



# Virginia Cooperative Extension Guide to Virginia 4-H Programming Resources

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**Revised August 201&**

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<p><b>What is 4H?</b></p>	<p>4-H is a community of young people across America who are learning leadership, citizenship and life skills.</p>
<p><b>4-H Motto</b></p>	<p>To Make the Best Better</p>
<p><b>4-H Pledge</b></p>	<p>In Support of the 4-H Club Motto, “To Make The Best Better:</p> <p>I Pledge:  My <b>Head</b> to clearer thinking,  My <b>Heart</b> to greater loyalty,  My <b>Hands</b> to larger service and  My <b>Health</b> to better living,  For my club, my community, my country and my world</p>
<p><b>Mission Mandates</b></p>	<p>Citizenship  Healthy Living  Science (STEM)</p>
<p><b>Websites</b></p>	<p>4-H Public Website  <a href="http://www.4-h.ext.vt.edu/index.html">http://www.4-h.ext.vt.edu/index.html</a></p> <p>VCE Intranet  (<a href="http://intra.ext.vt.edu/4h/">http://intra.ext.vt.edu/4h/</a>)</p>

# Virginia 4-H Programming Resources

Dr. Kathleen Jamison, Extension Specialist, 4-H Youth Development

This publication is designed to inform paid and volunteer staff on available Virginia 4-H educational materials for programming efforts. Educational materials are available to Extension unit offices through the Virginia Cooperative Extension Public 4-H Website (<http://www.1.~ à• ÈcđcÈ à~ È>). All current Virginia publications included in this guide are available on the public website. Instructions are offered on how to access publications produced outside of Virginia.

This guide is available online at: <http://www.4-h.ext.vt.edu/index.html> and can be printed locally. Program materials are listed within their respective program areas: Animal Sciences; Careers and Economic Education (CEE); Citizenship; Communications & Expressive Arts (CEA); Family Sciences (FS); Foods, Nutrition, and Health (FNH); Natural Resources & Environmental Education (NREE); Plant, Soils, and Entomology (PSE); and Science, Technology, Engineering, and Math (STEM).

Extension professionals providing leadership for 4-H program areas are listed in this publication. If no name is listed, there is currently not faculty support within that area. A brief description of the project and what 4-H'ers learn and practice is included.

Standards of Learning correlations are made where appropriate. The Virginia standards are very specific, but are designed to spiral across a child's educational experience while anchoring basic concepts and evolving improved skills / deepened understanding. 4-H project curriculum is also used to complement in-school learning with a school enrichment focus: a broadening the learning experience and deepening the application of content and skills (e.g. life skills, workplace skills, technology skills, etc.). Collaborating with a teacher at a targeted grade level is recommended to determine how the 4-H content can shift slightly to better complement the grade-level standards. You can assist teachers to deepen proficiency of specific standards of learning while providing opportunities for skills to be practiced and content to be anchored using experiential and inquiry-based learning.

Project areas can be enhanced by making connections to Career and Technical Education (CTE) information (e.g. business and Information Technology, Agricultural Education, Career Connections, and marketing):

[http://www.doe.virginia.gov/instruction/career\\_technical/programs/index.shtml](http://www.doe.virginia.gov/instruction/career_technical/programs/index.shtml)

Life skills, even for a specific content, can change to meet different delivery modes or learning situations. Review the Targeting Life Skills Model at:

<http://www.extension.iastate.edu/4h/explore/lifeskills/>

## **DFc[ fUa a ]b[ 'FYgci fWg. 'Di V']WUjcbg'**

**Publication Numbers** (\*\*\*-\*\*\*) are six-digit hyphenated numbers used to identify and download specific publications from 4-H Public Website (<http://pubs.ext.vt.edu/>).

Publications without a six digit number that are used as supplemental information to project activities

## **&" 5 ddfcj YX'Jfj[ ]b]U(!< 'W ffjW`i a`**

There are three ways that curriculum can be accepted as "research-based" approved:

æ) A numbered publication that has gone through the VCE publication process, is listed in the Virginia VCE publication list, and is available on the VCE website (<http://pubs.ext.vt.edu/>)

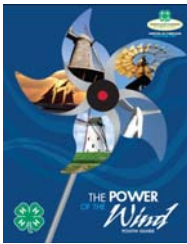
æ) Curriculum that is part of the National 4-H collection; publication is listed in the 4-H Source book or on the National 4-H curriculum website (<http://www.4-hcurriculum.org/>)

æ) A publication that has gone through a peer review in the Land Grant University system.

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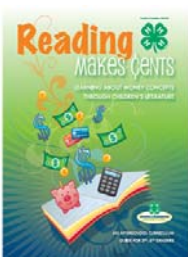
National 4-H Curriculum focuses on the three 4-H Mission Mandates: *Science* (science, engineering, technology, and applied math); *Healthy Living*; and *Citizenship*. Youth activity guides are filled with engaging, content-rich experiences that cultivate abilities that youth need for everyday living as they progressively gain knowledge about subjects that interest them. Some examples of current curriculum produced through National 4-H Council are listed below. There is associated cost (\$) with the following curriculum through the National 4-H Mail: <http://www.4-hmall.org/Home>.

### Highlighted National 4-H Curriculum:



**Power of the Wind \$** (<http://projects.4hcurriculum.org/curriculum/wind/>)

*The Power of the Wind Curriculum* is part of the National 4-H Curriculum Collection and is designed for middle school aged youth to learn about the wind and its uses. Youth work with members of a team to design, create, build, and test a wind powered device and are given opportunities to explore wind as a potential energy source in their community. This site is the online resource to supplement *The Power of the Wind* National 4-H Curriculum.



**Reading Makes Cents \$**  
(<http://projects.4hcurriculum.org/curriculum/reading/>)

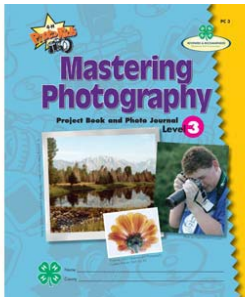
This site is the online resource to supplement *Reading Makes Cents* National 4-H Curriculum. *Reading Makes Cents* is a curriculum for children in grades 3-5. Most of the activities are standalone and designed to be completed in one session. Some of the activities build on others, but generally, you can pick and choose activities from within or among sections. This format makes the curriculum ideally suited for out-of-school time programs.



**Project Butterfly Wings** (<http://www.flmnh.ufl.edu/wings/>)

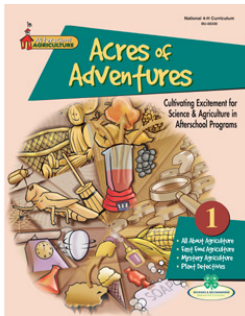
This curriculum consists of a Youth Project Guide, Facilitator's Guide and interactive web site designed to encourage adolescent interest, understanding and long-term involvement in science. Leaders and youth without previous knowledge of butterflies can participate as the

program transforms them from beginner to engaged citizen scientist. Youth participate in authentic, hands-on, collaborative research as they collect information about the butterflies in their communities and enter the data they collect into the interactive WINGS web site. Scientists and the public use this information to further scientific knowledge and view the distribution and population trends of common butterfly species.



**Photography** (<http://new.4-hcurriculum.org/projects/photography/>)

This curriculum opens the world of photography to youth. With more than 40 fun activities, this exciting all-new curriculum helps youth understand the basics of photography, then apply these skills and build on them to master more sophisticated techniques and take even better photos.



**Acres of Adventure** (<http://www.4-hmall.org/Product/4-hcurriculum-agriculture/08330.aspx>)

Adults and older youth will enjoy using these lesson plans to quickly engage youth in learn-by-doing agriculture activities within the following thematic units: Plant Detectives, Mystery Agriculture, All about Agriculture, Fast Food Agriculture.



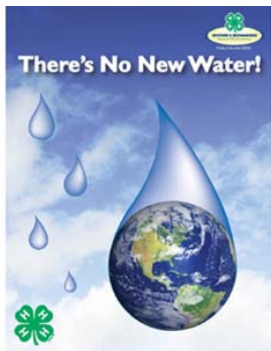
**4-H Robotics: Engineering for Today and Tomorrow** (<http://www.4-hmall.org/Category/robotics.aspx?>)

*4-H Robotics: Engineering for Today and Tomorrow* was developed by the University of Nebraska-Lincoln. This curriculum teaches basic physical science concepts related to robotic systems, the engineering design process, technology tools used for learning and communications, and the exploration of science, technology, and engineering careers. The curriculum is comprised of three tracks: Virtual Robotics (DVD), Junk Drawer Robotics (3 Facilitator Books, 1 Youth Notebook per youth), and Robotics Platforms (DVD).



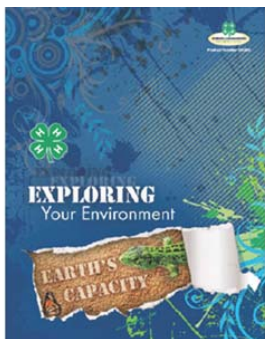
**Entomology: Teaming with Insects** (<http://www.4-hmall.org/Category/curriculum-entomology.aspx>)

Studying nature inspires creativity by demanding that youth see what is around them and requires them to use all of their senses. Because science is interconnected, many of the activities show interrelationships among insects, plants, and the environment. The curriculum, Teaming with Insects, increases youth science literacy using insects and their relatives.



**There's No New Water!** (<http://www.4-hmall.org/Product/newitems/theres-no-new-water/08420.aspx>)

*There's No New Water!* was developed by the University of California-Davis. This curriculum is grounded in the concept that water is a non-renewable, finite natural resource whose quantity and quality must be responsibly preserved, protected, used, and reused.



**Exploring Your Environment** (<http://www.4-hmall.org/Category/4-hcurriculum-exploring-your-environment.aspx>)

Exploring Your Environment was developed by the University of Minnesota. This curriculum teaches basic ecological concepts that help youth understand how nature works and how we affect it and are affected by it.



**Filmmaking Workshop** (<http://online.4-hcurriculum.org/curriculum/filmmaking/>)

This is an online space to find tools and resources about video production. On the home page of the web site, you'll find the Filmmaking Workshop videos—an 11 module “virtual workshop”, geared toward youth interested in making Science Films (including technology, engineering and applied math). Although the workshop discusses Science as a primary content area, the learning modes and principles apply across 4-H's mission mandates—Science, Healthy Living, and Citizenship.

## **Video Resources to Support Curriculum (Vodcasts): Free Downloads**

(<http://online.4-hcurriculum.org/curriculum/filmmaking/featuredfilms.aspx>)

- After the Burn
- Clearwater Revival
- Four Horizons
- Glo World
- Upstream Downstream
- Wind Inquiry
- Into the Wind
- Renewable Energies

## **Sunsetted National Curriculum**

After the current inventory is depleted, these products will be available as a download at the national curriculum website: (<http://www.4-hcurriculum.org/resources/>).

- Embryology
- A Palette of Fun
- Down-to-Earth
- Exploring Farm Animals
- Science Discovery
- Advanced Visual Arts
- Que Rico – Latino Cultural Arts

## **Miscellaneous Resources:**

- **4-H<sub>2</sub>Online** (<http://4-h.org/b/Pages/Layouts/4h2online.html>).  
4-H<sub>2</sub>Online is a community for youth to learn about water quality, water conservation and watershed issues. Throughout this site youth will find 4-H's "Exploring the Environment," Grab n-Go's, and information on how youth nationwide are addressing water issues in their communities.
- **National 4-H Directory** (<http://www.4-hdirectory.org/>)  
The National 4-H Directory of Materials is a national database of 4-H materials designed to share national and state 4-H resources with educators, 4-H club leaders, youth and volunteers, including extension, CYFERnet, and military partnerships. These materials are free or low cost from the Land Grant University system.
- **Other States' Programming Resources**  
([http://www.csrees.usda.gov/qlinks/partners/state\\_partners.html](http://www.csrees.usda.gov/qlinks/partners/state_partners.html)).  
Search by state, followed by 4-H, and then publications.  
\*\*\*Please note that each state's process will be slightly different.
- **National 4-H Web Grants** (<http://grants.4-h.org/index.do>).

## **Outside Curriculum from Partner Sources**

### **Invent It Build It/ Design Squad (WGBH, Boston) – Free Download**

([http://pbskids.org/designsquad/parentseducators/invent\\_guide.html](http://pbskids.org/designsquad/parentseducators/invent_guide.html))

This guide offers six hands-on challenges designed to spark the inventive spirit of kids aged 9–12. Whether you're running an

afterschool program, workshop, class, or event, these challenges are a fun way to bring invention to life for kids, get them thinking like inventors and engineers, and show them how invention improves people's lives. Each challenge takes about an hour, uses readily available materials, gives kids many ways to succeed, and is aligned with national science and technology standards. Additional guides related to the Design Squad process are also available for free download at the same



**Time to Invent (WGBH, Boston) – Free Download - <http://timetoinvent.org/>**



**Invention/Lemelson-MIT (<http://web.mit.edu/invent/invent-main.html>) – Free Downloads/Information**

- **Inventor of the Week**
- **Inventor's Handbook**
- **Games and Trivia**
- **Links and Resources**



**InvenTeams- High School Invention Grants (<http://web.mit.edu/inventteams/index.html>)**

Seed Money Offered for teams with accepted proposals. They are very interested in 4-H Teams. Contact Dr. Jamison if you are interested in this amazing opportunity



**Engineering is Elementary: Boston Museum of Science (<http://www.mos.org/eie/>) \$**





The *Engineering is Elementary*® (EiE) project fosters engineering and technological literacy among children. EiE is creating a research-based, standards-driven, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. EiE lessons not only promote K-12 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies. Three pilot sites in Virginia needed for 2012.

### **EDC Center for Science Education** (<http://cse.edc.org/curriculum/exploreit/>) \$

Working with funders, foundations, and corporations, EDC identifies needs in the science education community and responds with programs and initiatives. Through this work, they develop resources and publications, provide customized services and support, and conduct comprehensive research and evaluation studies covering topics such as assessment, curriculum implementation, leadership, literacy, and that cover all grade levels—early childhood through high school.

### **Current Research:**

The Tufts Study: Waves of the Future: *The first five years of the 4-H study of positive youth development* (Lerner et.al, 2009) shows the effects of 4-H participation and can be used as a backdrop for 4-H as a complementary out-of-school time learning option for formal education. It can be found at: <http://4-h.org/about/research/html>

### **Professional Development Curriculum for Peers, Volunteers, and Other Educators:**



### **Essential Elements** (<http://4-h.org/resources/staff/essentialelements.html>)

This peer-reviewed training curriculum helps youth workers and leaders understand each of the eight elements and how to incorporate them in on-going 4-H programs. The training curriculum consists of 10 modules. Each module can be taught as a stand-alone session of one hour or combined together for a 10-12 hour course.

## **Online Learning Modules**

### **Experiential Learning**

The three interactive online learning modules are being developed to provide the basics for volunteers and staff to increase their knowledge and skills to target learning outcomes; provide reflection on that learning and integrate application into all activities. They can be stand alone or taken in sequence. They would make great mini-lessons for experts who will be working with your groups who might not be familiar /comfortable in working with youth.

## Learning by Doing

Maximize your learning opportunities for youth in just 15 minutes. This animated video with pre- and post-assessment helps you identify targeted outcomes for young people and keep the focus on what you want participants to achieve.

[View the "Learning by Doing" Module](#)

## Reflecting on Learning – A Question of Curiosity

Improve your ability to help youth reflect on their learning, whether it is science, health or any other topic. This online lesson will help you ask the right questions to deepen the learning.

[View the "Reflecting on Learning - A Question of Curiosity" Module](#)

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# Programming

# ANIMAL SCIENCES

The 4-H Animal Science programs provide a wide variety and depth of educational opportunities for youth, most of which involve working directly with live animals of all types.

