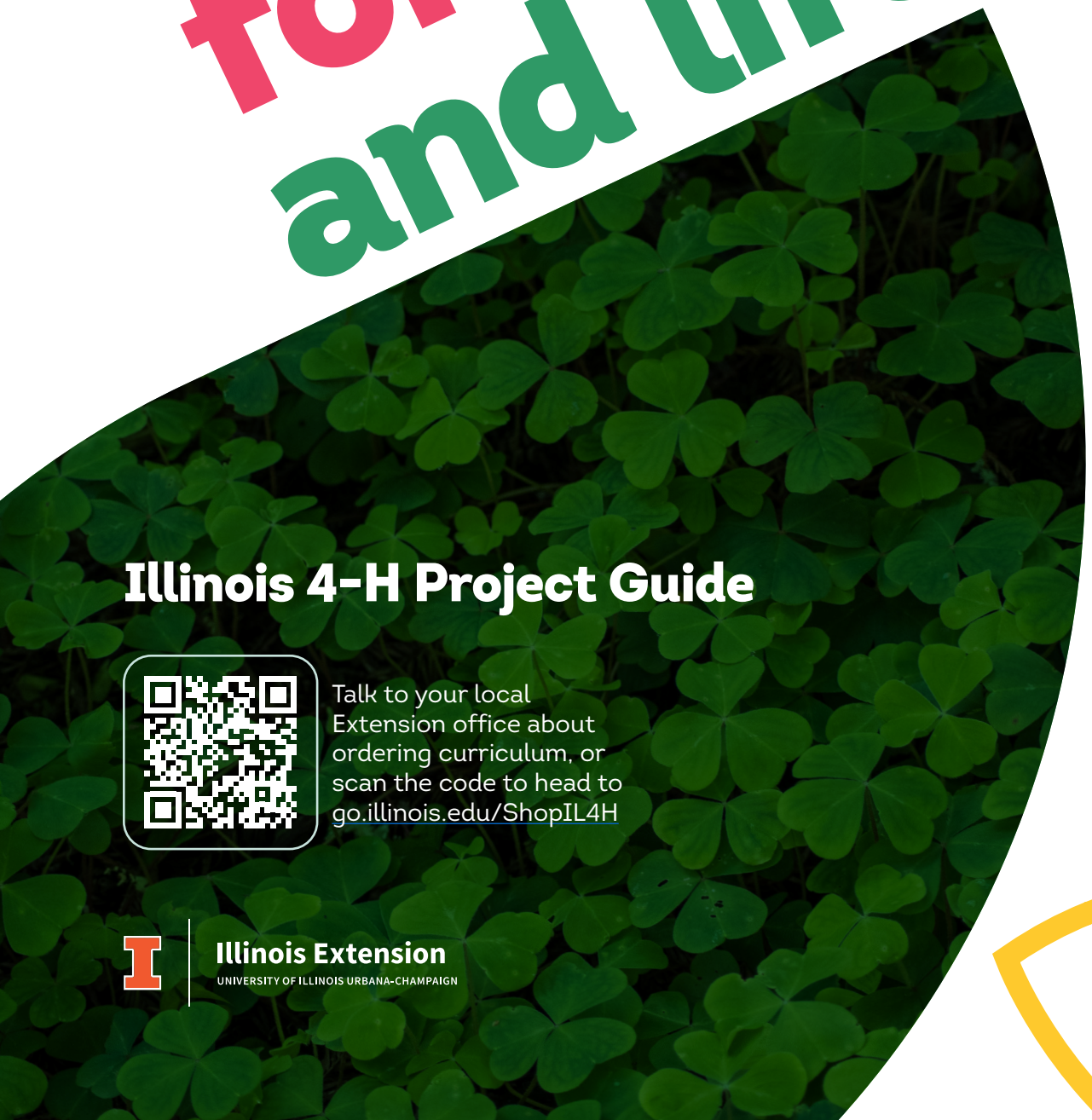
HEAD · HEART · HANDS · HEALTH

Beyond Ready

Ready for work and life



Illinois 4-H Project Guide

Talk to your local Extension office about ordering curriculum, or scan the code to head to go.illinois.edu/ShopIL4H

Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Print date: Fall 2025

What is a 4-H PROJECT?

In 4-H, members learn about topics that interest them! These are referred to as members' "projects." 4-H projects often spark young people to follow their passions, interests, and talents on a new path to career development, enjoyment, and belonging.
Youth sign up for one level of a project each year

But what exactly makes up a 4-H Project?

Learning Experiences

These help you find your spark and work towards mastery. These could include things like learning from a 4-H publication, workshops, clinics, self-study, educational tours, publications, and more!

Community Service

This is where you give back what you've learned! This could include starting a community garden with your newfound horticulture skills, volunteering to lead a health and fitness class, hosting a food drive, and more!

Leadership

Teach, mentor, and assist others with your new skills! This could include leading a workshop, planning a tour, holding an activity, making a speech on your topic, and more!

Showcase

Time to showcase your hard work! This could include exhibiting at a show or fair, participating in a contest, giving an educational presentation, and more!

Start your project journey by choosing one of the projects in this guide!

Find your project here!

Animal Science

Beef • Cats • Dairy Cattle • Dairy Goats • Dogs • Horse • Llamas & Alpacas • Meat Goats • Poultry • Rabbit • Sheep • Small Pets • Swine • Vet Science

Beef

Skills learned in raising beef cattle prepare you for many things you'll need in the future: responsibility, ethics, and hard work. You'll also have fun while you learn to produce a safe food product.

- In level 1, learn to identify breeds of beef cattle, halter break a calf, identify symptoms of sick cattle, and fit a steer.
- In level 2, learn about cattle feeds, judge beef cattle, present oral reasons, and identify livestock safety hazards.
- In level 3, calculate yield grade for cattle, evaluate beef carcasses, read and use sire summaries, and interview people in agriculture careers.

Cats

Learn how to care for your cat's health, nutrition, and housing needs. Caring for a pet helps you develop responsibility, nurturing, and communication skills.

- In level 1, learn to care for your cat, name the parts of a cat, and groom your cat.
- In level 2, identify cat behavior, observe a cat's six senses, learn about declawing cats, understand a cat's nutritional needs, and learn the signs of illness in cats.
- In level 3, learn about genetics, practice cat showmanship, learn about cat reproduction, organize a cat quiz bowl, and learn about animal welfare issues.

