

## Mechanical Sciences:

### Computer Science

*Discovering Computer Science & Programming Through Scratch - Level 1*  
Level 1 Facilitator Guide  
\**Discovering Computer Science & Programming Through Scratch - Level 2 (Int./Sr.)*  
\**Discovering Computer Science & Programming Through Scratch - Level 3 (Int./Sr.)*  
\**Computer Science and Coding (Int./Sr.)*

### Electricity

Unit 1 - *Magic of Electricity*  
Unit 2 - *Investigating Electricity*  
Unit 3 - *Wired for Power*  
\*Unit 4 - *Entering Electronics (Sr. Advanced)*

### Metalworking

Unit 1 - *Introduction to Metalwork*  
Unit 2 - *Metal Fabrication*  
Unit 3 - *Advanced Metal Fabrication*  
Unit 4 - *Large Exhibit Fabrication*  
*Arcs & Sparks, Units 1-3*

### Model Rocketry

Unit 1 - *Introduction to Model Rocketry*  
Unit 2 - *Construction & Flight of Model Rockets*  
Unit 3 - *Intermediate*  
Unit 4 - *Advanced*  
\*Unit 6 - *Designer (Int./Sr.)*

### Robotics & Engineering

Unit 1 - *Give Robots a Hand*  
Unit 2 - *Robots on the Move*  
Unit 3 - *Mechatronics*  
Unit 4 - *Robotics Platforms Beginners*  
Unit 5 - *Robotics Platforms Intermediate*  
Unit 6 - *Robotics Platforms Advanced*  
Unit 7 - *Team Robotics*  
Youth Robotics Notebook  
Robotics with EV3

### Small Engines

Unit 1 - *Crank It Up*  
Unit 2 - *Warm It Up*  
Unit 3 - *Tune It Up*  
\*Unit 4 - *Advanced Small Engines-Self-Determined (Int./Sr.)*  
*Small Engines Helper's Guide*

### Woodworking

Unit 1 - *Measuring Up*  
Unit 2 - *Making the Cut*  
Unit 3 - *Nailing It Together*  
Unit 4 - *Finishing Up*  
*Woodworking Wonders Helper's Guide*



## Natural Resources:

### Beekeeping

Unit 1 – *4-H Beekeeping Division 1*  
Unit 2 – *4-H Beekeeping Division 2*  
Unit 3 – *4-H Beekeeping Division 3*  
\*Unit 4 - *Advanced Beekeeping (Int./Sr.)*  
*4-H Beekeeping Helper's Guide*

### Entomology

*Teaming with Insects – Level 1*  
*Teaming with Insects – Level 2*  
*Teaming with Insects – Level 3*  
*Teaming with Insects Facilitator's Guide*

### Gardening

Unit 1 – *See Them Sprout*  
Unit 2 – *Let's Get Growing!*  
Unit 3 – *Take Your Pick*  
\*Unit 4 (Sr. only) – *Growing Profits*  
*Gardening Helper's Guide*

### Outdoor Adventures

Unit 1 – *Hiking Trails*  
Unit 2 – *Camping Adventures*  
Unit 3 – *Backpacking Expeditions*  
*Outdoor Adventure Helper's Guide*

### Shooting Sports

*Air Rifle*  
*Archery – Basic Archery*  
*.22 Rifle – 4-H Rifle*  
*.22 Pistol – 4-H Pistol*  
*Shotgun – 4-H Shotgun*  
*Muzzleloading*  
*Air Pistol*  
*Outdoor Skills*  
*Western Heritage – 4-H Western Heritage Project*

### Sportfishing

Unit 1 – *Take the Bait*  
Unit 2 – *Reel in the Fun*  
Unit 3 – *Cast into the Future*  
*Sportfishing Helper's Guide*

### Wildlife

Unit 1 – *The Worth of Wild Roots*  
Unit 2 – *Living Wild in an Ecosystem*  
Unit 3 – *Managing in a World with You and Me*  
*Wildlife Stand Alone*