These projects teach:

- Responsible care and well-being of animals.
- Life Skills like decision-making and communication skills through judging events and oral presentations.
- Awareness of the practices in Animal Agriculture.
- The safe and appropriate use of animal products.
- Scientific principles.

The 4-H Animal Science Programs allow the youth to practice and demonstrate what they learn at numerous supporting activities like fairs, judging contests, shows, and educational bowls and presentation contests.

These programs also help youth become aware of career opportunities in the animal agricultural industries which represents 70% of the total income from agriculture in Virginia

([http://www.nass.usda.gov/Statistics\\_by\\_State/Ag\\_Overview/AgOverview\\_VA.pdf](http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_VA.pdf))

Virginia's animal agriculture industries strongly support these program areas. Livestock and their products generated \$2.04 billion of income in 2007.

Take a closer look at the many opportunities waiting for you in the 4-H Animal Science Programs. For additional information, contact: Paige Johnson Pratt, Extension Animal Science Youth Specialist; Phone: 540-231-4732; Email: [pjpratt@vt.edu](mailto:pjpratt@vt.edu)

# Project Books/Guides

Virginia Cooperative Extension  
PUBLISHED 2004 PUBLICATION 80-833

**4-H Market Beef Planning Guide**  
Mark Maloney

This Planning Guide gives you the information you need to estimate the finished weight of a feeder calf, whether it is a steer or heifer. From additional information you provide, a required daily gain is calculated, and a planned feeding program can be developed to reach the proper finished weight at the time of your show.

**I. Number of Days to Feed**  
Date of Your Show \_\_\_\_\_  
Date of Starting Weight of Calf \_\_\_\_\_  
Number of Days Calf is on Feed \_\_\_\_\_

**II. Estimating Finished Weight**  
Frame Score is a determination of a calf's height in relation to its age. It is closely associated with mature size. Young calves that are quite tall with mature as a late sign and a larger size than those calves that are not so tall. You determine Frame Score in this way:  
A. Measure the height of the calf in inches over the hip. Because the way the calf stands can affect this measurement, make sure he is standing with his front legs on the corners of the body, the hind legs are in a normal position, and the back is evenly level. See the illustration.

**Hip Height Measurement**

Virginia 4-H Horse Project  
PUBLICATION 406-097

## 4-H Market Beef Planning Guide (400-833)

Grades: 9-12

Available online at: <http://pubs.ext.vt.edu/400/400-833/400-833.pdf>

The *4-H Market Beef Planning Guide* gives youth information needed to estimate the finished weight of a feeder calf, whether it is a steer or heifer. From additional information provided, a required daily gain is calculated, and a planned feeding program can be developed to reach the proper finished weight at the time of show.

SOLs: : BIO.1a, b, e

Virginia Cooperative Extension  
PUBLISHED 2002

**Virginia 4-H Horse Project**  
PUBLICATION 406-097

**Progressive Riding Series Unit 2 Novice**

**Directions:**  
This project is to be used in the three management program and will be revised and updated as needed. Directions for the riding program should be obtained from the Virginia 4-H Horse Project. The riding program should be obtained from the Virginia 4-H Horse Project. The riding program should be obtained from the Virginia 4-H Horse Project. The riding program should be obtained from the Virginia 4-H Horse Project.

All books should check all of the materials available and enter program information. Programs can be adjusted to local needs and conditions. The goal is to make the program as useful as possible. The goal is to make the program as useful as possible. The goal is to make the program as useful as possible. The goal is to make the program as useful as possible.

Members may complete each unit as many times as desirable and my progress according to their interests and abilities.

Members may complete the book when you complete the service project.

Name \_\_\_\_\_ Age \_\_\_\_\_ Club Year \_\_\_\_\_  
Address \_\_\_\_\_  
County Or City \_\_\_\_\_  
Name Of Club \_\_\_\_\_  
Name Of Leader \_\_\_\_\_ Years In 4-H \_\_\_\_\_  
Date Project Began \_\_\_\_\_ Ended \_\_\_\_\_

Virginia 4-H Horse Project  
PUBLICATION 406-097

## Virginia 4-H Horse Project: Progressive Riding Series Unit 2--Novice (406-097)

Grades: 5-12

Available online at: <http://pubs.ext.vt.edu/406/406-097/406-097.pdf>

*Virginia 4-H Horse Project: Progressive Riding Series Unit 2--Novice* is a riding project book where youth log their riding time, demonstrate certain equine knowledge, such as, labeling the parts of the horse, listing causes and effects of certain symptoms, and identifying breed characteristics. Youth will also exhibit dismounted and mounted abilities. Members may complete each unit as many times as desirable and my progress according to their interests and abilities.

SOLs: 5.5d,LS.5c

Virginia Cooperative Extension  
PUBLISHED 2004

**Dairy**  
PUBLICATION 404-280

**How to Make an Adjustable Rope Halter and Tie Useful Knots**  
Dennis A. Korman

**The Rope Halter**  
Rope halters are needed on all dairy farms. They are practical, adjustable, and inexpensive. By following the instructions and illustrations, you can make a rope halter easily.

You'll need about 13 feet of a three-strand rope to make an adjustable halter for a cow or heifer. Use 3/8-inch rope for calves and small heifers and 7/16-inch or 1/2-inch rope for large heifers and cows.

**The Noggins Loop**  
The noggins loop should look like this.

3. Unfold the unknotted end over the first finger of your left hand about 4 inches past the knotted part. This should give you a loop slightly larger than the diameter of the rope. Move both the unknotted end and loop down to your right as shown in the picture.

Virginia 4-H Horse Project  
PUBLICATION 406-097

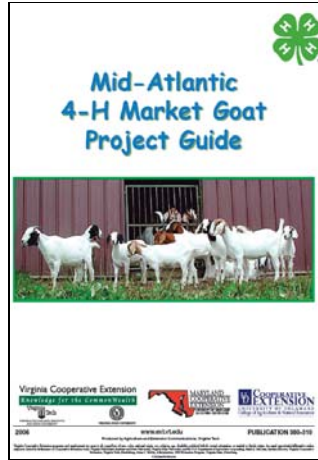
## How to Make an Adjustable Rope Halter and Tie Useful Knots (404-280)

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/404/404-280/404-280.pdf>

*How to Make an Adjustable Rope Halter and Tie Useful Knots* is an eight page guide to making everyday knots out of rope. The guide uses 13 feet of a three-strand rope to make an adjustable halter for a cow or heifer, and uses 3/8-inch in diameter rope for calves and small heifers and 7/16-inch or 1/2 -inch rope for large heifers and cows.

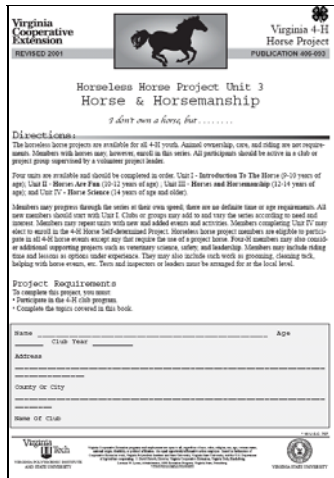
SOLs: Science 5.1b,d, 6.1c, Math 4.11a, 5.11a



**Mid-Atlantic 4-H Market Goat Project Guide (380-310)**

Grades: 9-12

Available online at: <http://pubs.ext.vt.edu/380/380-310/380-310.pdf>  
 Market, or meat, goats make ideal 4-H project animals for many reasons. Generally, the purchase price of goats is small and the facilities needed to maintain goats are minimal. Goats are not that large and can be handled by 4-H'ers of all ages, even if they do not have a great deal of previous livestock experience. The market goat project will help youth gain knowledge of the livestock industry in general and the meat goat industry in particular. By participating in the market goat project youth will learn responsibility, money management, record keeping, livestock selection and handling.  
 SOLs: BIO.1a



**Virginia 4-H Horse Project: Horseless Horse Project Unit 3—Horse & Horsemanship (406-093)**

Grades: 7-8


Available online at: <http://pubs.ext.vt.edu/406/406-093/406-093.pdf>  
 This project book is a short-term project open to 4-H members ages 12-14, with or without horses. It is the third book of a four unit series. It is suitable for large groups and school clubs. *Horses and Horsemanship* builds upon knowledge and experience gained from prior units, and encourages additional supporting projects such as veterinary science, safety, and leadership. After completing this project book, youth are encouraged to complete unit four—Horse Science.  
 SOLs: LS.4b, LS.5c



**Virginia 4-H Horse Project: Horseless Horse Project Unit 4—Horse Science (406-094)**

Grades: 9-12

Available online at: <http://pubs.ext.vt.edu/406/406-094/406-094.pdf>  
 This project book is a short-term project open to 4-H members ages 14 and older, with or without horses. It is the fourth book of a four unit series. It is suitable for large groups and school clubs. *Horse Science* builds upon knowledge and experience gained from prior units, and encourages additional supporting projects such as veterinary science, safety, and leadership.  
 SOLs: BIO.1a, English 9.6a, e,10.4b, 10.10a, 10.11a,e,f, 12.7a,b



Virginia Cooperative Extension  
REVERSED 2007 PUBLICATION 406-098

### Virginia 4-H Horse Project: Progressive Riding Series Unit 3-- Horseman

The Progressive Riding Series

**Directions:**  
Members should also enroll in the Horse Management project and keep an accurate and up-to-date management record. Participation in the riding series is strictly an on-site basis. The riding project should be closely supervised by a horse project leader. Responses should be used for completing the diagrams, questions, etc. Members should have the basic equipment for riding and the use of a suitable riding arena.

All leaders should obtain all of the materials available and review project representation. Progress may be shown to local youth and used under the direct supervision of Extension Agents and Leaders. Age requirements for completing the riding units are as follows: Novice - 10 years or older; Horseman - 17 years or older; Horsemaster - 18 years or older. Responses should be signed by members and top youth 4-H members capable of professional conduct and employment in the industry.

Activities may include but are not limited to: an arena ride as directed and may progress according to their interests and abilities. May will not advance beyond the first or second level, and then should be an equal distribution between levels as far as possible development is concerned. The goal is to make Horseman out of all who are interested in horses. Responses may continue or be taken, upon the spot, or design work horse projects.

Members may complete some tests on horse other than their own or assigned project. Most projects should be on a project plan basis, but progress should be monitored by leaders for this. The project will require inspection for certain tests. The selection and implementation of this should be arranged at the local level and/or county level. Leaders use available the appropriate procedures and approvals for responses of these tests. Tests are not competitive, and many tests can be replaced by alternate tests designed by leaders according to local needs and interests.

Name \_\_\_\_\_ Age \_\_\_\_\_ Club Year \_\_\_\_\_  
 Address \_\_\_\_\_  
 County or City \_\_\_\_\_  
 Name of Club \_\_\_\_\_  
 Name of Leader \_\_\_\_\_ Years in 4-H \_\_\_\_\_  
 Date Project Began \_\_\_\_\_ Ended \_\_\_\_\_

Virginia Tech  
REVERSED 2007 PUBLICATION 406-098  
Virginia Cooperative Extension


### Virginia 4-H Horse Project: Progressive Riding Series Unit 3-- Horseman (406-098)

Grades: 7-12

Available online at: <http://pubs.ext.vt.edu/406/406-098/406-098.pdf>

*Virginia 4-H Horse Project: Progressive Riding Series Unit 3-- Horseman* is a riding project book where youth log their riding time, demonstrate certain equine knowledge, such as, labeling the 12 points of unsoundness, listing the percent composition for certain feeds, and determining daily nutrient requirements. Youth will also exhibit dismounted and mounted abilities. Members may complete each unit as many times as desirable and my progress according to their interests and abilities.

SOLs: LS.4b



Virginia 4-H Horse Project: Progressive Riding Series Unit 4  
Horsemaster

Name \_\_\_\_\_ Age \_\_\_\_\_ Club Year \_\_\_\_\_  
 Address \_\_\_\_\_  
 County or City \_\_\_\_\_  
 Name of Club \_\_\_\_\_  
 Name of Leader \_\_\_\_\_ Years in 4-H \_\_\_\_\_  
 Date Project Started \_\_\_\_\_  
 Date Completed \_\_\_\_\_

REVERSED 2007 PUBLICATION 406-099  
 Virginia Tech  
Virginia Cooperative Extension

### Virginia 4-H Horse Project: Progressive Riding Series Unit 4-- Horsemaster (406-099)

Grades: 10-12

Available online at: <http://pubs.ext.vt.edu/406/406-099/406-099.pdf>

*Virginia 4-H Horse Project: Progressive Riding Series Unit 4-- Horsemaster* is a riding project book where youth log their riding time, demonstrate certain equine knowledge, such as, drawing and labeling the skeleton of the horse, reproductive tract of the mare, and the digestive system of the horse. Youth will also exhibit dismounted and mounted abilities. Members may complete each unit as many times as desirable and my progress according to their interests and abilities.

SOLs: English 10.11a

Virginia Cooperative Extension

### Horseless Horse Project Unit 2 Horses Are Fun

This project is for all 4-H club members. Drawing or writing stories to a horse to use as a souvenir, and other fun activities are included. Responses should be used for completing the diagrams, questions, etc. Members should have the basic equipment for riding and the use of a suitable riding arena.

**Activities:**  
 Draw One Tack or Dressing Item \_\_\_\_\_  
 Draw One Part of the Horse \_\_\_\_\_  
 Draw the Part of a Saddle \_\_\_\_\_  
 Draw a Horse Blank \_\_\_\_\_  
 Draw Horse Skeleton \_\_\_\_\_  
 Draw a Horse Blank \_\_\_\_\_  
 Draw a Horse \_\_\_\_\_

**Project Requirements:**  
 To complete the project, you must:  
 - participate in the 4-H program  
 - complete the reports required in this project book  
 - complete some of the following activities:

Name \_\_\_\_\_ Age \_\_\_\_\_ Club Year \_\_\_\_\_  
 Address \_\_\_\_\_  
 County or City \_\_\_\_\_  
 Name of Club \_\_\_\_\_  
 Name of Leader \_\_\_\_\_ Years in 4-H \_\_\_\_\_  
 Date Project Began \_\_\_\_\_ Ended \_\_\_\_\_

REVERSED 2007 PUBLICATION 406-105  
 Virginia Tech  
Virginia Cooperative Extension

### Virginia 4-H Horse Project: Horseless Horse Project Unit 2-- Horses are Fun (406-105)


Grades: 5-7

Available online at: <http://pubs.ext.vt.edu/406/406-105/406-105.pdf>

This project book is a short-term project open to 4-H members ages 10-12, with or without horses. It is the second book of a four unit series. It is suitable for large groups and school clubs. *Horses are Fun* teaches youth through questions and activities the parts of the horse, coat colors, markings, age determination, gaits, breeds and their characteristics, equipment, and health and safety of the horse. After completing this project book, youth are encouraged to complete unit three—Horse & Horsemanship.

SOLs: LS.4b, LS.5c

**VIRGINIA 4-H HORSE PROJECT: HORSELESS HORSE PROJECT UNIT 1—Introduction to the Horse**



NAME \_\_\_\_\_ AGE \_\_\_\_\_ CLUB YEAR \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 COUNTY OR CITY \_\_\_\_\_  
 NAME OF CLUB \_\_\_\_\_  
 NAME OF LEADER \_\_\_\_\_ YEARS IN 4-H \_\_\_\_\_  
 DATE PROJECT BEGAN \_\_\_\_\_ ENDED \_\_\_\_\_

PUBLICATION 406-101  
 Virginia Cooperative Extension  
 Knowledge for the Commonwealth

**Virginia 4-H Horse Project: Horseless Horse Project Unit 1—Introduction to the Horse (406-120)**

Grades: 4-5

Available online at: <http://pubs.ext.vt.edu/408/408-029/408-029.pdf>

This project book is a short-term project open to 4-H members ages 9-10, with or without horses. It is the first book of a four unit series. It is suitable for large groups and school clubs. This project should be completed in two to four meetings. Program and activities may be expanded according to need and interest. After completing this project book, youth are encouraged to complete unit two—Horses are Fun.

