joining, clamping and connecting techniques
- Using stain to emphasize the grain of wood
- Understand difference between wood, laminates and veneers
- Correct and safe use of power tools
- Explore woodworking careers and entrepreneurial opportunities



Take Woodworking further!

Here are other opportunities to explore woodworking:

- Contact your local County Extension Office for local woodworking workshops, activities, or events
- Sign up for the distribution list
- Visit a cabinet making business to see how they apply what you are learning about woodworking
- Use online resources to learn advanced techniques
- Explore local woodworking groups and find ways to connect with them to learn more
- Visit your local community college to learn about woodworking careers and degrees
- Go to woodworking shows to learn about tools, techniques, and products
- Attend Iowa 4-H Youth Conference and participate in workshops, motivational speakers and a community service project, bringing ideas back to your community
- Is it county fair time? Consider taking an exhibit, a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the Iowa State Fair.
- Contact your county ISU Extension Office for other local workshops, activities, and events
- Meet others interested in woodworking? Check out camps at the Iowa 4-H Center.
- Interested in a college education in the area of woodworking, architecture, industrial technology or engineering? Schedule a visit with Iowa State University to explore those majors. www.iastate.edu

Exhibit Ideas

- Make and finish a piece of furniture
- Build a tack box for your show animal project
- Make a toy train set out of wood
- Build a birdhouse or feeder
- Build a doghouse
- Make a design for something you would like to build - a table, a cabinet, or even a small building
- Create a poster on safety precautions when working with wood and tools
- Develop an exhibit on woodworking tool(s) and what they are used for
- Make an exhibit on various wood fasteners, where they would be used and why
- Create an exhibit on various woodworking techniques
- Make an exhibit evaluating the merits of different joinery
- Develop an exhibit on furniture repair
- Make an exhibit on "green" woodworking and sustainable wood types
- Create an exhibit comparing wood to synthetic replacements

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Iowa 4-H Woodworking http://www.extension.iastate.edu/4h/projects/woodworking • Measuring Up Level 1 (4H 745A) • Making the Cut Level 2 (4H 745B) • Nailing it Together Level 3 (4H 745C) • Finishing Up Level 4 (4H 745D) • Woodworking Leader Guide (4H 745 LDR) 	<ul style="list-style-type: none"> • DIY Network Woodworking projects www.doityourself.com/scat/woodworkingprojects • Hardwood Information http://www.hardwoodinfo.com/ • Online woodworking resources http://www.woodnet.net/ • Woodworker's Central http://www.woodworking.org/ • Fine Woodworking. Com www.finewoodworking.com/ • Woodworking Industry Information http://www.woodweb.com/ 	<ul style="list-style-type: none"> • 4-H Yearly Summary (4H 0096) • Basic 4-H Project Record (4H 0096A) • Experienced 4-H Project Record (4H 0096B) • Advanced 4-H Project Record (4H 0096C) • Recordkeeping Self-Evaluation (4H 98, PDF)