## Supplemental:

### Self-Determined

#### Cloverbuds (Ages 5-7 Years):

Cloverbuds: A 4-H Discovery Program for 6-8 Year Olds  
Cloverbuds Activity Package  
*Healthy Me!*

## Learn More

Colorado4h.org

Contact your local Extension Office at  
<https://extension.colostate.edu/staff-directory/>



COLORADO STATE UNIVERSITY  
EXTENSION



2024-2025

# State 4-H Project List

# 4-H Age Categories

Juniors: 8-10 years, Intermediates: 11-13 years, Seniors: 14-18 years (as of Dec. 31, 2024)

Items in orange are new or renamed from last year.

Routt projects with leaders to ask questions in GREEN

Routt projects with leader run workshops in BLUE.

For more information and exhibit requirements go to [Colorado4h.org](http://Colorado4h.org).

Curriculum titles are in italics and may not reflect actual exhibit requirements.

## Animal Science:

### Beef

Breeding, Market

*Beef Resource Handbook*

### Cats

*Unit 1 - Purr-fect Pals*

*Unit 2 - Climbing Up*

*Unit 3 - Leaping forward*

*Cat Helper's Guide*

### Dairy Cattle

*Dairy Resource Handbook*

### Dog

*Dog Resource Handbook*

*Obedience, Rally, Showmanship Supplements*

### Goats

Breeding, Market, Dairy, Fiber, Pygmy, Utility

*Goat Resource Handbook*

### Horse

*4-H Horse Project, Horse Show Rulebook & more at Colorado4h.org*

### Horseless Horse

*4-H Horse Project*

*Unit 1 - Making Horse Sense*

*Unit 2 - Hooves, Health & Horsemanship*

*Unit 3 - Breaking Ground*

*Unit 4 - Brushing Up on Horses*

### Poultry

Breeding Chickens, Market Chickens, Show Birds,

Breeding Turkeys, Market Turkeys, Duck, Geese,

Pigeons & Game Birds

*Poultry Resource Handbook & more at Colorado4h.org*

### Rabbits

Breeding/Show, Market, Companion (Pet)

*Rabbit Resource Handbook for Breeding, Market, & Pet*

*Rabbit Projects*

### Sheep

Breeding, Market

*Sheep Resource Handbook for Market & Breeding*

*Projects*

## Animal Science Continued:

### Swine

Breeding, Market

*Swine Resource Handbook for Market & Breeding Projects*

### Veterinary Science

*Unit 1 - From Airedales to Zebras*

*Unit 2 - All Systems Go!*

*Unit 3 - On the Cutting Edge*

*Vet Science Helper's Guide*

## Communication, Arts & Leisure Sciences:

### Ceramics

Unit 1 - Glazes

Unit 2 - Underglazes

Unit 3 - Overglazes

Unit 4 - Unfired Finishes

Unit 5 - Porcelain Dolls

Unit 6 - Hand-Constructed with Stone or Earthenware

*Ceramics - All Units*

### Filmmaking

Animation, Narrative, Documentary, Promotional, Voices of 4-H History

*4-H Filmmaking Workshop DVD - Movie Magic*

### Global Citizenship

Study of Another Country, Host a Delegate from Another Country, \*Exchange Delegate to Another Country (Int./Sr.)