SOLs: English 3.7a,b

Virginia Cooperative Extension  
 PUBLISHED 2003



Virginia 4-H Horse Project  
 PUBLICATION 406-107

**Self-Determined Horse Project**  
 Prepared by Dr. Anne R. Ruff, Extension Specialist, Animal Science  
 Approved by Barbara Anderson, 4-H Specialist, Extension and Learning

**Introduction**

- This project is designed for senior 4-H horse project members who have the experience, resources, and ability to participate in an advanced program.
- The project should be closely and closely supervised by a leader knowledgeable in the selected field.
- Members may enroll in and complete this project as many times as they wish.
- The program may be adapted to any area, depending upon the selected field.
- Members may enroll in the same area as before.
- This project can be used as an advanced follow-up to the Horsemanship Project.

**Project Requirements**

- The book is a 4-H Extension Club or individual program.
- Design and complete an independent project using the project development criteria.
- Complete a written summary of the project addressing criteria not given in the project outline as well as life skills and science skills.
- The project may or may not include the use of a horse, but must be related to the horse.
- Read at least two publications related to the project.
- Share the learning experience gained from this project through a presentation.
- Develop a portfolio as an optional evaluation strategy.

Name \_\_\_\_\_ Age \_\_\_\_\_ Club Year \_\_\_\_\_  
 Address \_\_\_\_\_  
 County or City \_\_\_\_\_  
 Name of Club \_\_\_\_\_ Years in 4-H \_\_\_\_\_  
 Name of Leader \_\_\_\_\_ Years in 4-H Adult/Youth \_\_\_\_\_  
 Title of Project \_\_\_\_\_

Virginia Cooperative Extension  
 PUBLISHED 2003

**Virginia 4-H Horse Project: Self-Determined Horse Project (406-107)**

Grades: 9-12

Available online at: <http://pubs.ext.vt.edu/406/406-107/406-107.pdf>

This project is designed for senior 4-H horse project members who have the experience, resources, and ability to participate in an advanced program. The project may be short-term or long-term, depending upon the selected field, members may enroll in and complete this project as many times as they wish, and may or may not have access to a horse. Through this project members will complete a written summary and read at least two publications related to the project. The written summary will address criteria and questions in the project outline, as well as, life and science skills.


SOLs: BIO.1a, e, English 9.4c, 10.4b, 10.11e, 11.4e, 11.10c, 12.7a

Virginia Cooperative Extension  
 PUBLISHED 2003

4-H LIVESTOCK ADVANCEMENT PROJECT GUIDE AND RECORD  
 PUBLICATION 380-119

**Objectives of 4-H Livestock Advancement Project:**

- To help 4-H members learn more about the livestock industry.
- To receive credits for extra work.
- To allow members to advance according to ability and desire.
- To establish "self motivation," a necessary ingredient in the livestock industry.



Prepared by Vicki L. Stibbing, Extension Animal Scientist, Virginia Tech

Virginia Cooperative Extension  
 PUBLISHED 2003

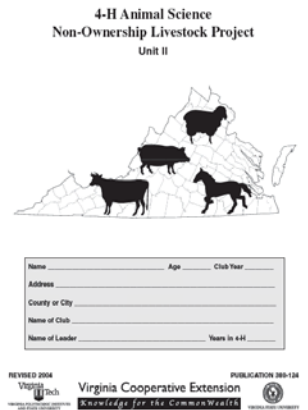
**4-H Livestock Advancement Project Guide and Record (380-119)**

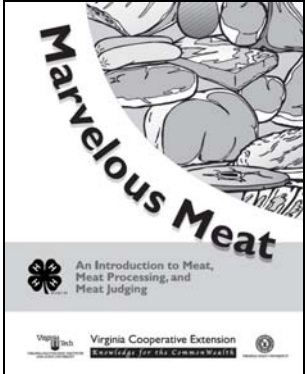
Grades: 4-12

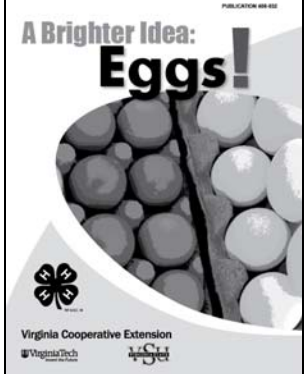
Available online at: <http://pubs.ext.vt.edu/380/380-119/380-119.pdf>


The *4-H Livestock Advancement Project Guide and Record* is a project book designed to help 4-H members learn more about the livestock industry, allow members to advance according to ability and desire, and to establish "self motivation," a necessary ingredient in the livestock industry. This is not a required project, but if it is undertaken, it will be checked and considered as part of a current livestock project for county and state awards.

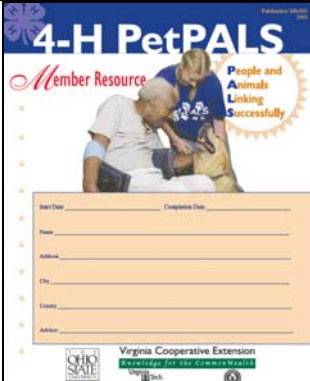
SOLs: LS.4b, LS.5c

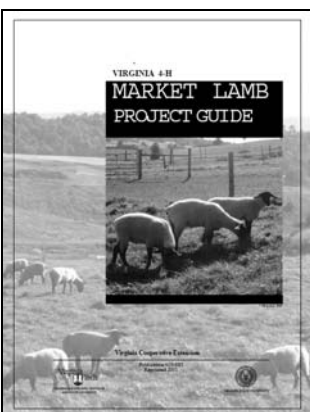
	<p><b>4-H Animal Science Non-Ownership Livestock Project Unit II (380-124)</b></p> <p>Grades: 6-9</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-124/380-124.pdf">http://pubs.ext.vt.edu/380/380-124/380-124.pdf</a></p> <p>The <i>Animal Science Project Unit II</i> is designed for youth ages 12-15, and is intended to be used on an individual basis or in 4-H clubs that are interested in livestock but do not or cannot have animals of their own. In this project book, there are short-term projects, which may be followed by other livestock and meats projects or by the Junior Stockman's Project. This project book can be used in school clubs, community clubs, special project clubs, or on an individual basis.</p> <p>SOLs: LS.5c, English 9.2b</p>
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	<p><b>Marvelous Meat: An Introduction to Meat, Meat Processing, and Meat Judging (388-746)</b></p> <p>Grades: 6-8</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-746/388-746.pdf">http://pubs.ext.vt.edu/388/388-746/388-746.pdf</a></p> <p>This activity guide centers on meat identification, learning to be an informed meat consumer, and meat judging. The guide has been written for youth ages 11 to 14 (grades 6 through 8). However, it may be used by youth at any grade-level based on their knowledge of meat and meat production. The activities in this book will strengthen their understanding of meat products and production and provide an introduction to judging. It is an excellent resource for urban youth.</p> <p>SOLs: Science 6.1, 6.9, Life Science 3,4,5,6,7,9,12,14 Health 6.2, 7.8</p>
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	<p><b>A Brighter Idea: Eggs! (408-032)</b></p> <p>Grades: 4-6</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/408/408-032/408-032.pdf">http://pubs.ext.vt.edu/408/408-032/408-032.pdf</a></p> <p><i>A Brighter Idea: Eggs!</i> is designed to provide a better understanding and use of the Incredible Edible Egg. Not only are eggs nutritious, but they're still one of today's best food buys. This booklet cover information about egg processing, the internal anatomy of the egg, egg color, egg nutrition, cholesterol, egg quality, egg size, and egg safety.</p> <p>SOLs: English 4.1, 5.1, 5.2, 6.1</p>
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 <p>Let's have a Chick-N-Que! It's fun; it's easy; it's good eating; and it's so very economical.</p> <p>Virginia Cooperative Extension Virginia Tech VSU</p>	<p><b>Chick-N-Que (408-287)</b></p>
	<p>Grades: 8-12 and Leaders</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/408/408-287/408-287.pdf">http://pubs.ext.vt.edu/408/408-287/408-287.pdf</a></p>
	<p>A Chick-N-Que is fun for all ages. It turns an ordinary picnic into a feast. Plump, tender-meated broiler chickens become delicious birds dripping with heavenly flavors. This guide explains the equipment and fuel and fire needed to build a proper Chick-N-Que pit, as well as, shows the proper procedures for selecting, preparing, and cooking chicken. At the end of the guide there are recipes for Chick-N-Ques sauces.</p>
<p>SOLs: English 10.4b</p>	

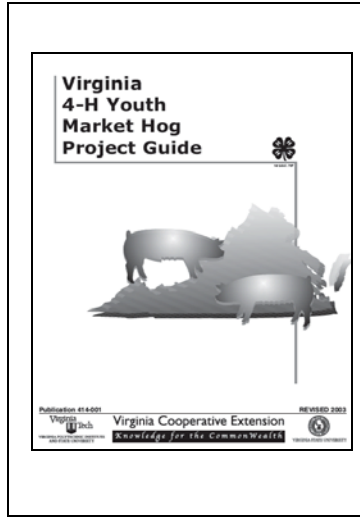
 <p>4-H PetPALS Member Resource People and Animals Linking Successfully</p> <p>Start Date _____ Completing Date _____ Name _____ Address _____ City _____ County _____ Address _____</p> <p>Virginia Cooperative Extension Knowledge for the Commonwealth Virginia Tech VSAE</p>	<p><b>4-H PetPALS Member Resource (380-005)</b></p>
	<p>Grades: 4-12</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-006/380-005.pdf">http://pubs.ext.vt.edu/380/380-006/380-005.pdf</a></p>
	<p>This required member resource helps 4-H members set goals for the year and keep records of their PetPALS activities and accomplishments. Youth must belong to a 4-H club or group with a trained master 4-H PetPALS volunteer leader. This resource cannot stand alone as a 4-H project.</p>
<p>SOLs:</p>	

 <p>VIRGINIA 4-H MARKET LAMB PROJECT GUIDE</p> <p>Virginia Cooperative Extension</p>	<p><b>Virginia 4-H Market Lamb Project Guide (410-083)</b></p>
	<p>Grades: 9-12</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/410/410-083/410-083.pdf">http://pubs.ext.vt.edu/410/410-083/410-083.pdf</a></p>
	<p>4-H'ers participating in this project will learn the responsibilities associated with the day-to-day care of lambs and will gain a better understanding of the management practices that go along with lamb production. This project book will deal mainly with finishing lambs on a complete concentration ration whereby the lambs are kept in a small lot and are not using grass as a form of feed. The records for this project should be kept in a separate Livestock Record Book or Advanced Livestock Record Book. This guide is only a source of instructions for conduction the 4-H Market Lamb Project.</p>
<p>SOLs: BIO 1a</p>	





<b>Virginia 4-H Ewe Flock Project Guide (410-089)</b>
Grades: 9-12
Available online at: <a href="http://pubs.ext.vt.edu/410/410-089/410-089.pdf">http://pubs.ext.vt.edu/410/410-089/410-089.pdf</a>
The ewe flock project is designed to meet the needs and goals of the 4-H member in developing characteristics of responsibility and sound decision-making. The project is also designed to acquaint 4-H members with the selection of feeding, breeding, and general care and management of a sheep flock for the production of lambs and wool, and give the 4-Her the basic knowledge needed to begin and maintain a small ewe flock.
SOLs: BIO 1a



<b>Virginia 4-H Youth Market Hog Project Guide (414-001)</b>
Grades: 9-12
Available online at: <a href="http://pubs.ext.vt.edu/414/414-001/414-001.pdf">http://pubs.ext.vt.edu/414/414-001/414-001.pdf</a>
Through the <i>Virginia 4-H Youth Market Hog Project Guide</i> youth will: develop knowledge and skill in swine selection, production, and marketing; learn to employ proper swine feeding, management and welfare practices; learn about important market hog production and carcass traits, cuts of pork, and pork nutritional value as a human food product; gain understanding of the business aspects of a swine project, including expenses, revenues, and the potential for profits or losses; learn the importance of keeping swine production and financial records by using the appropriate 4-H Livestock Record Book; and develop a sense of responsibility and confidence in one's ability to initiate and complete a project.
SOLs: BIO 1a, 1d

## Project Record Books



<b>Virginia 4-H Market Beef Project Junior Record Book</b>
Grades: 4-8
Available online at:
The <i>Virginia 4-H Market Beef Project Junior Record Book</i> is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in market beef. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.

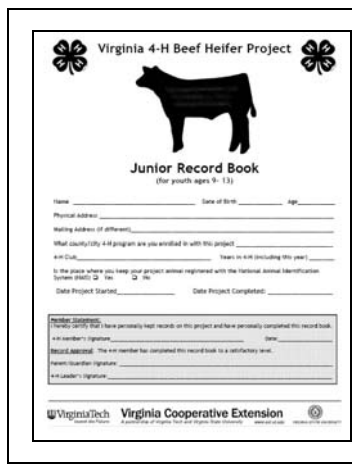


**Virginia 4-H Market Beef Project Senior Record Book**

Grades: 9-12

Available online at:

The *Virginia 4-H Market Beef Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in market beef and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Beef Heifer Project Junior Record Book**

Grades: 4-8

Available online at:

The *Virginia 4-H Beef Heifer Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in beef heifers. In this record book, members are required to plan their project, calculate monthly feed costs, provide pedigree information, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.




**Virginia 4-H Beef Heifer Project Senior Record Book**

Grades: 9-12

Available online at:

The *Virginia 4-H Beef Heifer Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in beef heifers and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, provide pedigree information, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.

 <p>The image shows the cover of the Virginia 4-H Dairy Project Junior Record Book. It features a central illustration of a black and white cow. Above the cow, it says 'Virginia 4-H Dairy Project' and 'Junior Record Book (for youth ages 9-13)'. Below the cow, there are several lines for personal information: Name, Date of Birth, Age, Physical Address, Mailing Address (if different), What county/city 4-H program are you enrolled in with this project?, 4-H Club, Years in 4-H (including this year), In the state where you keep your project animal registered with the National Animal Identification System (NAIS), Date Project Started, and Date Project Completed. There are also signature lines for the 4-H member, 4-H leader, and a witness. At the bottom, it says 'VirginiaTech Virginia Cooperative Extension'.</p>	<p><b>Virginia 4-H Dairy Project Junior Record Book</b></p> <p>Grades: 4-8</p> <p>Available online at:</p> <p>The <i>Virginia 4-H Dairy Project Junior Record Book</i> is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in dairy cattle. In this record book, members are required to plan their project, calculate monthly feed costs, provide pedigree and growth information, and record feed tag information. Youth are also required to keep a record of care, lactation, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.</p>
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	<b>Virginia 4-H Dairy Project Senior Record Book</b>
	<b>Grades: 9-12</b>
	<b>Available online at:</b> <p>The <i>Virginia 4-H Dairy Project Senior Record Book</i> is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in dairy cattle and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, provide pedigree and growth information, and record feed tag information. Youth are also required to keep a record of care, lactation, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.</p>

	<b>Virginia 4-H Dairy Goat Project Junior Record Book</b>
	<b>Grades: 4-8</b>
	<b>Available online at:</b> <p>The <i>Virginia 4-H Dairy Goat Project Junior Record Book</i> is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in dairy goats. In this record book, members are required to plan their project, calculate monthly feed costs, provide pedigree and growth information, and record feed tag information. Youth are also required to keep a record of care, lactation, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.</p>

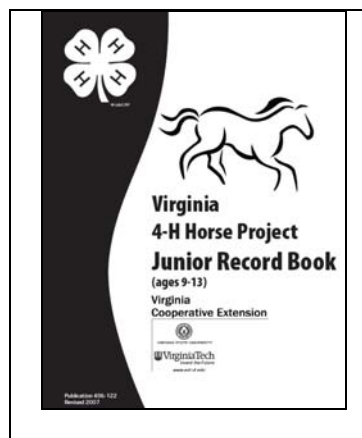
	<b>Virginia 4-H Dairy Goat Project Senior Record Book</b>
	<b>Grades: 9-12</b>
	<b>Available online at:</b> <p>The <i>Virginia 4-H Dairy Goat Project Senior Record Book</i> is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in dairy goats and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, provide pedigree and growth information, and record feed tag information. Youth are also required to keep a record of care, lactation, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.</p>



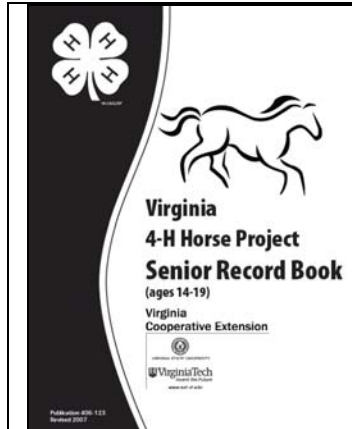
**Virginia 4-H Market Goat Project Junior Record Book**  
 Grades: 4-8  
 Available online at:  
 The *Virginia 4-H Market Goat Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in market goats. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Market Goat Project Senior Record Book**  
 Grades: 9-12  
 Available online at:  
 The *Virginia 4-H Market Goat Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in market goats and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Horse Project Junior Record Book (406-122)**  
 Grades: 4-8  
 Available online at: <http://pubs.ext.vt.edu/406/406-122/406-122.pdf>  
 The *Virginia 4-H Horse Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in equine. In this record book members plan their project, and record information about care, management, riding, training, tack, equipment, feed costs, and health care.