Dairy Cattle

Explore the dairy industry, from raising and showing a cow to manufacturing and marketing dairy products.

- In level 1, identify the breeds of dairy cattle, identify the body parts of cows, understand the life cycle of cows, explore milk production, and learn to fit and show cattle.
- In level 2, learn to judge dairy cows, discuss animal health issues, identify safe practices for handling milk, select dairy housing and forage, and explore dairy-related careers.
- In level 3, evaluate the body condition of dairy animals, discuss animal welfare issues, identify the estrous cycle of cattle, and learn pregnancy detection and delivery techniques.

Dairy Goats

The dairy goat project involves raising and caring for live animals while learning about animal health, nutrition, breeding, selection, and marketing.

- In level 1, identify breeds of goats, learn to be a responsible goat owner, solve goat care problems, and prepare a goat for show.
- In level 2, learn goat management practices, learn about health management practices, track kid growth, exhibit goats, and judge goats.
- In level 3, organize a goat field day, develop a herd health calendar, learn about breeding systems, and evaluate a goat herd.

Dogs

Learn to feed, care for, and keep a dog healthy; how to groom and train your dog; and how to be a responsible dog owner.

- In level 1, learn dog breeds, create a house-training plan, explore dog behavior, and learn to groom dogs.
- In level 2, learn the history of dog breeds, create a dog care budget, correct undesirable dog behaviors, and learn to show.
- In level 3, learn to assess a dog's vital signs, explore careers working with dogs, learn local dog ordinances, and learn about service and guide dogs.

Horse

Learn responsibility, proper nutrition, and how to care for your horse(s).

- In level 1, learn the basics of horse behavior, practice safety around horses, learn about horses without owning a horse, and assess horse health.
- In level 2, study horse anatomy, understand horse health and nutrition, select bedding material, and practice horse judging.
- In level 3, learn about breeding and genetics, learn about disease and health care, design a horse health program, and explore the financial side of showing horses.
- In level 4, practice riding skills, learn horsemanship skills, use training techniques, and explore trail riding.
- In level 5, learn advanced riding skills, learn about ethics and competition, and teach horsemanship and safety to others.

EXHIBIT INFORMATION

Youth enrolled in any Animal Science project will be eligible for a general project show exhibit opportunity in the Animal Science 1 or Animal Science 2 classes based on years in the project. Many counties also offer live animal exhibit opportunities.

Animal Science

Beef • Cats • Dairy Cattle • Dairy Goats • Dogs • Horse • Llamas & Alpacas • Meat Goats • Poultry • Rabbit • Sheep • Small Pets • Swine • Vet Science

Llamas & Alpacas

Learn to properly care for llamas and alpacas.

- In level 1, learn about animal care, training, and grooming.
- In level 2, learn about registering animals, animal communication, showmanship, and fleece.
- In level 3, explore social behavior, fiber types, body condition, careers, and more.

Meat Goats

The meat goat project involves raising and caring for live animals while learning about animal health, nutrition, breeding, selection, and marketing.

- In level 1, identify parts of a meat goat, identify goat breeds, learn about goat nutrition and health, and practice basic management skills.
- In level 2, learn about meat goat diseases, work with a veterinarian, identify goat predators, and fit and show meat goats.
- In level 3, host a judging clinic, investigate biosecurity, select breeding stock, and evaluate feed ingredients.

Poultry

Get involved in growing and managing a small flock of chickens.

- In level 1, learn about poultry breeds, study the parts of a chicken egg and their function, care for chicks, and practice showmanship techniques.
- In level 2, learn how eggs are formed, learn to keep poultry healthy, select and judge broilers, and make an egg candler to examine an egg.
- In level 3, manage a small laying flock, learn to process a chicken, determine inheritance in chickens, and study poultry biotechnology.

Rabbit

The rabbit project is a great way to get involved no matter where you live. You'll learn the basics of rabbit care and proper nutrition. You can even show your rabbits.

- In level 1, learn to care for a rabbit, groom and show a rabbit, and build a nest box.
- In level 2, select and judge rabbits for exhibit, and learn about rabbit housing and care.
- In level 3, study genetics and rabbit breeding, design a rabbitry, and promote rabbit products.

Sheep

The program will help you learn to select, manage, produce, and market sheep.

- In level 1, learn the parts and uses of sheep, determine the age of sheep by their teeth, care for sheep, and show sheep.
- In level 2, explore sheep diseases, determine lamb yield grades, learn to ear tag and vaccinate, and deliver a lamb.
- In level 3, prepare an operation budget, prepare a marketing plan, and design the ideal sheep herd.

Small Pets 1

Identify hazards for pets, design a shelter for a pet, and learn about a pet's nutritional needs.

Small Pets 2

Learn about a pet's digestive tract, invent and design a pet toy, and examine a pet's health.

Small Pets 3

Learn about pet photography, care for newborn animals, and explore careers in pet care.

Swine

Learn about the nutritional needs of pigs, ethical care of pigs, preparation for showing, making good financial decisions, and judging.

- In level 1, study swine breeds, feed and care for pigs, complete an income and expense budget, and identify pork byproducts.
- In level 2, learn to select quality pork, learn to keep swine healthy, design a swine operation, and explore the swine industry.
- In level 3, study swine genetics, practice baby pig management, design a farrowing facility, and learn to prevent swine diseases.

Vet Science 1

Learn about different animal species, explain the roles that animals have in society, learn about body systems and organs, and study animal behaviors.

Vet Science 2

Complete an animal health record, learn about animal diseases and how they spread, learn about animal parasites and their controls, and learn about veterinary careers.

Vet Science 3

Study animal reproduction, preventative medicine, genetics, and careers in vet science.

EXHIBIT INFORMATION

Youth enrolled in any Animal Science project will be eligible for a general project show exhibit opportunity in the Animal Science 1 or Animal Science 2 classes based on years in the project. Many counties also offer live animal exhibit opportunities.

Career & Leadership Development

Career Development • Childcare • Communications • Consumer Education • Leadership

CAREER DEVELOPMENT

Illinois 4-H prepares youth to make decisions about their career and college paths. Build skills that help you succeed in LIFE.