*Global Citizenship*

### Leadership

*\*Leadership Skills You Never Outgrow (Jr. Only)*

*\*Leadership Road Trip (Int./Sr.)*

*\*Put Leadership to Practice/Club Leadership 1 (Int./Sr.)*

*\*Refining Leadership Skills/Club Leadership 2 (Int./Sr.)*

*\*Community Service Project/My Hands to Larger Service (Sr.)*

### Leathercraft

Unit 1 - Introduction to Leathercraft and Creative Stamping

Unit 2 - Beginning Leather Carving

Unit 3 - Intermediate Leather Carving

Unit 4 - Advanced Leather Carving

Unit 5 - Advanced Stamping

Unit 6 - Sewing Leather

Unit 7 - Braiding and Un-tooled Leather

Unit 8 - Master Leathercraft

Unit 9 - Making and Rebuilding Saddles

*4-H Leathercraft Manual, Leathercraft Leader Guide*

### Photography

*Unit 1 - Photography Basics*

*Unit 2 - Photography Basics (Year 2)*

*Unit 3 - Next Level Photography*

*Unit 4 - Mastering Photography*

*Unit 5 - Low Light Photography*

*\*Unit 6 - Advanced Photography (Int./Sr.) Supplement, Field Guide*

### Scrapbooking

One Page Layout, Two Page Layout, Album, \*Tag Making (Jr. Only), and \*Card Making (Int./Sr.)

*Scrapbooking*

### Visual Arts

*Portfolio Pathways - Painting and Printing*

*Portfolio Pathways - Graphic Design*

*Sketchbook Crossroads - Drawing*

*Sketchbook Crossroads - Fiber and Sculpture*

## Family Consumer Science:

### Artistic Clothing\*

*Upcycle Your Style (Applied, Stitched, Combination Design)*

*Recycled Clothing*

*Creative Sewing (Costumes, Other Items)*

*\*Buymanship (Int./Sr.)*

*\*Create Your Own (Int./Sr.)*

### Cake Decorating\*

Unit 1 - Edible Cake Decorating

Unit 2 - Single Layered Cake

Unit 3 - Two Layered Cake with Tips

*Cake Decorating, Units 1-3*

Unit 4 - Character Cakes

Unit 5 - Small Treats

Unit 6 - Cut-Up Cakes

*Cake Decorating, Units 4-6*

*\*Unit 7 - Flat Surface & Nail Flowers (Int./Sr.)*

*\*Unit 8 - Fondant (Int./Sr.)*

*\*Unit 9 - Lily Nail Flowers (Int./Sr.)*

*Cake Decorating Units 7-9*

*\*Unit 10 - Tiered Cakes (Sr. Only)*

*\*Unit 11 - Molds (Sr. Only)*

*\*Unit 12 - Create Your Own (Sr. Only)*

*Cake Decorating, Units 10-12*

### Clothing Construction\*

*Unit 1 - STEAM Clothing 1, FUNdamentals*

*Unit 2 - STEAM Clothing 2, Simply Sewing*

*\*Unit 3 - STEAM Clothing 3, A Stitch Further, 4-H Textile*

*Experiments (Int./Sr.)*

*Unit 4 - Sewing for Others*

### Foods and Nutrition

*Unit 1 - Cooking 101*

*Unit 2 - Cooking 201*

*Unit 3 - Cooking 301*

*Unit 4 - Cooking 401*

*4-H Cooking Helper's Guide*

### Specialty Foods

*Unit 5 - Outdoor Cooking & Living*

*\*Unit 6 - Cultural & Ethnic Foods (Int./Sr.)*

*\*Unit 7 - Passport to Foreign Cookery (Int./Sr.)*

### Food Preservation

*Unit 1 - Drying, Unit 2 - Freezing, Unit 3 - Boiling Water Canning, \*Unit 4 - Pressure Canning (Int./Sr.)*

### Heritage Arts

*Crochet Units 1-3 - The 4-H Crochet Handbook*

*Knitting Units 1-3 - The 4-H Knitting Handbook*

*Misc. Fiber (Needle Arts, Weaving, Spinning, Ethnic Arts, Rug Making, Macramé, etc.)*

*Misc. Non-Fiber (Beading, Silver Smithing, Paper Scrolling, etc.)*

*Quilting Unit 1 - You Can Quilt*

*Unit 2-6 - Quilting the Best Better!*

### Home Design & Décor

*Units 1-4 - Home Design & Décor Unit 1-4 Manuals*

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