**Virginia 4-H Horse Project Senior Record Book (406-123)**  
 Grades: 9-12  
 Available online at: <http://pubs.ext.vt.edu/406/406-123/406-123.pdf>  
 The *Virginia 4-H Horse Project Senior Record Book* is designed for youth ages 14-19, and is intended to be used on an individual basis or in 4-H clubs that are interested in equine. In this record book members are required to record more in-depth information about care, management, riding, training, tack, equipment, feed costs, and health care of their horse.



**Virginia 4-H Market Hog Project Junior Record Book**  
 Grades: 4-8  
 Available online at:  
 The *Virginia 4-H Market Hog Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in market hogs. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Market Hog Project Senior Record Book**  
 Grades: 9-12  
 Available online at:  
 The *Virginia 4-H Market Hog Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in market hogs and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.



### Virginia 4-H Market Lamb Project Junior Record Book

Grades: 4-8

Available online at:

The *Virginia 4-H Market Lamb Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in market lambs. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.

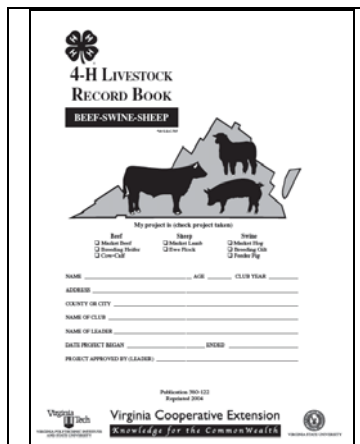


### Virginia 4-H Market Lamb Project Senior Record Book

Grades: 9-12

Available online at:

The *Virginia 4-H Market Lamb Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in market lambs and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, and income. At the end of the project youth determine if the project was a profit or loss.

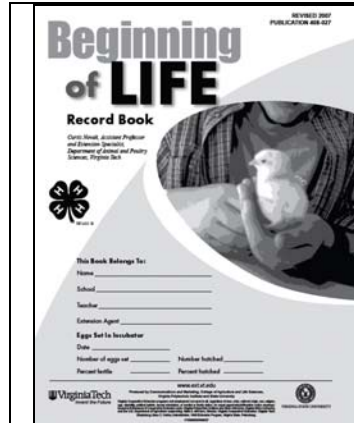


### 4-H Livestock Record Book: Beef-Swine-Sheep (380-122)

Grades: 4-7

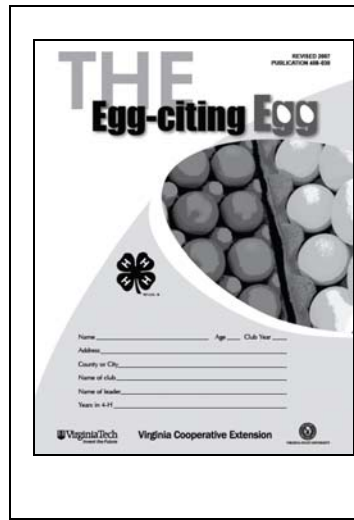
Available online at: <http://pubs.ext.vt.edu/380/380-122/380-122.pdf>

This record book is designed for youth in their first years of livestock project work. One record book should be used for each species (beef, sheep, and swine) except where conflict between breeding and market records exists, and then a second record book may be used. This project book can be used in school clubs, community clubs, special project clubs, or on an individual basis.



**Beginning of LIFE Record Book (408-027)**  
 Grades: 4-6  
 Available online at: <http://pubs.ext.vt.edu/408/408-027/408-027.pdf>  
 In the *Beginning of LIFE Record Book* youth work through questions and activities learning about the parts of the egg, an incubator and its operations, take daily thermometer readings, monitor individual egg progress, and learn when the most important stages of development occur.

SOLs: Science 4.1, 4.4, 4.8, 5.1, 5.5, 6.1, 6.2, 6.8, LS.1, LS.2, LS.3, LS.4, LS.7, LS.8  
 Math 4.2, 4.4, 4.8, 4.11, 4.12, 4.13, 4.19, 5.3, 5.7, 5.9, 5.10, 5.11, 5.12, 5.17, 5.18, 6.9, 6.10, 6.18, 6.19  
 English 4.1, 4.2, 4.5, 4.9, 5.1, 5.2, 5.3, 5.7, 5.8, 6.1, 6.8, 6.9  
 CT 5.4



**The Egg-Citing Egg Record Book (408-030)**  
 Grades: 3-6  
 Available online at: <http://pubs.ext.vt.edu/408/408-030/408-030.pdf>  
*The Egg-Citing Egg Record Book* is a 4-H project designed to acquaint youth with the avian egg, its parts, and how they relate to human nutrition. Youth will identify the meaning of common sayings and explain how these sayings relate to poultry, connect a store-bought product to how that product is delivered to the market, identify vocabulary related to the study of eggs, demonstrate “egg knowledge” through open-ended questions, connect the concept of form and function, and use observation and experimentation to study eggs. This publication is designed to be used in conjunction with *The Egg-Citing Egg Teacher/Leader Guide*.


SOLs: English 3.2, 3.10, 4.1, 4.2, 5.1, 5.2, 5.3, 5.8, 6.1, 6.6  
 Science 5.1, 6.1



**Poultry Yearly Plan and Record Book (408-042)**  
 Grades: 4-12  
 Available online at: <http://pubs.ext.vt.edu/408/408-042/408-042.pdf>  
*Poultry Yearly Plan and Record Book* is used when completing the following projects: Raising and Rearing Poultry, Poultry and Egg Consumer Projects, and Beginning of Life. This record book first asks youth to set goal for their project, and then provides space for youth to record project activities, financial records, management records, and a summary of the yearly poultry project.




**Virginia 4-H Poultry Project**



**Junior Record Book**  
(for youth ages 9-13)

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Age \_\_\_\_\_  
 Physical Address \_\_\_\_\_  
 Mailing Address (if different) \_\_\_\_\_  
 What county/city 4-H program are you enrolled in with this project \_\_\_\_\_  
 4-H Club \_\_\_\_\_ Years in 4-H (including this year) \_\_\_\_\_  
 Is the place where you keep your project animal registered with the National Animal Identification System (NAIS)?  Yes  No  
 Date Project Started: \_\_\_\_\_ Date Project Completed: \_\_\_\_\_

**Member Signature:**  
 I hereby certify that I have personally kept records on this project and have personally completed this record book.  
 4-H member's signature \_\_\_\_\_ Date \_\_\_\_\_  
**RECORDER APPROVED:** The 4-H member has completed this record book to a satisfactory level.  
 Parent/Guardian Signature \_\_\_\_\_  
 4-H Leader's Signature \_\_\_\_\_

 **Virginia Cooperative Extension**  
 A partnership of Virginia Tech and Virginia State University


**Virginia 4-H Poultry Project Junior Record Book**

Grades: 4-8

Available online at:

The *Virginia 4-H Poultry Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in poultry. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of the laying, breeding, and market bird flock; care; management; equipment; supplies; feed; other expenses; income; and flock production. At the end of the project youth determine if the project was a profit or loss.


**Virginia 4-H Poultry Project**



**Senior Record Book**  
(for youth ages 13-19)

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Age \_\_\_\_\_  
 Physical Address \_\_\_\_\_  
 Mailing Address (if different) \_\_\_\_\_  
 What county/city 4-H program are you enrolled in with this project \_\_\_\_\_  
 4-H Club \_\_\_\_\_ Years in 4-H (including this year) \_\_\_\_\_  
 Is the place where you keep your project animal registered with the National Animal Identification System (NAIS)?  Yes  No  
 Date Project Started: \_\_\_\_\_ Date Project Completed: \_\_\_\_\_

**Member Signature:**  
 I hereby certify that I have personally kept records on this project and have personally completed this record book.  
 4-H member's signature \_\_\_\_\_ Date \_\_\_\_\_  
**RECORDER APPROVED:** The 4-H member has completed this record book to a satisfactory level.  
 Parent/Guardian Signature \_\_\_\_\_  
 4-H Leader's Signature \_\_\_\_\_

 **Virginia Cooperative Extension**  
 A partnership of Virginia Tech and Virginia State University


**Virginia 4-H Poultry Project Senior Record Book**

Grades: 9-12

Available online at:

The *Virginia 4-H Poultry Project Senior Record Book* is designed for youth ages 13-19, and is intended to be used on an individual basis or in 4-H clubs that are interested in poultry and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of the laying, breeding, and market bird flock; care; management; equipment; supplies; feed; other expenses; income; and flock production. At the end of the project youth determine if the project was a profit or loss.

**Virginia 4-H Rabbit Project**



**Junior Record Book**  
(for youth ages 9-13)

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Age \_\_\_\_\_  
 Physical Address \_\_\_\_\_  
 Mailing Address (if different) \_\_\_\_\_  
 What county/city 4-H program are you enrolled in with this project \_\_\_\_\_  
 4-H Club \_\_\_\_\_ Years in 4-H (including this year) \_\_\_\_\_  
 Date Project Started: \_\_\_\_\_ Date Project Completed: \_\_\_\_\_

**Member Signature:**  
 I hereby certify that I have personally kept records on this project and have personally completed this record book.  
 4-H member's signature \_\_\_\_\_ Date \_\_\_\_\_  
**RECORDER APPROVED:** The 4-H member has completed this record book to a satisfactory level.  
 Parent/Guardian Signature \_\_\_\_\_  
 4-H Leader's Signature \_\_\_\_\_

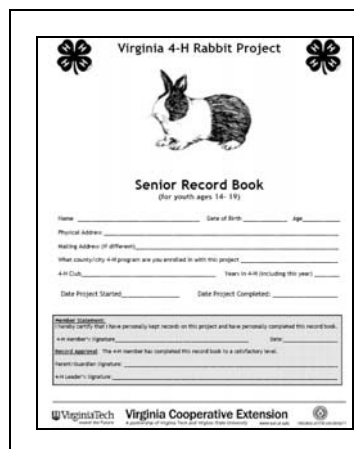
 **Virginia Cooperative Extension**  
 A partnership of Virginia Tech and Virginia State University

**Virginia 4-H Rabbit Project Junior Record Book**

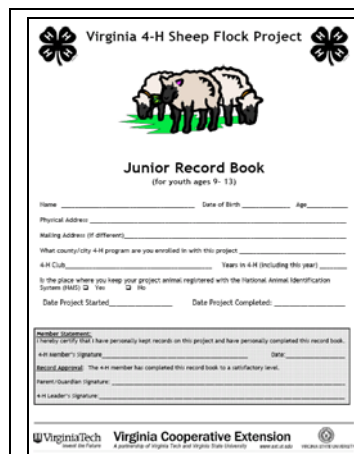
Grades: 4-8

Available online at:

The *Virginia 4-H Rabbit Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in rabbits. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, income, and breeding and litter information. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Rabbit Project Senior Record Book**  
 Grades: 9-12  
 Available online at:  
 The *Virginia 4-H Rabbit Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in rabbits and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, income, and breeding and litter information. At the end of the project youth determine if the project was a profit or loss.



**Virginia 4-H Sheep Flock Project Junior Record Book**  
 Grades: 4-8  
 Available online at:  
 The *Virginia 4-H Sheep flock Project Junior Record Book* is designed for youth ages 9-13, and is intended to be used on an individual basis or in 4-H clubs that are interested in sheep flocks. In this record book, members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, income, and flock production and performance information. At the end of the project youth determine if the project was a profit or loss.



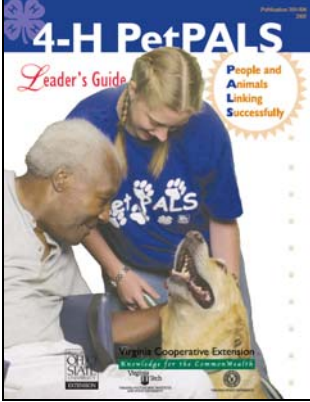
**Virginia 4-H Sheep Flock Project Senior Record Book**  
 Grades: 9-12  
 Available online at:  
 The *Virginia 4-H Sheep Flock Project Senior Record Book* is designed for youth ages 14-19. It is intended to be used on an individual basis or in 4-H clubs that are interested in sheep flocks and build on the principals learned in the Junior level record book. Members are required to plan their project, calculate monthly feed costs, and record feed tag information. Youth are also required to keep a record of care, management, equipment, supplies, feed, other expenses, income, and flock production and performance information. At the end of the project youth determine if the project was a profit or loss.