Build Your Future

Explore potential careers while you create your own business plan and career portfolio.

CHILDCARE

Learn what it takes to be a responsible, caring, trustworthy, competent, capable, and safe babysitter.

Babysitting

Learn about the ages and stages of child growth and development, safety, food and nutrition, how to handle emergencies, appropriate activities to implement with children, and the business of babysitting.

COMMUNICATIONS

Effective communication drives all aspects of day-to-day life. You'll learn how we communicate, learn different modes of communication, and learn how to strengthen your own communication skills.

Communications 1

In level 1, learn about active learning, communication preferences, aggressive communication, visual aids, making introductions, and letter writing.

Communications 2

In level 2, learn about conflict resolution, communicating in social media, understanding cultural differences, writing press releases and speeches, and working in communication careers.

Communications 3

In level 3, learn about electronic communication, evaluate advertisements, write cover letters and résumés, and become a digital storyteller.

Journalism, News, & Social Media

Find out how technology and social media affect the flow of news and information you see every day. Learn about writing and developing visual content for online, print, and broadcast media as you are making news.

Public Speaking

Youth learn to speak with confidence. Learn and practice the skill of public speaking as you learn to adjust your tone, pacing, and cadence to speak effectively in front of a group.

CONSUMER EDUCATION

Money management may be one of the most important skills you can learn. Improve your money management skills and become a more informed consumer. Learn to distinguish between wants and needs; identify, set, and evaluate goals; and track expenses and income.

Entrepreneurship: Be the E

Learn what it takes to start your own business!

- In level 1, learn what an entrepreneur is, identify successful traits of entrepreneurs, identify your personal talents, and learn about businesses.
- In level 2, learn business languages, develop a plan for your product, and learn to market your product.
- In level 3, design a marketing plan and create a business plan.

My Financial Future 1

In level 1, study real-life financial scenarios, study future careers in finance, set SMART goals, and create spending plans.

My Financial Future 2

In level 2, learn how to manage financial records, choose payment methods, and manage credit.

READY FOR YOUR CURRICULUM?

Talk to your local Extension office about ordering curriculum, or head to go.illinois.edu/ShopIL4H

Career & Leadership Development

Career Development • Childcare • Communications • Consumer Education • Leadership

LEADERSHIP

Leaders build relationships, serve as a good role model, and help others. Leaders influence and support others in a positive manner for a shared goal. Learning about yourself and how you work with others is a key part of your leadership skills.

Leadership 1*

In level 1, learn about the seven skill areas: understanding self, communicating, getting along with others, learning, making decisions, managing, and working in groups.

Leadership 2*

In level 2, develop a positive self-image, use technology to communicate, explore different ways of learning, practice making good decisions, and manage your resources.

Leadership 3*

In level 3, explore leadership styles, work with local media to showcase your club activities, and investigate community resources.

*This project can be completed individually or as a group project by a club.

Civic Engagement

Civic Engagement • Family History • Intercultural • Service Learning

CIVIC ENGAGEMENT

4-H empowers young people to be actively engaged in their communities and the world. Youth learn about civic affairs, build decision-making skills, and develop a sense of understanding and confidence in relating to and connecting with other people. These life skills help grow 4-H youth into true leaders.

Civic Engagement 1*

In level 1, learn more about yourself, your family, and your friends.

Civic Engagement 2*

In level 2, find out about your community and learn how to be a good neighbor.

Civic Engagement 3*

In level 3, organize a tour of a local village, city hall, or courthouse; learn how government functions; and learn about police, fire protection, health, sanitation, safety, and tourism in your community.

FAMILY HISTORY

Uncover the rich history of your family in this genealogy project.

Family Heritage

Discover your family history as you go on a treasure hunt for information. The records you create will last a lifetime!

INTERCULTURAL

We're part of a big world. Explore your own culture, the diversity around you here in the United States, and different cultures from around the world.

Diversity & Cultural Awareness*

Members will gain self-awareness, explore beliefs and views of others, develop skills for engaging others who are different from themselves, and become inspired to continue their journey of cultural awareness.

Passport to the World*

Study another country by exploring its government, geography, culture, people, economy, and environment. Dive deeper with activities that explore music, cooking, crafts, and more.

SERVICE LEARNING

4-H members are four times more likely than their peers to serve their community.

Service Learning 1*

In level 1, plan and carry out a service project by researching a need in your community and serving that need.

Service Learning 2*

In level 2, plan and conduct a service project, conduct a walk-about to observe needs and assets in your community, and survey community members about their needs and identify solutions to those needs.

*This project can be completed individually or as a group project by a club.

SERVE AND LEARN ALL YEAR LONG!

4-H club engagement in service is a valued part of the Illinois 4-H experience for thousands of youth each year and teaches valuable lessons.

There is a tremendous need for service to support the physical and mental health of our communities, so we want to provide ways in which 4-H clubs and members can provide those services.

Register your community service project, find out more about the National Day of Service, and download resources at go.illinois.edu/IL4HCommunityService

SPECIAL PROJECTS
Projects in this category are a great opportunity for an introductory project experience but are not eligible for competitive exhibit.

Cloverbuds**

Cloverbud clubs may be independent clubs or they may meet at the same time as 4-H multi-project clubs. Most activities are leader-guided and do not use books. To sign up a 5- to 7-year-old for Cloverbuds, simply select "Cloverbuds" as your project.

Collectibles**

In this project, you collect what you love and then showcase your collection. Learn to develop a budget and inventory your collection.

Exploratory**

As a first-year member, learn about the many 4-H project areas, complete a mini-project, learn about your new club, and involve your family and friends in Illinois 4-H!

**These projects are not eligible for competitive exhibit.

What's a CLOVERBUD?

Creativity
Play
Learning
Fun

for children ages 5 to 7

4-H CLOVERBUD CLUBS ARE A GREAT INTRODUCTION TO 4-H EXPERIENCES ...
During club meetings, youth work as a group on projects perfect for their age. Cloverbud clubs may be independent clubs or they may meet at the same time as a 4-H multi-project club. Most Cloverbud activities are leader-guided and do not use member books. Enrollment is easy. Simply select "Cloverbuds" as your project. The Big Book of 4-H Cloverbud Activities is recommended as a resource for Cloverbud leaders to use with their club. Additional resources for this age group can be found at go.illinois.edu/ShopIL4H

Enrolling in Cloverbuds is easy! Simply select "Cloverbuds" as your project!