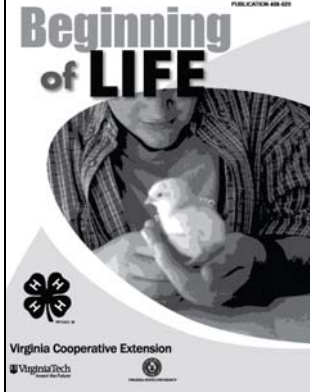
# Leaders Material

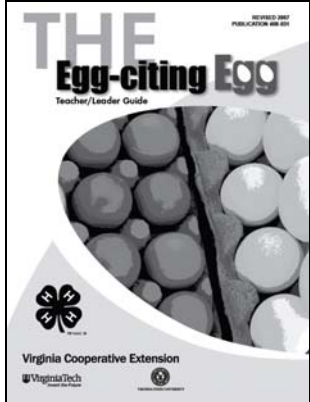
	<p><b>Survival Guide for 4-H Horse Leaders (406-130)</b></p> <p>Grades: Leader's Guide</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/406/406-130/406-130.pdf">http://pubs.ext.vt.edu/406/406-130/406-130.pdf</a></p> <p><i>Survival Guide for 4-H Horse Leaders</i> introduces new horse leaders to the basics of 4-H; the Virginia 4-H Horse Program; horse projects available through 4-H; regional, statewide, and national 4-H events; horse show procedures; 4-H policies and guidelines; and risk management resources.</p>
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<p>4-H Horse Program Leader's Guide</p>	<p><b>Virginia 4-H Horse Program Leader's Guide (406-741)</b></p> <p>Grades: Leader's Guide</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/406/406-741/406-741.pdf">http://pubs.ext.vt.edu/406/406-741/406-741.pdf</a></p> <p><i>Virginia 4-H Horse Program Leader's Guide</i> reviews the objectives of the 4-H Program, depicts the responsibilities of the club leader, gives general information about 4-H projects and 4-H Horse specific projects, information about getting a project started, and program development,</p>
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	<p><b>A Basic Training Guide for New 4-H Parents and Volunteers Involved with Livestock Projects (380-120)</b></p> <p>Grades: Leader's Guide</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-120/380-120.pdf">http://pubs.ext.vt.edu/380/380-120/380-120.pdf</a></p> <p><i>A Basic Training Guide for New 4-H Parents and Volunteers Involved with Livestock Projects</i> introduces parents and volunteers to the 4-H philosophy, developmental characteristics and programming implications of youth, the sequential 4-H curricula system, experiential education, how people learn, cone of experience, basic human needs, and incorporation of life skills in 4-H livestock projects.</p>
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	<b>4-H PetPALS Leader's Guide (380-006)</b>
	<b>Grades: Leader's Guide</b>
	<b>Available online at: <a href="http://pubs.ext.vt.edu/380/380-006/380-006.pdf">http://pubs.ext.vt.edu/380/380-006/380-006.pdf</a></b>
	<p>4-H PetPALS is an intergenerational program that links youth and their pets with senior adults. Specially-trained master 4-H volunteer leaders teach youth the skills they need to interact with residents in health care facilities such as assisted living and nursing home facilities. By applying the power of the human-animal bond, 4-H members learn to select, socialize, and train their pets. Youth apply the lessons in this 214-page, experientially-based curriculum to develop their leadership and citizenship skills. 4-H PetPALS allows young people to be models for residents in health care facilities and the community at large as they demonstrate the significance of human-animal interactions and the importance of inter generational relationships.</p>

	<b>Beginning of LIFE (408-029)</b>
	<b>Grades: Leader's Guide</b>
	<b>Available online at: <a href="http://pubs.ext.vt.edu/408/408-029/408-029.pdf">http://pubs.ext.vt.edu/408/408-029/408-029.pdf</a></b>
	<p><i>Beginning of LIFE</i> is a reference for leaders and teachers of the 4-H school-enrichment project entitled <i>Beginning of LIFE</i>. It is designed to help youth obtain a better understanding of life and embryonic development. This publication will help teachers, project leaders, and individuals doing an independent study become more familiar with the details of embryonic development.</p>
<p>SOLs: Science 3.1, 3.8, 4.1, 4.4, 4.5, 5.1, 5.5, 6.1  English 3.2, 4.2, 5.1, 5.3, 5.7, 5.8, 6.1  Math 3.1, 3.8, 3.15, 3.16, 3.17, 4.1, 4.5, 4.11, 4.12, 4.19, 5.1, 5.3, 5.11, 5.12, 6.1, 6.9, 6.10  Visual Arts K16, 1.5, 1.9  History/Social Science 2.1</p>	

	<b>The Egg-Citing Egg Teacher/Leader Guide (408-031)</b>
	<b>Grades: 4-6</b>
	<b>Available online at: <a href="http://pubs.ext.vt.edu/408/408-031/408-031.pdf">http://pubs.ext.vt.edu/408/408-031/408-031.pdf</a></b>
	<p><i>The Egg-citing Egg</i> 4-H project is designed to acquaint youth with the avian egg, its parts, and how they relate to human nutrition. Commercial egg production and marketing are also discussed. Not only are eggs one of nature's most nutritious food, they can become a classroom teaching resource. This publication is designed to be used in conjunction with <i>The Egg-citing Egg Record Book</i> for 4-H'ers.</p>

# School Enrichment

	<p><b>Virginia 4-H School Enrichment: Poultry (388-801)</b></p> <p>Grades: 4-6</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-801/388-801.pdf">http://pubs.ext.vt.edu/388/388-801/388-801.pdf</a></p> <p>The bird is an excellent educational subject for the study of embryology. First, unlike most animals, the embryonic development of birds takes place within the egg and outside of the body of the female. Second, the egg is small and readily available. Third, the incubation period is short enough to maintain the interest of even the youngest student. The school enrichment curriculum is designed to help students obtain a better understanding of life and embryonic development. This publication will also help teachers, project leaders, or individuals doing an independent study become more familiar with the details of embryonic development.</p>
	<p>SOLs: Science 4.1, 4.4, 4.8, 5.1, 5.5, 6.1, 6.2, 6.8, LS.1, LS.2, LS.3, LS.4, LS.7, LS.8</p> <p>Math 4.1, 4.4, 4.8, 4.11, 4.12, 4.13, 4.19, 5.3, 5.7, 5.9, 5.10, 5.11, 5.17, 5.18, 6.9, 6.10, 6.18, 6.19</p> <p>English 4.1, 4.2, 4.5, 4.9, 5.1, 5.2, 5.3, 5.7, 5.8, 6.1, 6.8, 6.9</p> <p>C/TS.4</p>

# Additional Resources

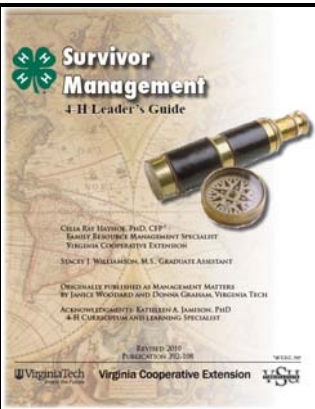
	<p><b>4-H Project Horse Eligibility/Declaration (406-125)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/406/406-125/406-125.pdf">http://pubs.ext.vt.edu/406/406-125/406-125.pdf</a></p> <p>The <i>4-H Project Horse Eligibility/Declaration</i> is a documentation form for youth to declare their 4-H Project Horse(s), in order to be eligible to exhibit their horse(s) at the District and State 4-H Horse Shows. This form must be completed annually by May 1, accurately depict the specified horse, and be signed by the local 4-H Extension agent.</p>
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# CAREERS & ECONOMIC EDUCATION

The Careers and Economic Education curriculum offers project materials related to work and development of the entrepreneurial spirit! The curriculum is divided into three major areas: Career Exploration, Consumer Education, Economic Education, and Youth Entrepreneurship.

Programs in each of these three areas are managed by the Careers and Economic Education Curriculum Committee. Youth, adult volunteer, and professional training sessions are offered annually. In addition, pilot programs, grant opportunities, and youth competitions are offered in this program area.

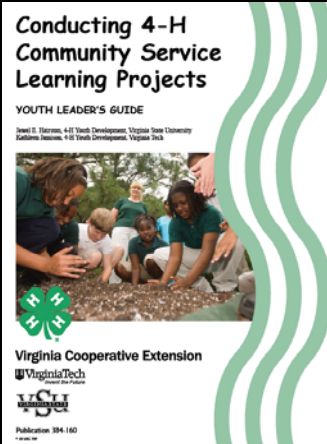
## Leaders Materials

	<p><b>Survivor Management 4-H Leader's Guide (392-108)</b></p>
	<p>Grades: 4-12</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/392/392-108/392-108.pdf">http://pubs.ext.vt.edu/392/392-108/392-108.pdf</a></p>
	<p><i>Survivor Management 4-H Leader's Guide</i> is designed as a “family resource management” project. However, the approach used throughout the lessons is the management of personal resources, dealing with goals and resources within a child’s immediate world. This project will enable youth to understand basic techniques in using management to solve problems in daily living. The following life skills are addressed throughout this program: self-responsibility, self-discipline, contribution to group effort, decision making problem solving, goal setting, and wise use of resources.</p>
	<p>SOLs: Writing 4.7, 5.8, 6.6, 7.8          Oral 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, 7.1          CE 4, Government 17          FLE 4.5, 4.6, 5.8, 6.7, 6.17, 7.15, 9.4, 10.4          EPF 4a &amp; 10c          Math 4.3, 5.1, 5.3, 6.7, 6.8, 7.4</p>

# CITIZENSHIP ·

Citizenship includes concern for the common good, respect for authority, and community mindfulness. Citizenship projects assist 4-H'ers to make connects with local, state, and federal governments and communities through education and community service learning. Service learning connects community service to education through thoughtful reflection and discussions. Citizenship also includes curriculum and international exchange programs that teaches 4-H'ers crosscultural understanding and international interdependence in our increasingly global society.


## Leaders Materials

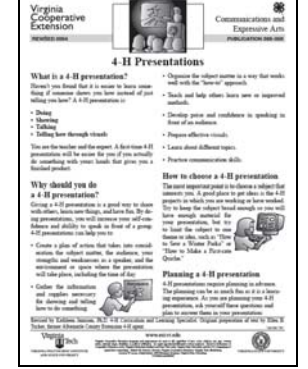
 <p><b>Conducting 4-H Community Service Learning Projects</b> YOUTH LEADER'S GUIDE</p> <p>Small text: David E. Peterson, 4-H Youth Development, Virginia State University Lashina Anderson, 4-H Youth Development, Virginia Tech</p> <p>Virginia Cooperative Extension Virginia Tech</p> <p>Publication 384-160</p>	<p><b>Conducting 4-H Community Service Learning Projects—Youth Leader's Guide (384-160)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/384/384-160/384-160.pdf">http://pubs.ext.vt.edu/384/384-160/384-160.pdf</a></p> <p><i>Conducting 4-H Community Service Learning Projects</i> is a leader's guide that bridges the gap between the community and the classroom creating service learning opportunities for young people. The guide is based upon a model created by the Points of Light Foundations and serves as the framework around which 4-H youth can learn and enjoy service learning projects. The guide is broken down into eight sections which include youth voice and planning, community need and voice, learning objectives, orientation and training, meaningful service, reflection, evaluation, celebration recognition and reporting. Community service learning is a perfect blend of organized community service and established learning goals.</p>
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# COMMUNICATIONS & EXPRESSIVE ARTS

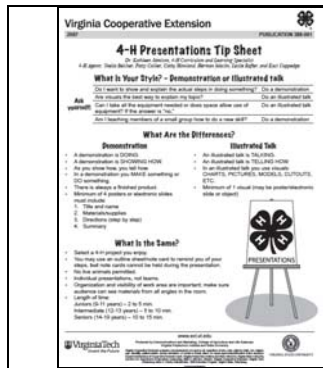
The Communication and Expressive Arts Curriculum promotes important life skills related to communication. The curriculum is divided into four major areas; Creative and Performing Arts, Photography, Public Speaking, and Presentations.

## Project Books/Guides

	<p><b>Express Yourself! Public Speaking and Presentations</b> (388-028)</p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-028/388-028.pdf">http://pubs.ext.vt.edu/388/388-028/388-028.pdf</a></p> <p>Public speaking is an important skill that is basic to good citizenship. Youths' ability to communicate effectively throughout life will be reflected at home, work, and even in the community. A speech or presentation gives youth the opportunity to share ideas and knowledge with others. <i>Express Yourself!</i> reviews a seven step process for public speaking and giving presentations. This guide reviews the importance of recording ideas, organizing ideas, thinking about the audience, composing a speech, concluding a speech, preparing visual aids, and rehearsing the speech.</p> <p>SOLs: English 4.2a, 5.2, 5.3, 6.1a, 7.6, 8.2, 9.2, 10.11e, 11.1, 12.1</p>
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	<p><b>4-H Presentations (388-056)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-056/388-056.pdf">http://pubs.ext.vt.edu/388/388-056/388-056.pdf</a></p> <p><i>4-H Presentations</i> guides 4-Her's through the 4-H presentation project. This guide begins by helping 4-Her's understand why it is important that they do a presentation, and then helps them choose, plan, and organize their presentation.</p> <p>SOLs: English 4.2a, 4.8, 5.2, 5.3, 6.2, 7.1, 7.6, 8.2, 9.2, 10.11, 11.1, 12.1</p>
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**4-H Presentations Tip Sheet (388-061)**

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/388/388-061/388-061.pdf>

The *4-H Presentations Tip Sheet* identifies what type of presentation a presenter should conduct and the differences and similarities between a demonstration and an illustrated talk. This tip sheet also provides helpful hints about presenting posters or electronic presentations.

## Project Record Books

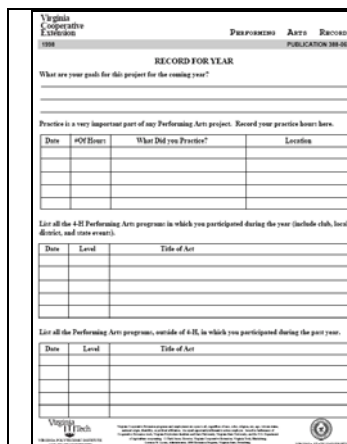


**Public Speaking Record Book (388-026)**

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/388/388-026/388-026.pdf>

The *Public Speaking Record Book* allows youth to record their goals for their project, practice hours, 4-H and non 4-H related speaking events during the year, programs that they assisted with but did not participate in, feedback received from events, expenses or income received, and knowledge gained during the project.




**Performing Arts Record (388-065)**

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/388/388-065/388-065.pdf>

The *Performing Arts Record* allows youth to record their goals for their project, practice hours, programs that they participated in during the year and past year, programs that they assisted with but did not participate in, expenses or income received, and knowledge gained during the project.

**My Project:** \_\_\_\_\_ **Year:** \_\_\_\_\_

 Name \_\_\_\_\_  
Address \_\_\_\_\_  
Phone Number (\_\_\_\_) \_\_\_\_\_  
Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_ Age \_\_\_\_  
4-H Club Name \_\_\_\_\_  
City/County \_\_\_\_\_ Volunteer Leader \_\_\_\_\_

**MEMBER STATEMENT**  
I have personally prepared this report and believe it to be correct:  
Member Signature \_\_\_\_\_ Date Completed \_\_\_\_\_  
**APPROVAL OF THIS RECORD**  
We reviewed this report and believe it to be correct:  
Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_  
4-H Volunteer Signature \_\_\_\_\_ Date \_\_\_\_\_

REPRINTED 2004 PUBLICATION 388-569  
Virginia Cooperative Extension  
Knowledge for the Commonwealth

**My Project (388-569)**  
Grades: 4-12  
Available online at: <http://pubs.ext.vt.edu/388/388-569/388-569.pdf>  
*My Project* is a general project book where 4-Her's record goals for the year, activities conducted during the project, and a 4-H story. Additionally, members construct a project portfolio and a project summary.

## Additional Resources

Virginia Cooperative Extension  
REvised 2002 PUBLICATION 388-062  
4-H Presentations Scoring Aid  
Revised by Barbara Johnson, 4-H Specialist, Curriculum and Learning

Name \_\_\_\_\_ Age \_\_\_\_\_  
Date and Year of Birth \_\_\_\_\_  
Title of Project \_\_\_\_\_  
NO OF YEARS IN THIS PROJECT \_\_\_\_\_

**4-H YEARS FOR VARIOUS PROJECTS**

Project	1 Year	2 Years	3 Years	4 Years
1. Home Science	10 points	15 points	20 points	25 points
2. Public Speaking	10 points	15 points	20 points	25 points
3. Public Reading	10 points	15 points	20 points	25 points
4. Public Writing	10 points	15 points	20 points	25 points
5. Public Speaking	10 points	15 points	20 points	25 points
6. Public Reading	10 points	15 points	20 points	25 points
7. Public Writing	10 points	15 points	20 points	25 points
8. Public Speaking	10 points	15 points	20 points	25 points
9. Public Reading	10 points	15 points	20 points	25 points
10. Public Writing	10 points	15 points	20 points	25 points
11. Public Speaking	10 points	15 points	20 points	25 points
12. Public Reading	10 points	15 points	20 points	25 points
13. Public Writing	10 points	15 points	20 points	25 points
14. Public Speaking	10 points	15 points	20 points	25 points
15. Public Reading	10 points	15 points	20 points	25 points
16. Public Writing	10 points	15 points	20 points	25 points
17. Public Speaking	10 points	15 points	20 points	25 points
18. Public Reading	10 points	15 points	20 points	25 points
19. Public Writing	10 points	15 points	20 points	25 points
20. Public Speaking	10 points	15 points	20 points	25 points
21. Public Reading	10 points	15 points	20 points	25 points
22. Public Writing	10 points	15 points	20 points	25 points
23. Public Speaking	10 points	15 points	20 points	25 points
24. Public Reading	10 points	15 points	20 points	25 points
25. Public Writing	10 points	15 points	20 points	25 points
26. Public Speaking	10 points	15 points	20 points	25 points
27. Public Reading	10 points	15 points	20 points	25 points
28. Public Writing	10 points	15 points	20 points	25 points
29. Public Speaking	10 points	15 points	20 points	25 points
30. Public Reading	10 points	15 points	20 points	25 points
31. Public Writing	10 points	15 points	20 points	25 points
32. Public Speaking	10 points	15 points	20 points	25 points
33. Public Reading	10 points	15 points	20 points	25 points
34. Public Writing	10 points	15 points	20 points	25 points
35. Public Speaking	10 points	15 points	20 points	25 points
36. Public Reading	10 points	15 points	20 points	25 points
37. Public Writing	10 points	15 points	20 points	25 points
38. Public Speaking	10 points	15 points	20 points	25 points
39. Public Reading	10 points	15 points	20 points	25 points
40. Public Writing	10 points	15 points	20 points	25 points
41. Public Speaking	10 points	15 points	20 points	25 points
42. Public Reading	10 points	15 points	20 points	25 points
43. Public Writing	10 points	15 points	20 points	25 points
44. Public Speaking	10 points	15 points	20 points	25 points
45. Public Reading	10 points	15 points	20 points	25 points
46. Public Writing	10 points	15 points	20 points	25 points
47. Public Speaking	10 points	15 points	20 points	25 points
48. Public Reading	10 points	15 points	20 points	25 points
49. Public Writing	10 points	15 points	20 points	25 points
50. Public Speaking	10 points	15 points	20 points	25 points
51. Public Reading	10 points	15 points	20 points	25 points
52. Public Writing	10 points	15 points	20 points	25 points
53. Public Speaking	10 points	15 points	20 points	25 points
54. Public Reading	10 points	15 points	20 points	25 points
55. Public Writing	10 points	15 points	20 points	25 points
56. Public Speaking	10 points	15 points	20 points	25 points
57. Public Reading	10 points	15 points	20 points	25 points
58. Public Writing	10 points	15 points	20 points	25 points
59. Public Speaking	10 points	15 points	20 points	25 points
60. Public Reading	10 points	15 points	20 points	25 points
61. Public Writing	10 points	15 points	20 points	25 points
62. Public Speaking	10 points	15 points	20 points	25 points
63. Public Reading	10 points	15 points	20 points	25 points
64. Public Writing	10 points	15 points	20 points	25 points
65. Public Speaking	10 points	15 points	20 points	25 points
66. Public Reading	10 points	15 points	20 points	25 points
67. Public Writing	10 points	15 points	20 points	25 points
68. Public Speaking	10 points	15 points	20 points	25 points
69. Public Reading	10 points	15 points	20 points	25 points
70. Public Writing	10 points	15 points	20 points	25 points
71. Public Speaking	10 points	15 points	20 points	25 points
72. Public Reading	10 points	15 points	20 points	25 points
73. Public Writing	10 points	15 points	20 points	25 points
74. Public Speaking	10 points	15 points	20 points	25 points
75. Public Reading	10 points	15 points	20 points	25 points
76. Public Writing	10 points	15 points	20 points	25 points
77. Public Speaking	10 points	15 points	20 points	25 points
78. Public Reading	10 points	15 points	20 points	25 points
79. Public Writing	10 points	15 points	20 points	25 points
80. Public Speaking	10 points	15 points	20 points	25 points
81. Public Reading	10 points	15 points	20 points	25 points
82. Public Writing	10 points	15 points	20 points	25 points
83. Public Speaking	10 points	15 points	20 points	25 points
84. Public Reading	10 points	15 points	20 points	25 points
85. Public Writing	10 points	15 points	20 points	25 points
86. Public Speaking	10 points	15 points	20 points	25 points
87. Public Reading	10 points	15 points	20 points	25 points
88. Public Writing	10 points	15 points	20 points	25 points
89. Public Speaking	10 points	15 points	20 points	25 points
90. Public Reading	10 points	15 points	20 points	25 points
91. Public Writing	10 points	15 points	20 points	25 points
92. Public Speaking	10 points	15 points	20 points	25 points
93. Public Reading	10 points	15 points	20 points	25 points
94. Public Writing	10 points	15 points	20 points	25 points
95. Public Speaking	10 points	15 points	20 points	25 points
96. Public Reading	10 points	15 points	20 points	25 points
97. Public Writing	10 points	15 points	20 points	25 points
98. Public Speaking	10 points	15 points	20 points	25 points
99. Public Reading	10 points	15 points	20 points	25 points
100. Public Writing	10 points	15 points	20 points	25 points

Final Rating: Blue 90-100, Red 75-89, White 74 or below

**4-H Presentations Scoring Aid (388-062)**  
Grades: 4-12  
Available online at: <http://pubs.ext.vt.edu/388/388-062/388-062.pdf>  
The *4-H Presentations Scoring Aid* is used for all 4-H presentations. This aid rates presenters based upon the general presence of the 4-H member, the presentation, and subject matter of the presentation. Awards are based upon the Danish system: 100-90 blue, 89-75 red, and 74 or below white.

Virginia Cooperative Extension  
REvised 2002 PUBLICATION 388-064  
4-H Score Sheet for Share-the-Fun Acts  
Revised by Barbara Johnson, 4-H Specialist, Curriculum and Learning

**Information for Scoring 4-H Share-the-Fun Acts**

The suggested items to consider in scoring the 4-H Share-the-Fun acts are:  
 - Material Chosen: 10 points  
 - Talent: 10 points  
 - Audience Response: 10 points  
 - Costumes and Props: 10 points

Our primary objective in the Share-the-Fun program is to encourage 4-H members to discover and develop their talents, and to develop confidence in self and performing before others. This score sheet is designed to have judges evaluate 4-H members' performances, give members feedback to assist with their continuous development, and assist in the selection of acts that can be used in an exciting, entertaining variety show. This aid rates performers based upon material chosen, talent, audience response, creativity, showmanship and costumes and props. Each act has a maximum of four minutes to perform, with a maximum of four members per act. Awards are based upon the Danish system: 100-90 blue, 89-75 red, and 74 or below white.

**4-H Score Sheet for Share-the-Fun Acts (388-064)**  
Grades: 4-12  
Available online at: <http://pubs.ext.vt.edu/388/388-064/388-064.pdf>  
The primary objective in the Share-the-Fun program is to encourage 4-H members to discover and develop their talents, and to develop confidence in self and performing before others. This score sheet is designed to have judges evaluate 4-H members' performances, give members feedback to assist with their continuous development, and assist in the selection of acts that can be used in an exciting, entertaining variety show. This aid rates performers based upon material chosen, talent, audience response, creativity, showmanship and costumes and props. Each act has a maximum of four minutes to perform, with a maximum of four members per act. Awards are based upon the Danish system: 100-90 blue, 89-75 red, and 74 or below white.

Virginia Cooperative Extension  
REVISED 2008 PUBLICATION 388-066

### 4-H Public Speaking Score Sheet

Zachary Jackson, Ph.D., 4-H Coordinator and Learning Specialist

Speaker's Name: \_\_\_\_\_

Age by Sept. 30 of current year: \_\_\_\_\_ Date: \_\_\_\_\_

Speech Title: \_\_\_\_\_ Length of Speech: \_\_\_\_\_

Score: 5, 4, 3 pts

**General Appearance, Posture, Posture (10 pts possible)**

Healthy, relaxed, well-groomed, good posture \_\_\_\_\_

Calm, pleasant, confident, at ease \_\_\_\_\_

**Speech Selection (20 pts possible)**

Age appropriate topic, one theme \_\_\_\_\_

Visual (20 pts possible):

Fluently, volume, speed, tone, rhythm \_\_\_\_\_

Clear pronunciation \_\_\_\_\_

No long pauses, no "uh/ah" words (on, oh, you know) \_\_\_\_\_

Number of entries, distinct, relevant \_\_\_\_\_

Enthusiasm, personality comes through \_\_\_\_\_

Speaker engages and retains audience attention \_\_\_\_\_

**Speech (20 pts possible)**

Well organized, logical order \_\_\_\_\_

Introduction, body, conclusion \_\_\_\_\_

Use of facts, accurate, relevant information \_\_\_\_\_

Fluency in speech \_\_\_\_\_

Adheres to time limit \_\_\_\_\_

**Use of Language (10 pts possible)**

Appropriate word choice, clear, correct phrasing \_\_\_\_\_

Clear, correct grammar \_\_\_\_\_

**Expression (10 pts possible)**

Clear eye contact \_\_\_\_\_

Appropriate posture, body language \_\_\_\_\_

Responsive to questions (10 pts possible) \_\_\_\_\_

Adequate, complete answers \_\_\_\_\_

Strong, spontaneous response \_\_\_\_\_

**TOTAL POINTS**

\_\_\_\_\_

Checksheet do not receive points - comments only  
 Novice (Elementary) - Intermediate (Middle School) = 3-4 min., Seniors (High School) = 5-7 min.  
 Scores: Blue = 100 - 90 Red = 89 - 75 White = 74 and below  
 Change reference, use the Public Speaking Judging Tables to clarify  
 Components of a speech: speaker, audience, speech, no props or costumes.

## 4-H Public Speaking Score Sheet (388-066)

Grades: 4-12

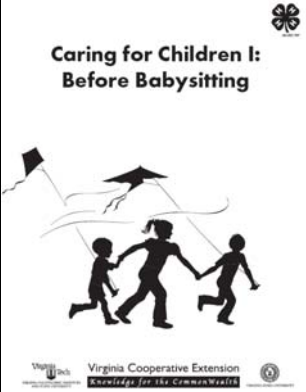
Available online at: <http://pubs.ext.vt.edu/388/388-066/388-066.pdf>

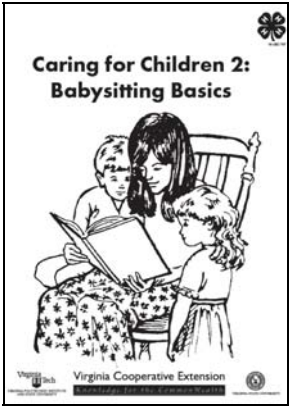
The *4-H Public Speaking Score Sheet* is used for all 4-H public speaking events. This aid rates presenters' based upon the general presence of the 4-H member, speech selection, voice, speech, use of language, expression, and response to questions. For Juniors and Intermediates there speech should be approximately 3-6 minutes, and seniors 5-7 minutes. Awards are based upon the Danish system: 100-90 blue, 89-75 red, and 74 or below white.

# FAMILY SCIENCES

The Family Science 4-H Curriculum includes project material related to clothing and textiles and family life.

## Project Books/Guides

	<b>Caring for Children 1: Before Babysitting (350-035)</b>
	Grades: 6 & 7
	Available online at: <a href="http://pubs.ext.vt.edu/350/350-035/350-035.pdf">http://pubs.ext.vt.edu/350/350-035/350-035.pdf</a>
	<p>In <i>Caring for Children 1: Before Babysitting</i> youth learn more about themselves and what young children are like. They will spend time with younger children and their parents or caregivers, playing and having fun with them. Further, youth will have the opportunities to create games, toys, and play activities especially for young children. These experiences will help them decide if they really want to have babysitting jobs when they are older.</p>
	SOLs: FLE: 6.2, 6.7, 6.8, 7.1, 7.3

	<b>Caring for Children 2: Babysitting Basics (350-045)</b>
	Grades: 8-12
	Available online at: <a href="http://pubs.ext.vt.edu/350/350-045/350-045.pdf">http://pubs.ext.vt.edu/350/350-045/350-045.pdf</a>
	<p><i>Caring for Children 2: Babysitting Basics</i> teaches youth valuable life skills, such as, responsibility, understanding self, problem solving, decision-making, communication, leadership, and acquiring knowledge. Through this project book youth will learn, the roles and responsibilities of babysitters and parents of young children; how to care for and keep infants and young children safe and happy; how to solve problems related to minor accidents, emergencies, and behavior; to understand the physical, social, mental, and emotional characteristics of young children; and how to communicate with young children during playtime using toys and games.</p>
	SOLs: FLE: 8.1, 8.3, 9.2, 9.4, 10.3, 10.4, 11.9, 11.10, 11.12, 11.4

	<p><b>Safe at Home Safe Alone—Youth Book (350-523)</b></p> <p>Grades: 3-5</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/350/350-523/350-523.pdf">http://pubs.ext.vt.edu/350/350-523/350-523.pdf</a></p> <p><i>Safe at Home/Safe Alone</i> is designed to educate youth with the life skills needed to successfully handle self-care situations. This curriculum is designed for youth ages nine to eleven. <i>Safe at Home/Safe Alone</i> is a workbook created to inform youth on topics such as having a safe home environment, stranger safety, emergency preparation, simple first aid, coping with loneliness and boredom, handling conflict with peers and siblings, and preparing nutritious snacks.</p>
	<p>SOLs: PWCS Guidance and Counseling objectives:</p> <ul style="list-style-type: none"> <li>4P.7: Demonstrate different coping strategies for various situations and life changes.</li> <li>4P.8: Identify factors that impact personal safety and well-being.</li> <li>4P.9: Demonstrate self-reliance.</li> </ul> <p>Virginia Standards:</p> <ul style="list-style-type: none"> <li>EP5: Demonstrate self-discipline and self-reliance.</li> </ul> <p>ASCA National Standard:</p> <ul style="list-style-type: none"> <li>PS:B1.4: Develop effective coping skills for dealing with problems.</li> <li>PS:C1.1: Demonstrate knowledge of personal information.</li> </ul> <p>PWCS strategic plan objective to be met:</p> <p>Objective 2.2: Increase safe, responsible, and healthy student behavior</p>

	<p><b>4-H Fashion Revue Consumer Comparison Worksheet (346-148)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/346/346-148/346-148.pdf">http://pubs.ext.vt.edu/346/346-148/346-148.pdf</a></p> <p>Consumer Comparison is the consideration of two things with regard to some characteristics common to both, for example, cost of a garment, quality of construction, and care instructions. The <i>4-H Fashion Revue Consumer Comparison Worksheet</i> allows youth to use their Fashion Revue garment (constructed or selected), and make comparisons with other similar garments based upon: the description of the garment, the store from which the garment was purchased, total cost and fiber content of the garment, care instructions, and construction quality.</p>
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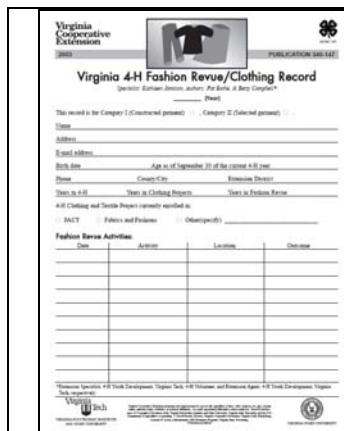
### 4-H Fashion Revue Commentary Worksheet (346-149)

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/346/346-149/348-149.pdf>

*4-H Fashion Revue Commentary Worksheet* is a guide the members can use to help them write commentary on their fashion revue project that will be read to judges. This worksheet does not have to be submitted with the written commentary for state competition; however, it is an excellent tool for beginning the commentary process.