Creative & Cultural Arts

Clothing & Textiles • Creative Writing • Interior Design • Photography • Theatre Arts • Video • Visual Arts

CLOTHING & TEXTILES

Explore clothing construction, shopping, embellishment, and design!

Clothing Embellishment

Decorate or modify your clothing and clothing accessories using embellishment methods like dyeing, painting, embroidery, beading, distressing, and more.

Costume Design

Use creativity, along with sewing and construction skills, to design and create costumes for yourself and others.

Sewing 1

In level 1, learn about sewing notions, sewing machines, color, body types, fabrics, and basic sewing skills.

Sewing 2

In level 2, learn how to fit patterns, sew with different fabrics, test fabrics, sew darts and curves, make buttonholes, and insert zippers, interfacing, and pockets.

Sewing 3

In level 3, learn to sew with sergers, use pressing tools, care for fabric, insert a lining, sew with specialty fabrics, and practice advanced techniques.

Shopping In Style 1-6

Learn to make wise decisions in choosing a wardrobe that fits your budget and compliments your style.

CREATIVE WRITING

In this project area, 4-H members will explore and learn about multiple writing genres and work on the development of themes, plot, character, and more.

Creative Writing

Discover the writer in you! Find inspiration for writing, develop a theme, create a plot, develop main characters, learn the art of poetry and more, as you hone your writing craft.

INTERIOR DESIGN

Whether you live in the country or city, in a house, apartment, or mobile home, there are things to learn that will help make the space you live in beautiful and functional. Learn how to use design, color, texture, and space to make your home a fun and comfortable place to be.

Interior Design

Apply design elements and principles as you plan your own room. Identify your decorating style. Use "green" design practices to create a new look for your space.

PHOTOGRAPHY

From learning about camera equipment to capturing great images and sharing what you have learned with others, you are bound to love photography!

Photography 1

In level 1, practice techniques for taking quality photographs. Learn about lighting, interesting backgrounds, and photo composition.

Photography 2

In level 2, learn about shutter speed and f-stops, use special effects in photos, compose photos using the "rule of thirds," and take photos from different angles.

Photography 3

In level 3, experiment with wide-angle and telephoto lenses, create different lens filters, use a light meter, and use exposure to create a mood and tell a story.

THEATRE ARTS

Theatre arts opens the world of theatre to youth with activities in communication, improvisation, pantomime, script writing, cultural and historical influences, stage design, and costume design.

Theatre Arts 1

In level 1, express yourself through movement, voice, speech, and characterization. Create and present a play, or participate in improvisation, pantomime, monologues, or clowning.

Theatre Arts 2

In level 2, explore communication, character development, play development, and play production.

Theatre Arts 3

In level 3, design costumes and stage sets, create sound effects, apply makeup for a character, and experiment with lighting.

VIDEO

The video project exposes youth to filmmaking, digital storytelling, and videography through workshop modules that assist youth with making their own films.

Video*

Explore video techniques and create a video to share with others.

*This project can be completed individually or as a group project of up to five members by a club.

Creative & Cultural Arts

Clothing & Textiles • Creative Writing • Interior Design • Photography • Theatre Arts • Video • Visual Arts

VISUAL ARTS

Do you want to express yourself, be creative, or make an impression? You will get to work with paint, chalk, metal, wood, food, scrapbooking, paper, computers, and much more!

Chalk, Carbon, & Pigment

Demonstrate and master techniques using acrylics, oils, watercolors, pencil, or chalk. Create drypoint etching or make a wood block stamp.

Clay

Creativity is the key when working with clay. Learn to mold, shape, and see an idea become reality before your eyes!

Computer-Generated Art

In this project, your computer is the medium you use to create art. Computer-generated art refers to any form of digital imagery or graphic art that is produced with the aid of a computer.

Fiber

Explore 11 different fiber arts as you learn to use natural materials and apply principles of design in a variety of finished products. Duct tape crafts fit under this project.

Food Decorating

Practice simple decorating techniques as you decorate cookies, cupcakes, and cakes. As you advance, expand to working with stacked or tiered cakes.

Glass & Plastic

You may not think of glass as being a traditional medium; however, glass comes in many forms. Members can create stained-glass art using the copper foil method or use heat to reshape existing glass. This medium also includes original creations with plastic blocks.

Heritage Arts

Heritage arts are traditional crafts learned from another person or from a pattern. Some examples include cross-stitch, knitting, crocheting, needlepoint, embroidery, macramé, basket making, candles, pysanky, leather, handmade dolls, costumes, felting, or candlemaking.

Leather

Artistic work using leather comes in many forms. Explore leather techniques such as stamping, braiding, carving, and tooling.

Metal

Metal art includes any original item made of metal such as sculpture, tin punching, engraved metal, and jewelry.

Nature

Take a walk outside and you will see artistic elements at every turn. Nature provides the medium for art in this project. Learn to make original items made of natural materials such as wreaths, cornhusk dolls, etc.

Paper

Explore the world of paper arts, from origami to cardmaking to paper making, quilling, and papier-mâché.

Quilting

Quilting is an art form that has been a part of American culture for centuries. Those enrolling in this project should already have some sewing experience. You'll learn basic quilting and piecing techniques; selecting appropriate fabrics; quilting equipment; options for finishing quilts, tie quilts, bindings, and machine quilting; and exploring the unique patterns and history associated with the art of quilting.

Scrapbooking

Scrapbooking preserves happy memories of important days. Beginning members will learn to create a layout and use simple embellishments. Advanced users will learn to use die-cuts, stamps, fiber, wire, and buttons to personalize their pages.

3-Dimensional Mixed Media

Creating free-standing art allows your products to be seen from all sides. A mixed media piece includes at least three different media, with no one medium making up more than 40 percent of the item.

Wood

Wood carving, sculptures, collages, and wood burning are a few of the items included in this project. The focus of this project is art.

Environmental Sciences

Entomology • Fishing & Wildlife • Forestry • Geology •
Natural Resources & Outdoor Living • Weather

ENTOMOLOGY

Nearly three-fourths of all animals are insects or their relatives. Learn about some of the nearly one million insect species, and how they impact our lives daily.