## Project Record Book



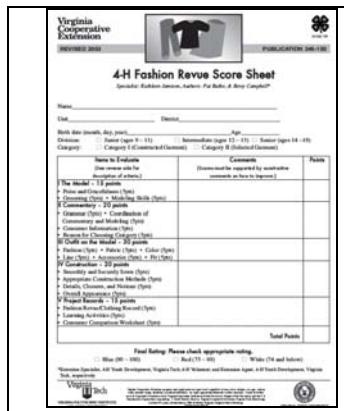
### Virginia 4-H Fashion Revue/Clothing Record (346-147)

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/346/346-147/346-147.pdf>

The *Virginia 4-H Fashion Revue/Clothing Record* allows youth to record fashion revue activities, other activities such as modeling and fashion shows, the outcome of fashion exhibitions, and life skills gained from the project.

## Additional Resource



### 4-H Fashion Revue Score Sheet (346-150)

Grades: 4-12

Available online at: <http://pubs.ext.vt.edu/346/346-150/346-150.pdf>

The *4-H Fashion Revue Score Sheet* is designed to assist judges in evaluating 4-H members' performances, and give members feedback to assist with their continuous development. This aid rates exhibitors' based upon the model, commentary, the outfit on the model, the construction of the garment, and project records. Awards are based upon the Danish system: 100-90 blue, 89-75 red, and 74 or below white.

# FOOD, NUTRITION, & HEALTH

The 4-H Foods and Nutrition projects teach youth, ages 9 to 19, and 4-H Cloverbuds, ages 5 to 8, about nutrition and why it's important for good health. Projects emphasize My Pyramid, Dietary Guidelines, and food preparation skills to prepare nutritious snacks and meals. Many projects incorporate how food is produced explaining the food chain from farmer to processor to grocery store to consumer. Food buying skills and label reading are incorporated for older children. Food as a part of our culture/heritage and international foods are included. Food safety is stressed. Leadership, citizenship, and career opportunities are included.

## Project Books/Guides

	<p><b>Kids Kitchen: Start Your Engine! (348-456)</b></p> <p>Grades: 4-7</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/348/348-456/348-456.pdf">http://pubs.ext.vt.edu/348/348-456/348-456.pdf</a></p> <p><i>Kids Kitchen: Start Your Engine!</i> is a two-page publication that informs youth of the importance of eating a healthy, nutritious breakfast. Kids Kitchen visually demonstrates the effects on a person who has not eaten breakfast, someone who has eaten sugary foods such as soda or candy, and someone who has eaten cereal, toast, milk, and fruit for breakfast.</p> <p>SOLs: Health 4.1, 5.2a, b, 7.2a</p>
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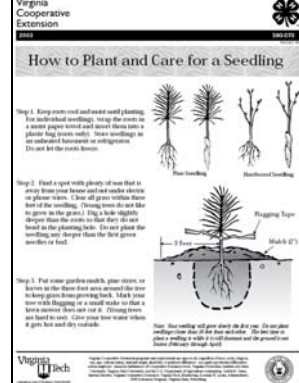
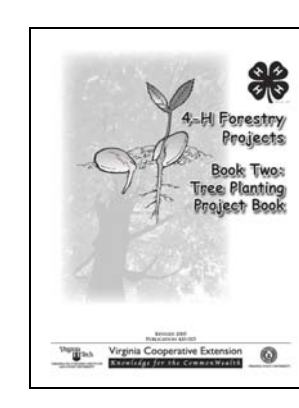
	<p><b>Kids Kitchen: Which cereal should I eat? (348-790)</b></p> <p>Grades: 4-7</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/348/348-790/348-790.pdf">http://pubs.ext.vt.edu/348/348-790/348-790.pdf</a></p> <p><i>Kids Kitchen: Which cereal should I eat?</i> is a two-page publication that helps youth choose which cereal is the most nutritious for them. Kids Kitchen visually demonstrates the dramatic difference in the sugar content per serving of Frosted Fruit O's, Corn Squares, and Chocolate Puffs.</p> <p>SOLs: Health 4.1b, 7.2a</p>
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# NATURAL RESOURCES & ENVIRONMENTAL EDUCATION

The Virginia 4-H Natural Resources and Environment Education (NREE) curriculum area includes six major components: Aquatic and Marine Science, Environmental Sciences, Fishing, Forestry, Outdoor Adventure, Shooting Education, Wildlife, and Wood Sciences.

Each of these project areas offers opportunities for youth to be involved in hands-on learning through project books, training programs, specialty camps, contests, workshops, field days and presentations.

## Project Books/Guides

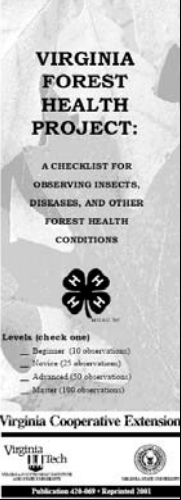
	<p><b>How to Plant and Care for a Seedling (390-070)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/390/390-070/390-070.pdf">http://pubs.ext.vt.edu/390/390-070/390-070.pdf</a></p> <p>Tree planting is something positive a young person can do for the environment. It also makes good economic sense since trees provide jobs, add value to property, and protect and enhance the environment. <i>How to Plant and Care for a Seedling</i> describes a three step process for planting and caring for seedling in Virginia.</p> <p>SOLs: Science LS.4a</p>
	<p><b>4-H Forestry Projects Book Two: Tree Planting Project Book (420-025)</b></p> <p>Grades: 4-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/420/420-025/420-025.pdf">http://pubs.ext.vt.edu/420/420-025/420-025.pdf</a></p> <p>Planting a seedling is the easiest and most economical way to plant a tree. Trees and the leaves that fall to the ground protect the soil from erosion. They also increase the amount of water the soil can hold to help prevent flooding. This <i>Tree Planting Project Book</i> contains activities that teach youth ages 9-18 how to decide what to plant, where to plant, and how to plant a seedling, sapling, or a tree from seed. This project book also includes ideas for exhibits, presentations, community service, and science fair projects.</p> <p>SOLs: Science 4.8d, 6.9a, LS.4a</p>

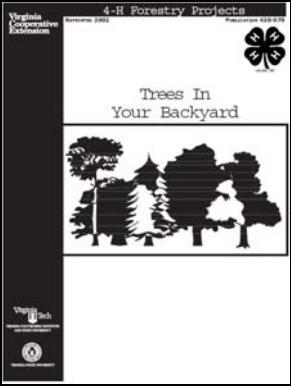


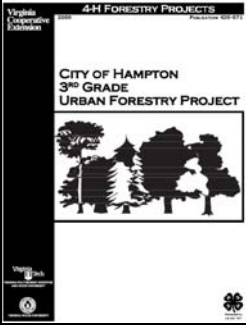
	<b>Checklist of Virginia Trees and Their Uses (420-065)</b>
	Grades: 4-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-065/420-065.pdf">http://pubs.ext.vt.edu/420/420-065/420-065.pdf</a> <i>Checklist of Virginia Trees and Their Uses</i> is a guide to native trees found in Virginia, which includes urban trees and important forest plants. This guide covers the Ginko, Pine, Cypress, Cedar, Magnolia, Custard-Apple, Laurel, Sycamore, Witch-Hazel, Elm, Mulberry, Walnut, Beech, Birch, Linden, Willow, Poplar, Heath, Ebony, Rose, Dogwood, Buckeye, Maple, Bitterwood, Olive, Figwort, Trumpet-Creeper, and Euphoria families.
	SOLs: Science 4.8d, LS.5c

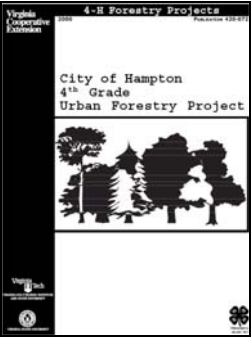
	<b>Tree Identification Contest #1 (420-066)</b>
	Grades: 4-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-066/420-066.pdf">http://pubs.ext.vt.edu/420/420-066/420-066.pdf</a> <i>Tree Identification Contest #1</i> is a publication that helps teach youth what type of leaf and fruit are produced by the following trees: Loblolly Pine, Red Maple, Slippery Elm, White Oak, Sassafras, American Holly, American Beech, Sweetgum, Tulip Tree, Flowering Dogwood, Sycamore, Hickory, Black Willow, Northern Red Oak, Shortleaf Pine, and Blackgum. This contest is only for the Coastal Plain and Eastern Piedmont counties of Virginia.
	SOLs: Science 4.4a, LS.5c

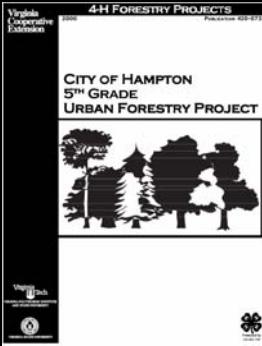
	<b>Virginia 4-H Pine Seedling Project (420-068)</b>
	Grades: 4-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-068/420-068.pdf">http://pubs.ext.vt.edu/420/420-068/420-068.pdf</a> Tree planting is something positive a young person can do for the environment. It also makes good economic sense since trees provide jobs, add value to property, and protect and enhance the environment. The <i>Virginia 4-H Pine Seedling Project</i> describes the proper way to hand plant seedlings, and provides an area to record the weather conditions and other pertinent data about the region where the seedlings were planted.
	SOLs: Science 4.4a, LS.4a

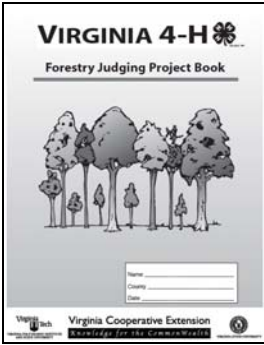
	<b>Virginia Forest Health Project: A Checklist for Observing Insects, Diseases, and Other Forest Health Conditions (420-069)</b>
	Grades: 4-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-069/420-069.pdf">http://pubs.ext.vt.edu/420/420-069/420-069.pdf</a>
	The <i>Virginia Forest Health Project</i> is a checklist for observing insects, diseases, and other forest health conditions. This checklist lists possible conifer insects, conifer diseases, hardwood insects, hardwood diseases, and other pests and conditions.
	SOLs: LS.5c

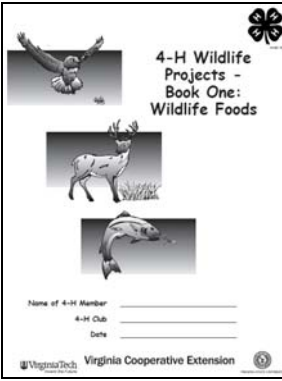
	<b>Trees In Your Backyard (420-070)</b>
	Grades: 4-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-070/420-070.pdf">http://pubs.ext.vt.edu/420/420-070/420-070.pdf</a>
	This project introduces youth to the study of trees by having them look at the leaf characteristics of trees in their backyard or nearby forest. The illustrations in this book represent 22 of the most common trees in Virginia. There are seven activities covered in this project book which include: Looking at Leaves—Broad- and Needle-leaved Trees, Using a key to Identify Trees, Making a Leaf Collection, Making a Seed Collection, Nominating a Big Tree, and Ideas for Exhibits, Presentations, and Community Service. Youth may want to purchase or borrow a tree identification guide to help with some of the less common species.
	SOLs: Science 4.4a, LS.5c

	<b>City of Hampton 3<sup>rd</sup> Grade Urban Forestry Project (420-071)</b>
	Grade: 3
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-071/420-071.pdf">http://pubs.ext.vt.edu/420/420-071/420-071.pdf</a>
	Trees have life cycles, just like insects, mammals and other animals. Tree life cycle stages include seedling, saplings, mature trees, dead trees and rotting logs. Each of these life cycle stages is important. A sprout is important because it will take the place of a mature tree when it dies. In this study youth will compare tree life cycle stages in three places: at school, at home, and at a natural area. They will collect data, report their results, and answer questions to help make conclusions. The project is designed to enhance the science curriculum using the urban forest as a study site. Leaders should use <i>Project Learning Tree</i> activities that are correlated with the Virginia Standards of Learning (SOLs). These activities offer a special, hands-on approach to learning.
	SOLs: Math 3.21 (collecting data and making a bar graph) Math 3.22 (interpreting bar graphs) Science 3.1 (conducting a scientific investigation) Science 3.8 (animal and plant life cycles)

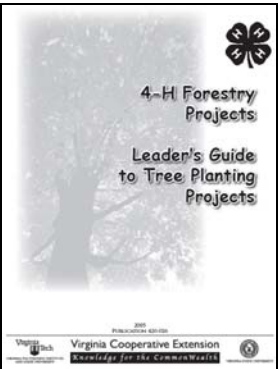
	<b>City of Hampton 4<sup>th</sup> Grade Urban Forestry Project (420-072)</b>
	Grade: 4
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-072/420-072.pdf">http://pubs.ext.vt.edu/420/420-072/420-072.pdf</a>
	The project is designed to enhance the science curriculum using the urban forest as a study site. Leaders should use <i>Project Learning Tree</i> activities that are correlated with the Virginia Standards of Learning (SOLs). These activities offer a special, hands-on approach to learning. This project book is intended to be completed after each activity because youth can practice what they have learned and extend that learning to new and challenging situations. The end-result is greater mastery of subject matter and life skills.
	SOLs: Science 4.4 (plant structures) Science 4.4 (reproduction, dormancy) Science 4.8 (Virginia natural resources)

	<b>City of Hampton 5<sup>th</sup> Grade Urban Forestry Project (420-073)</b>
	Grade: 5
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-073/420-073.pdf">http://pubs.ext.vt.edu/420/420-073/420-073.pdf</a>
	Tree identification is important because different types of trees have different requirements for growth, and have different values to people. If you want to learn more about trees, you will need to know their names. Trees can be studied easily, providing living examples of scientific concepts. In this project youth will learn the common names of trees that can be found in the City of Hampton. These activities offer a special, hands-on approach to learning. This project book is intended to be completed after each activity because youth can practice what they have learned and extend that learning to new and challenging situations. The end-result is greater mastery of subject matter and life skills.
	SOLs: English 5.3 (make a planned oral presentation) Math 5.9 (identify the diameter, radius and circumference of a circle) Science 5.1 (identify organisms using a classification key)

	<b>Virginia 4-H Forestry Judging Project Book (420-125)</b>
	Grades: 9-12
	Available online at: <a href="http://pubs.ext.vt.edu/420/420-125/420-125.pdf">http://pubs.ext.vt.edu/420/420-125/420-125.pdf</a>
	This project book is designed to help senior level 4-H members learn and practice the skills necessary to compete in district, state, and national 4-H forestry judging contests. Forestry judging consists of the following: tree identification, tree measurements, compass traverse, topographic map reading, forestry quiz bowl, forest evaluation, insect identification, forestry written exam, and disease identification. To complete this project book, youth must complete the score sheet provided in each section and participate in a forestry bowl or written exam.
	SOLs: ES.1a,c, BIO.1a

	<b>4-H Wildlife Projects—Book One: Wildlife Foods (390-405)</b>
	<b>Grades: 4-6</b>
	<b>Available online at: <a href="http://pubs.ext.vt.edu/390/390-405/390-405.pdf">http://pubs.ext.vt.edu/390/390-405/390-405.pdf</a></b>
	<p>This project book introduces junior 4-H members, ages 9-13, to the 4-H Wildlife Habitat Evaluation Program (WHEP), which provides competitive events and recognition for 4-H members. Habitat evaluation is important because our ever-growing human population is leaving less land and water available for wildlife. Through this project book youth will demonstrate an understanding of food webs by creating examples, will be able to identify 15 categories of wildlife food, and will use their knowledge of foods and food webs to evaluate habitat for its importance to wildlife.</p>
	<b>SOLs:</b> Science 3.5 (Producer, consumer, herbivore, carnivore, omnivore.) Science 3.10 (Conservation and habitat management.) Science 4.5 (Flow of energy through food webs; habitats and niches.) Science 4.8 (Virginia's natural resources, including animals and plants) Science 6.9 (Producers, consumers, decomposers, food webs) Science 6.11 (Management of renewable resources)