Beekeeping 1

In level 1, learn basic beekeeping facts, such as species of bees and the honey they produce, types of plants that attract bees, and equipment used by beekeepers.

Beekeeping 2

In level 2, learn to manage a colony of bees and care for their beehive. Learn basic beekeeping operations which produce extracted, chunk, or cut comb honey.

Beekeeping 3

This project is for youth who are experienced and knowledgeable in the basic care of a beehive. In level 3, learn to manage honey bee colonies, increase the number of colonies by splitting colonies, care for queens, troubleshoot risks to colonies, and use bees in pollination.

Entomology 1

In level 1, you may build a compound eye to see how an insect sees, identify insects, use a pitfall trap to collect insects, and observe insect habits.

Entomology 2

In level 2, you may make an insect collection toolkit, make insect traps and baits, create a spreading board, and investigate invasive species.

Entomology 3

In level 3, use the scientific method to investigate insects, create a dichotomous key, measure insect diversity, and experiment with mealworms.

FISHING & WILDLIFE

Whether putting your fishing line in the water or exploring animals in the forest, this project is perfect for the person who loves nature.

Sportfishing 1

In level 1, tie fish knots, make a lure, organize a fishing tackle box, identify types of fish in your area, and identify fish parts.

Sportfishing 2

In level 2, practice casting, learn about state fishing regulations, learn what attracts fish, and make your own fishing tackle.

Sportfishing 3

In level 3, clean your fishing reel, make artificial lures, refurbish old equipment, and build a kick net.

Wildlife 1

In level 1, identify species of wildlife, match wildlife to their habitats, and observe wildlife behavior.

Wildlife 2

In level 2, identify wildlife population changes, identify animals by their body parts, and learn about migration.

Wildlife 3

In level 3, consider the implications of wildlife on farmers, teachers, and legislators while you consider a wildlife-related career and advanced education.

FORESTRY

Learn about trees, forests, forest ecology, and human reliance on forests. Discover forest resources near home and around the world.

Forests of Fun 1

In level 1, learn to identify types of forests, trees, and forest products. Learn to tell the age of trees, learn about transpiration, and learn to classify types of trees.

Forests of Fun 2

In level 2, learn how trees absorb water and nutrients, learn the parts of a leaf, decode a tree's rings, and identify tree diseases.

Forests of Fun 3

In level 3, learn to use a tree key, identify trees by their bark, explore fruits from flowering trees, and identify how different cultures use forests.

GEOLOGY

Study rocks, minerals, and fossils to learn the planet's history.

Geology

In this project, learn the difference between rocks and minerals, identify fossils, describe and identify rocks, understand stages of the rock cycle, and use the scientific method to solve problems.

Environmental Sciences

Entomology • Fishing & Wildlife • Forestry • Geology • Natural Resources & Outdoor Living • Weather

NATURAL RESOURCES & OUTDOOR LIVING

Exploring, outdoor adventures, and more! If you like being outdoors, these projects are for you. Do you want to make the earth a better place to live? Hiking, camping, and backpacking can lead to exciting outdoor adventures!

Exploring Your Environment 1

In level 1, explore natural and synthetic environments, learn how we affect the environment, and solve environmental problems.

Exploring Your Environment 2

In level 2, learn how to be good stewards at home, at school, and in your community; investigate the greenhouse effect on living organisms; reduce and manage waste at home; and calculate your ecological footprint.

Outdoor Adventures 1

In level 1, pack a backpack and take a day hike, choose clothes for hikes, assemble a first-aid kit, learn about "Leave No Trace" ethics, and identify hazardous weather situations.

Outdoor Adventures 2

In level 2, learn to purify water, tie rope knots, plan a menu, select a camp stove, and select a camp site.

Outdoor Adventures 3

In level 3, pack a backpack and tent, plan food supplies, use a map and compass, develop an emergency procedure, and adopt "Leave No Trace" principles.

WEATHER

Weather affects our everyday life, from what to wear to be comfortable each day to providing water for plants and animals.

Weather 1

In level 1, learn weather terminology, compare climates, learn what weather alerts mean, and use the Beaufort Scale to determine wind speed.

Weather 2

In level 2, learn complex weather terms, learn about earth's rotation and its connection to high- and low-pressure systems, study cloud types, and calculate your family's carbon footprint.

Weather 3

In level 3, learn about air masses and fronts, monitor weather, learn about weather station models, and learn about wind chill and heat index.

READY FOR YOUR CURRICULUM?

Talk to your local Extension office about ordering curriculum, scan the code, or head to go.illinois.edu/ShopIL4H

Gardening, Agriculture, and Food Access

Agronomy • Horticulture • Plant & Soil Science • Food Access

AGRONOMY

Take a trip anywhere across Illinois, and you'll see thousands of acres of essential farm products being grown and raised on family farms. This project will equip you with the skills you need to feed the world. Test germination rates, study seed selection and seasonal pests, identify plant diseases and weeds, record important data, and track changes over time.

Corn

Learn to test corn germination, study Growing Degree Days (GDD), experiment with soil tilth, manage pests, calculate drying time, cross-pollinate plants, and determine harvest losses.

Hay

Dive into producing high-quality animal feed with hands-on learning about hay, alfalfa, and other crops grown as animal feed. Focus on growing, harvesting, and understanding the importance of the plants we use to feed livestock.

Soybeans

Learn to select and germinate seeds, experiment with planting depth, study disease-resistant factors, and explore careers related to crops and soil.

HORTICULTURE

Horticulture is the science of growing living things, such as fruits, flowers, vegetables, and ornamental plants. There are two divisions: Flowers and Vegetables.

Floral Design

Discover the art of arranging flowers and plant materials creatively and to be visually pleasing. Learn about color, balance, and shape while making beautiful arrangements for a variety of occasions!

Floriculture Display

Choose the method that works best for you to display your floriculture knowledge that does not fit into the other floriculture categories.

Flower Preservation

Create a poster board or artistic display based on your preserved flowers. Learn more about the art of drying or pressing flowers to keep their beauty long after they've been picked, while making long-lasting decorations to add beauty to any space.

Landscape Design

Landscape design is the process of planning and creating outdoor spaces and integrating diverse plants to make them functional and attractive. Learn how to develop a small landscape design/drawing or, on a larger scale, on a sample map provided to you. Beginner and advanced categories available.

Ornamental Display

Showcase your eye-catching plant arrangements using your creativity to decorate or enhance any space. Practice skills for mini-gardens, terrariums, and mixed planters.

Plant Propagation

Learn the skills required to start new plants from seeds, cuttings, or other plant parts for you to grow and multiply your favorite flowers or herbs.

Vegetable Gardening 1

In level 1, learn to plan and plant a garden, grow plants from roots, make a rain gauge, and harvest vegetables.

Vegetable Gardening 2

In level 2, learn to start seeds indoors, understand how plants respond to light, grow new plants from plant parts, and make a worm box.

Vegetable Gardening 3

In level 3, learn to test and improve soil, extend growing seasons, cross-pollinate flowers, dry herbs, and pickle vegetables.

Vegetable Gardening 4

In level 4, learn to double-crop, learn about plant genetics, practice integrated pest management, and start a plant business.

Gardening, Agriculture, and Food Access

Agronomy • Horticulture • Plant & Soil Science • Food Access

PLANT & SOIL SCIENCE

It's more than just dirt. Soil gives us life and food. Find out about soil, insects, and how they affect the crops we grow and the food we eat.

Cover Crops

Investigate new planting processes, explore genetic modification, and develop new products to learn how cover crops can benefit agriculture and the environment.

Plants & Soils 1

Collect soil and discover what animal life is present, learn how plants prevent soil erosion, conduct soil tests, and compare how soil types affect growth.

Plants & Soils 2

Identify the stages of plant life cycles, recognize plant parts, experiment with seed germination methods, and propagate plants.

Plants & Soils 3

Learn how plants compete for air, water, light, and nutrients, demonstrate the importance of soil nutrients, learn how plants adapt to different light levels, and understand seeds and planting depths.

FOOD ACCESS

While not a standalone exhibit opportunity, Food Access projects are encouraged as a focus area under any of the following categories: Vegetable Gardening, Leadership, Civic Engagement, and Service Learning.

Healthy Living

Food • Health

FOOD

4-H offers learning opportunities and resources that help kids make healthy food choices and develop their food purchasing and preparation skills.

Cooking 101

Among other topics, youth learn how to use MyPlate, avoid spreading germs while cooking, measure and mix ingredients, test baked goods for doneness, brown meat, and set the table for a family meal.

Cooking 201

Topics include understanding and preventing foodborne illnesses, thawing frozen foods, proper knife techniques, how to read Nutrition Facts labels, and how to make soups, rice, pasta, and other foods.

Cooking 301

Youth practice making bread, grilling meats, vegetables, and fruit, and making butter. Youth learn about yeast, gluten, and different types of fats.

Cooking 401

Youth learn about herbs and spices, and how to make ethnic foods. Youth also practice making cakes, candy, pastries, and pies.

Food Preservation

Preserving your own garden produce can help extend your family's food budget while guaranteeing your food is healthy and safe. You can choose from several preservation methods: canning fruits and vegetables; making jams, jellies, and preserves; freezing fruit and vegetables; drying produce and meats; and making pickles.

Global Gourmet

Create rich and delicious meals from Mexico, Africa, Japan, India, Italy, Greece, and Germany as you explore food history, customs, and nutrition to better understand our world.

Kitchen Boss

Kitchen Boss is designed for advanced-level youth interested in developing cooking skills at home or exploring cooking as a profession. With a focus on the culinary approach, learners try new cooking methods, become familiar with kitchen tools and equipment, and experiment with ingredients and flavors.

Science Fun with Dairy Foods: The Case of the Missing Milk!

This project is designed for beginning-level youth interested in food science. In this project, your kitchen will become a laboratory as you observe and experiment with dairy products. As a member of the Dairy Police Task Force, you will learn the science behind butter, cheese, and curds while solving the mystery of The Missing Milk.

Science Fun with Kitchen Chemistry

Join the Terrestrial Alien Defense Academy and figure out how to outsmart the aliens by doing experiments in your kitchen. Learn about what matter is and how it changes form; explore the different properties of matter; find out about acids and bases; and discover how everyday items and kitchen ingredients can be used in fantastic tests! Designed for beginners but appropriate for all levels.

What's on Your Plate: Exploring Food Science 1

Learn "The Secrets of Baking" with activities to understand the science of baked goods–gluten, leavening, and proper mixing–and the best methods for making these foods.

What's on Your Plate: Exploring Food Science 2

"The Power of Protein Chemistry" explores how eggs are used in foods and how milk turns into cheese.

What's on Your Plate: Exploring Food Science 3

Activities in "The Inner Mysteries of Fruits and Vegetables" investigate how to prepare fruits and vegetables so they taste and look appealing in color and texture.

What's on Your Plate: Exploring Food Science 4

"Be a Food Scientist" lets learners look at a day in the life of a food scientist and practice being one as they create a new beverage and learn an essential food science skill: crystallization.

Healthy Living

Food • Health

HEALTH

Being healthy and keeping fit are what this project area is all about. 4-H offers learning opportunities and resources that help you make healthy choices, create plans for fitness, and increase knowledge of personal safety.

Everyday Food and Fitness

Learn how to prepare healthy and hearty snacks using MyPlate as a guide, and discover how powerful healthy food can be for your body and mind. Fun and easy recipes help build your skills in the kitchen. See how well your current diet fits into the MyPlate food groups. Find out what makes grains great, and why vitamins and nutrients are so beneficial. This project shows you how to add exercise to a healthy diet and find the path to a better quality of life.

Health Exploration and Innovation

Health project learning for topics not covered in the project offerings. Use the NEW Project Learning Resource and the activities for ideas.

Sports Nutrition: Ready, Set, Go

Eating well and exercising daily are two keys to a healthy life. This project shows why these habits are worth forming. Learn how to balance the calories you eat with the calories you burn, why to hydrate, and how carbohydrates, protein, and fats work to support your body and mind. Use what you learn as you compete in sports or just want to increase your fitness level. This project is designed for the 4-H member and is appropriate for the intermediate skill level and grades 6-8.

Your Feelings Matter

This project lets you explore what emotions are, how to express them, and how to react to them positively. After this project, you'll have tools and techniques to guide you through a variety of emotional situations. This project is aimed at youth who are just beginning to explore healthy living topics.

Your Thoughts Matter: Navigating Mental Health

Intended for advanced-level youth who are interested in learning more about mental health, why mental health is important to overall wellbeing, and steps that promote understanding and action. This project is not intended as a resource for those in crisis.

READY FOR YOUR CURRICULUM?

Talk to your local Extension office about ordering curriculum, scan the code, or head to go.illinois.edu/ShopIL4H

STEM: Science, Technology, Engineering & Math

Aerospace • Building Bricks • Computer Science • Electricity • Robotics • Small Engines • Technologies • Tractor • Welding • Woodworking

AEROSPACE

Whether you're flying kites, hot air balloons, airplanes, or rockets, it's all about moving through air and space.

Aerospace 1

In level 1, youth ages 8-9 can build a marshmallow rocket, learn about different careers in aviation and space, and explore how an airplane works.

Aerospace 2

In level 2, build and launch a rocket, build and fly a model plane, learn about types of aircraft, and make a paper helicopter.

Aerospace 3

In level 3, experiment with various gliders, make a fighter kite, learn about remote control flights, and build and launch a balloon rocket.

Aerospace 4

In level 4, construct an altitude tracker, explore pilot certification, plan a flight route, and build a box kite.

BUILDING BRICKS

Use your imagination and construction skills to make your own plastic building brick creations.

Creating with building bricks builds creativity, engineering, and construction skills as you create original designs with plastic building bricks, like LEGO® and MEGA BLOKS®!

COMPUTER SCIENCE

Learn the fundamental principles of computer programming while you explore and create.

Text-Based Programming

Discover the basic elements of programming within text-based programming languages such as Java, Python, and C. In this project, build on fundamental concepts such as sequence, iteration, conditionals, variables, modularization, and machine coding.

Visual-Based Programming

Discover the basic elements of programming within Scratch and other visual programming language environments. Learn fundamental concepts about sequence, iteration, conditionals, variables, modularization, and interfacing with external hardware.

ELECTRICITY

Look around you and no matter which direction you turn, you will see electricity at work! It might be a clock on the wall, your computer showing a video, or the microwave preparing your dinner.

Electricity 1

In level 1, learn to make a flashlight, switch, and simple circuit; learn about magnetism and make a compass; and build an electromagnet, galvanometer, or motor.

Electricity 2

In level 2, learn about Ohm's law; use a volt-ohm meter; and build a parallel or series circuit, a 3-way switch, or a burglar alarm.

Electricity 3

In level 3, assemble an electric toolkit, measure electric usage of appliances, replace electrical switches, and determine electrical loads.

Electricity 4

In level 4, learn about electronics, diodes, transistors, LEDs, photocells, resistors, and capacitors. You can also build an amplifier.

ROBOTICS

Robots do surgery, build cars, and assist us with our complex modern lives. This project is all about these amazing machines and learning to build and program your own robotsto solve issues you face.

Junk Drawer Robotics Level 1

In level 1, build robots from everyday items without using computers. Explore robot arms, pneumatics, arm designs, and three-dimensional space. Order the Presenter's Guide and the Youth Notebook.

Junk Drawer Robotics Level 2

In level 2, build robots from everyday items without using computers. Explore robots that move with legs and wheels and move underwater. Order the Presenter's Guide and the Youth Notebook.

Junk Drawer Robotics Level 3

In level 3, build robots from everyday items without using computers. Explore sensors, analog, and digital systems. Order both the Presenter's Guide and the Youth Notebook.

STEM: Science, Technology, Engineering & Math

Aerospace • Building Bricks • Computer Science • Electricity • Robotics • Small Engines • Technologies • Tractor • Welding • Woodworking

Robotics 1

In level 1, use LEGO® Spike Prime or EV3 technology to learn what a robot is, how to build one, and how to program it.

Robotics 2

In level 2, use LEGO® Spike Prime or EV3 technology to learn new robot configurations and programming challenges.

Robotics 3

In level 3, learn to program robots using free range open source hardware and software. Learn how to build and program a robot, understand the difference between closed and open source design, and configure robots.

SMALL ENGINES

Youth who love figuring out how things work will enjoy the Small Engines projects. Get hands-on experiences that will help you understand how machines, such as lawn mowers and model airplanes, operate and how to keep them running.

Small Engines 1

In level 1, identify parts of an engine, identify different oil grades, experiment on engine systems, and learn to safely start a small engine.

Small Engines 2

In level 2, distinguish between engine types, use engine specialty tools, make carburetor adjustments, and prepare a lawn mower for storage.

Small Engines 3

In level 3, learn to identify engine problems by sound; take engines apart and reassemble; remove, sharpen, and replace a mower blade; and research a career related to small engines.

TECHNOLOGIES

4-H is taking emerging technologies by storm! We've added projects that will spark the imagination of builders, makers, and tinkerers of all ages.

eSports

Learn about the exciting field of competitive electronic sports, also known as eSports, in this cutting-edge project area. Learn about the PC and console gaming industries, the software and hardware involved, as well as the fields of competitive and professional gaming.

Maker

Learn about the Maker Movement and develop skills in 3D design, electronics, and other rapid prototyping techniques that will aid you in making gadgets and devices from scratch.

Unmanned Aerial Vehicles/Systems: Drones

Learn how unmanned aerial vehicles (UAV), unmanned aerial systems (UAS), and drones work, plus fundamental aerospace principles, commercial uses of drones, FAA regulations, and basic UAV operation.

TRACTOR

Tractors are an essential part of agriculture. Learn about safety, maintenance, parts of the tractor, fuels, engines, hydraulics, and electrical systems.

Tractor A

In level 1, learn the parts of a tractor, tractor maintenance, and how to avoid machine hazards.

Tractor B

In level 2, learn farm and tractor safety, different fuels, and engine cooling systems.

Tractor C

In level 3, learn how to safely connect PTO and hydraulics, increase your knowledge of farm safety, and learn about different oil systems.

Tractor D

In level 4, learn the mechanics and maintenance of an engine, learn safety with chemicals, and advance your skills in operational systems and equipment.

Talk to your local Extension office about ordering curriculum, or scan the code to head to go.illinois.edu/ShopIL4H

STEM: Science, Technology, Engineering & Math

Aerospace • Building Bricks • Computer Science • Electricity • Robotics • Small Engines • Technologies • Tractor • Welding • Woodworking

WELDING

Welding can bring personal satisfaction as you create items which make your life better. Industrial items created should be entered in the Welding exhibit class. Artistic items created should be entered in the Visual Arts Metal project.

Welding

The welding project is for youth in grades 7 and higher. Learn about welding equipment, electrodes, and basic arc welding processes.

WOODWORKING

The woodworking project teaches the full scope of constructing a wood piece from design to completion. Start with a piece of wood and end up with a handcrafted item.

Woodworking 1

In level 1, learn the basics of woodworking, use a hammer and hand tools, apply glue, and select wood finishes.

Woodworking 2

In level 2, learn wood species, select wood types, use a combination square, cut on an angle, and sand.

Woodworking 3

In level 3, learn about hinges, clamps, joints, stains, angles, and T-bevels.

Woodworking 4

In level 4, use a table saw, router, circular saw, and scroll saw, and experiment with adhesives and chemical wood strippers.

READY FOR YOUR CURRICULUM?

Talk to your local Extension office about ordering curriculum, or head to go.illinois.edu/ShopIL4H

Shooting Sports

Archery • Pistol • Rifle • Shotgun

All youth wishing to take a shooting sports project must be enrolled in a 4-H Shooting Sports club under the supervision of a certified 4-H shooting sports instructor.

Not all counties offer Shooting Sports clubs. To find out about Shooting Sports clubs in your area, contact your local Extension office.

Archery

Experience the difference in bows, learn the parts of bows and archery equipment, learn archery safety, and compete in shooting events. Archery is open to youth ages 8 to 18.

Pistol

Learn the components of pistols and cartridges, learn pistol vocabulary, practice range safety, and compete in shooting events. Air pistol is open to youth ages 10 to 18. The minimum age to participate in .22 caliber pistol is 12.

Rifle

Learn the components of rifles and equipment, learn about rifle safety, or compete in shooting events. Air rifle is open to youth ages 8 to 18. The minimum age to participate in .22 caliber rifle is 10.

Shotgun

Learn the parts of a shotgun and shotgun safety measures. Required age for shotgun is 10 to 18.

ILLINOIS SHOOTING SPORTS LEARN BY DOING

4-H Shooting Sports clubs build on the solid positive youth development principles found in all 4-H club work.

We want to stay connected to you!

Illinois 4-H Alumni Association

We want to create a lifelong connection to our 4-H alumni! Were you a member of the 4-H program? If so, you are one of 25 million Americans who share a unique bond. The Illinois 4-H Alumni Association was established in 2016 and is seeking to identify 4-H alumni to build a network of 4-H alumni throughout Illinois and beyond.

The mission of the Illinois 4-H Alumni Association is to create a lifelong, statewide community of 4-H alumni and provide increased opportunities for meaningful engagement to increase awareness, pride, participation, volunteerism, and philanthropic commitment to Illinois 4-H.

We each have our own 4-H story. 4-H may have helped you launch a career path or gave you the skills to succeed in life. 4-H may have taught skills from science to leadership or prepared you for career and college readiness.

4-H continues to build responsible and caring adults who are more likely to give back to their communities. The Illinois 4-H program has a strong history of making an impact on youth, building leaders, and preparing them for success.

We want to learn about your 4-H story!

Register for a free membership to the Illinois 4-H Alumni Association:

go.illinois.edu/4Halum

- Receive quarterly newsletters.
- Be invited to alumni events with opportunities to network and engage.

Share your 4-H Story:

go.illinois.edu/4HAlumniStory

Share 4-H News:

go.illinois.edu/4HAlumniNews

Stay Connected

LinkedIn:
go.illinois.edu/LinkedIn4Halumni

Twitter:
twitter.com/IL4Halumni

Facebook:
facebook.com/groups/IL4Halumni

Instagram:
instagram.com/IL4Halumni

Illinois 4-H Alumni Association
801 N. Country Fair Drive, Suite E
Champaign, IL 61820

Email: il4halumni@illinois.edu

4h.extension.illinois.edu/about/alumni

In 4-H,

your child will **build skills** they'll need to be successful–at home, school, and in their community while they explore amazing careers opportunities. 4-H mentors **empower** young people to set goals and achieve big dreams. Your child will feel **safe and welcomed** while they pursue personal interests and build **confidence in their skills**. 4-H serves all youth from age 5 to 18.

STATE 4-H OFFICE
801 N. Country Fair Drive, Suite E
Champaign, IL 61821
PHONE: (217) 333-0910
EMAIL: illinois4H@illinois.edu

4H.extension.illinois.edu

Opportunity For All

Our first priority is to create a safe, inclusive space for learning, sharing and collaboration that is welcoming to people from diverse backgrounds, cultures, and perspectives. Diversity includes, but is not limited to: race, color, religion, political beliefs, national or ethnic origin, immigration or citizenship status, sex, gender identity and expression, transgender status, sexual orientation, age, marital or family status, educational level, learning style, pregnancy, physical appearance, body size, and individuals with disabilities.

Membership Guidelines

Youth who are at least 8 years of age and have not reached their 19th birthday on the start date of the program year may enroll as a member in 4-H clubs or participate as an independent member. Youth who are 5 to 7 years of age on the start date of the program year (September 1) may enroll as a 4-H Cloverbud. All 4-H club members pay an annual $20 program fee. Financial assistance is available for families who cannot afford this fee.

A youth who enrolls in a 4-H club must attend at least one meeting to be called a 4-H member. 4-H members must be enrolled in at least one project.

A member may add or delete projects at any time during the 4-H year. County 4-H programs may add requirements and deadlines.

Let's Get Social!

We'd love for you to follow along on social media! We'll share program highlights, event pictures, registration openings and more!

@Illinois4H

¡Se Habla Español!

Abra la aplicación de la camára en su teléfono inteligente y escanee este código para ver la version en español de la guía de selección de proyectos de 4-H.

¿Tiene preguntas sobre esta guía o de los programas de 4-H? Envíenos un correo electrónico a 4Henespanol@illinois.edu.