## Leaders Material

	<b>4-H Forestry Projects Leader's Guide to Tree Planting Projects (420-026)</b>
	<b>Grades: 4-12</b>
	<b>Available online at: <a href="http://pubs.ext.vt.edu/420/420-026/420-026.pdf">http://pubs.ext.vt.edu/420/420-026/420-026.pdf</a></b>
	<p>Tree planting is something positive a young person can do for the environment. It also makes good economic sense since trees provide jobs, add value to property, and protect and enhance the environment. In most cases, planting trees is also an unselfish act since the benefits will mostly be enjoyed by future generations. This Project Leader's Guide is intended for adults who are working with youth ages 9-18 on tree planting projects.</p>
	<b>SOLs:</b> Science 4.1, 4.4, 4.8, 6.1, 6.9, ES.1, ES.7, ES.9, LS.4, LS.11, LS.12, BIO.1, BIO.9 Math 4.2, 4.11, 4.15, 4.16, 4.19, 4.20, 5.1, 5.11, 5.17, 5.18, 5.19, 5.21, 6.1, 6.4, 6.9, 6.18, 6.19, 6.23, 7.1, 7.17, 7.22 History VS.2, VS.3, VS.7

# School Enrichment

	<p><b>Virginia 4-H School Enrichment: Forestry (388-802)</b></p> <p>Grades: 4-5</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-802/388-802.pdf">http://pubs.ext.vt.edu/388/388-802/388-802.pdf</a></p> <p>As an agricultural commodity, timber ranks third behind livestock and poultry. As a crop, timber ranks first, higher than corn, cotton, peanuts, soybeans, and wheat. We get much more than timber from our forests. Forests also provide ecosystem benefits, improving our air and water and providing habitat for wildlife. <i>Virginia 4-H Forestry School Enrichment Curriculum</i> includes six lessons: tree identification, tree identification contest, Virginia natural resources, tapping a maple tree, pine seedlings, and pine seedling survival. These lessons were selected because they represent activities that youth enjoy, and they lead to other 4-H projects and activities.</p> <p>SOLs: Science 4.1a, 4.4a, b, 4.5a, c, d, 4.8b, 5.1c, 5.5a</p>
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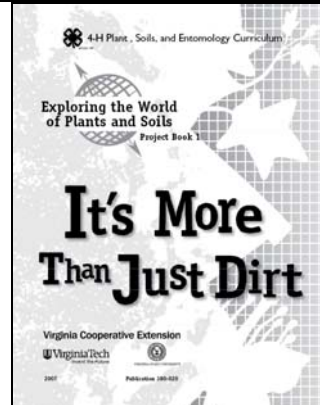
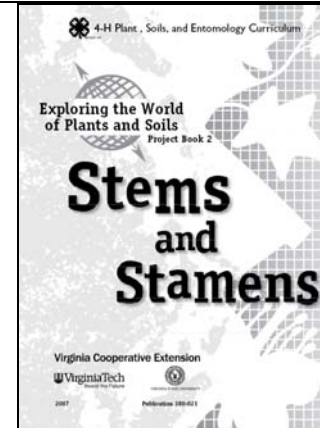
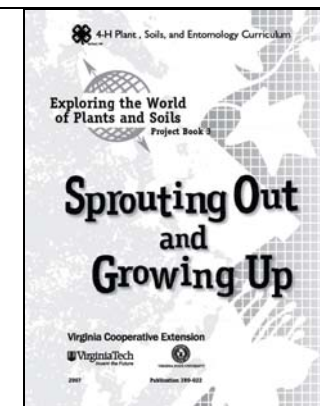
	<p><b>Virginia 4-H School Enrichment: Wood Magic (Nine-Eleven year olds) (388-807)</b></p> <p>Grades: 4-6</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-807/388-807.pdf">http://pubs.ext.vt.edu/388/388-807/388-807.pdf</a></p> <p><i>Wood Magic</i> is designed for nine to eleven year olds as a supplement to information that students study in their existing science curriculum. The <i>Wood Magic Leaders Guide</i> materials are designed to help school teachers and afterschool facilitators to facilitate the learning about environment science, particularly wood science and forestry. The activities engage students in doing, reflecting, and applying wood science to their daily world. The underlying themes include how wood adds value to our quality of life, the role of wood utilization in a sustainable future, and how science is used to improve the production of recyclable forest products. These materials present factual information in an entertaining, engaging, and interactive way.</p> <p>SOLs: Science 4.1a, b, c, 4.4, 4.8b, d, 5.1a, b, 5.5</p>
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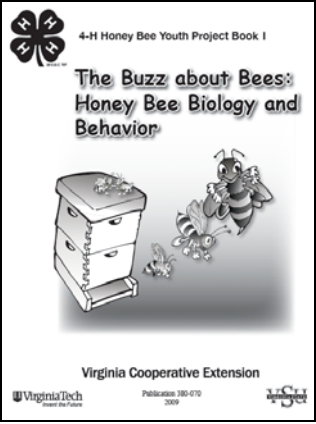
	<p><b>Virginia 4-H School Enrichment: Wood Magic (Fourteen-Eighteen year olds) (388-809)</b></p> <p>Grades: 8-12</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-809/388-809.pdf">http://pubs.ext.vt.edu/388/388-809/388-809.pdf</a></p> <p><i>Wood Magic</i> is a curriculum designed for youth ages 14 to 18 to raise awareness of how wood has become a vital part of our lives and the role of wood utilization in a sustainable future. This activity guide can easily be implemented into a formal or informal educational setting. If used in a formal educational setting, <i>Wood Magic</i> can serve as a supplement to an existing science curriculum. Overall, <i>Wood Magic</i> serves to prepare students to make ethical choices dealing with wood utilization. Through education, students can understand how their actions and the actions of others impact their immediate and distant surroundings. Students will gain an appreciation for the magic that surrounds wood and its products.</p> <p>SOLs: BIO.1b, ES.2d, ES.7</p>
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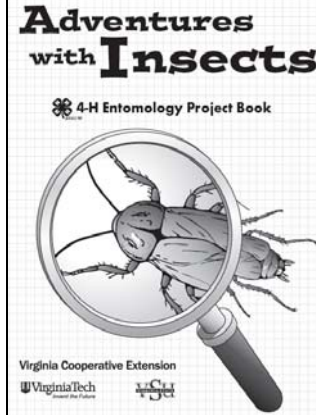
# PLANTS, SOILS, & ENTOMOLOGY

In the area of Plants, Soils, and Entomology, 4-H'ers will explore the world of horticulture, soils, and insects.

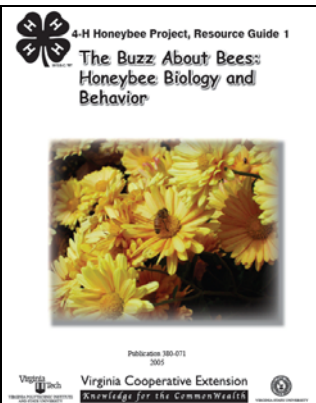
## Project Books/Guides

	<p><b>Exploring the World of Plants and Soils Project Book 1: It's More Than Just Dirt (380-020)</b></p> <p>Grades: 6-8</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-020/380-020.pdf">http://pubs.ext.vt.edu/380/380-020/380-020.pdf</a></p> <p><i>Exploring the World of Plants and Soils</i> is a three book series, written for youth ages 12-14, which explores the many factors involved in plant growth and reproduction through experimentation, investigation, and observation. The third activity book, <i>It's More Than Just Dirt</i>, explores the varied features and roles of soil as it supports plant growth through the provision of water, air, nutrients, and stability.</p> <p>SOLs: LS.7, 12e Math 6.1, 6.9, 7.1, 7.4, 7.5 LA 6.2, 6.6, 7.1</p>
	<p><b>Exploring the World of Plants and Soils Project Book 2: Stems and Stamens (380-021)</b></p> <p>Grades: 6-8</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-021/380-021.pdf">http://pubs.ext.vt.edu/380/380-021/380-021.pdf</a></p> <p><i>Exploring the World of Plants and Soils</i> is a three book series, written for youth ages 12-14, which explores the many factors involved in plant growth and reproduction through experimentation, investigation, and observation. The first activity book, <i>Stems and Stamens</i>, encourages youth to explore the composition of plants, the functions of individual plant parts, plant life cycles, and the many ways plants reproduce.</p> <p>SOLs: LS.4, 3, 3b, 5c, 6, 7 LA 6.2, 6.6, 7.1, 7.7</p>
	<p><b>Exploring the World of Plants and Soils Project Book 3: Sprouting Out and Growing Up (380-022)</b></p> <p>Grades: 6-8</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-022/380-022.pdf">http://pubs.ext.vt.edu/380/380-022/380-022.pdf</a></p> <p><i>Exploring the World of Plants and Soils</i> is a three book series, written for youth ages 12-14, which explores the many factors involved in plant growth and reproduction through experimentation, investigation, and observation. The second activity book, <i>Sprouting Out and Growing Up</i>, looks at the environmental and internal factors that affect plant growth.</p> <p>SOLs: LS.4a, .4c, .6, .8a, .9c, .9d, .10, .11, .11a, .14 LA 6.2, 6.6, 7.1, 7.7 Math 6.1, 6.1, 7.1, 7.5</p>

	<p><b>4-H Honey Bee Youth Project Book 1—The Buzz About Bees: Honeybee Biology and Behavior (380-070)</b></p>
	<p>Grades: 3-8</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-070/380-070.pdf">http://pubs.ext.vt.edu/380/380-070/380-070.pdf</a></p>
	<p>The beekeeping project book one will teach youth the basic biology and behavior of honey bees and give youth hands-on management skills. This project book is intended to provide in-depth information related to honey bee management, yet it is written for the amateur beekeeper, whether or not youth have previous experience in rearing honey bees. <i>The Buzz about Bees: Honey Bee Biology and Behavior</i>, written for youth ages 10-13, explores basic honey bee and insect information. This book is intended to introduce youth to honey bee biology and foraging behavior, then the dynamics of the honey bee colony.</p>
<p>SOLs: Science 3.1a, 3.4a, 3.10b, 4.1a, 4.4a,b, 4.5, 4.8b, LS.4, LS.5c, LS.8, LS.9, LS.12</p>	

	<p><b>Adventures with Insects—4-H Entomology Project Book (444-408)</b></p>
	<p>Grades: 4-7</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/444/444-408/444-408.pdf">http://pubs.ext.vt.edu/444/444-408/444-408.pdf</a></p>
	<p><i>Adventures with Insects—4-H Entomology Project Book</i> introduces youth to many new and exciting experiences. The Entomology Project is fun; it may help youth prepare for the study of insects as their life's work, or help learn how important insects are in the lives of everyone. The project book covers insect biology, where to look for insects, how to collect specimens, how to preserve specimens, and how to identify insects.</p>
<p>SOLs: Science 4.1a, 4.5e, 6.1a, LS.4b, LS.5, LS.12</p>	

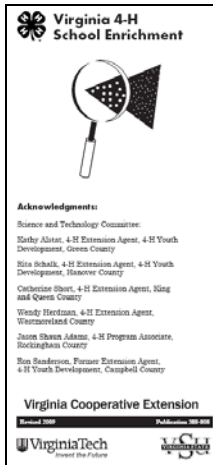
## Leaders Materials

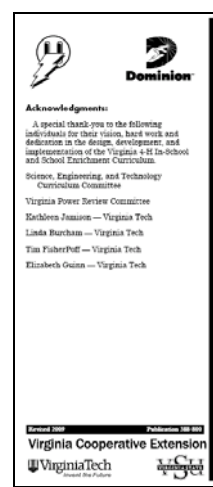
	<p><b>4-H Honey Bee Leaders Guide Book I—The Buzz About Bees: Honeybee Biology and Behavior (380-071)</b></p>
	<p>Grades: 3-7</p>
	<p>Available online at: <a href="http://pubs.ext.vt.edu/380/380-071/380-071.pdf">http://pubs.ext.vt.edu/380/380-071/380-071.pdf</a></p>
	<p>The beekeeping project book one provides leaders information to teach youth the basic biology and behavior of honey bees and gives youth hands-on management skills. This project book is intended to provide in-depth information related to honey bee management, yet it is written for the amateur beekeeper, whether or not youth have previous experience in rearing honey bees. <i>The Buzz about Bees: Honey Bee Biology and Behavior</i> is written for leaders to provide assistance to youth ages 11-13 and explores basic honey bee and insect information. This book is intended to provide leaders with information to introduce youth to honey bee biology and foraging behavior then the dynamics of the honey bee colony.</p>
<p>SOLs: Science 4.4b, 4.5b,e,f, 4.8b, 5.5, LS.5, LS.8a</p>	

# SCIENCE, ENGINEERING, & TECHNOLOGY

The Science, Engineering, and Technology Curriculum is an increasingly important part of Virginia 4-H educational programming. The Science, Engineering, and Technology curriculum covers these major areas: Aerospace, Computers, Electric Energy, Robotics, and Applied Science.

## School Enrichment

 <p><b>Virginia 4-H School Enrichment</b></p> <p><b>SCIENTIFIC INQUIRY</b></p> <p>Activity 1: Do You See What I See? ... 1-5          Activity 2: Classify That! ... 5-13          Activity 3: Measuring "Heat" ... 5-18          Activity 4: Tell Me How It's Done! ... 5-24          Activity 5: What Makes the "Sun" Shine? ... 5-28          Activity 6: Telling What You Know ... 5-29</p> <p><b>Acknowledgments:</b>          Science and Technology Committee:          Kathy Alkret, 4-H Extension Agent, 4-H Youth Development, Greens County          Nina Sobell, 4-H Extension Agent, 4-H Youth Development, Staunton County          Catherine Short, 4-H Extension Agent, King and Queen County          Wendy Heckman, 4-H Extension Agent, Westmoreland County          Jason Shaun Adams, 4-H Program Associate, Rockingham County          Ron Swanson, Former Extension Agent, 4-H Youth Development, Campbell County</p> <p>Virginia Cooperative Extension          Revised 2009      Publication 388-808</p> <p>VirginiaTech          toward the Future</p>	<p><b>Virginia 4-H School Enrichment: Scientific Inquiry (388-808)</b></p> <p>Grades: 4-7</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-808/388-808.pdf">http://pubs.ext.vt.edu/388/388-808/388-808.pdf</a></p> <p><i>Scientific Inquiry</i>, was developed as a school enrichment curriculum, but includes activities that can be used in a variety of settings including: in-school, special interest SET (science, engineering, and technology) 4-H clubs, themed sequential, after-school programming, and day or overnight camps. The target audience for <i>Scientific Inquiry</i> is youth ages nine to thirteen. These activities are designed to introduce youth to the process of scientific inquiry and to help develop the following inquiry skills; predicting; hypothesizing; inferring; defining; controlling and manipulating variables in experimentation; interpreting, analyzing and evaluating data.</p> <p>SOLs: Science 4.1a,e, 5.1e, 6.1a,h</p>
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 <p><b>Virginia 4-H School Enrichment</b></p> <p><b>ELECTRICITY</b></p> <p>Introduction          Lesson 1: Magnetic Attraction          Lesson 2: The Magnetic Field Around the Earth          Lesson 3: Static Electricity          Lesson 4: Current Electricity and Circuit Building          Lesson 5: Conductors and Insulators          Lesson 6: Circuit Building—Series and Parallel Circuits          Lesson 7: Electromagnets          Lesson 8: Electrical Safety</p> <p><b>Acknowledgments:</b>          A special thank-you to the following individuals for their vision, hard work and dedication in the design, development, and implementation of the Virginia 4-H In-School and School Enrichment Curriculum:          Science, Engineering, and Technology Curriculum Committee:          Virginia Power Service Committee:          Kathleen Jamison — Virginia Tech          Linda Buchanan — Virginia Tech          Tim Fisher PhD — Virginia Tech          Elizabeth Gunn — Virginia Tech</p> <p>Virginia Cooperative Extension          Revised 2009      Publication 388-800</p> <p>VirginiaTech          toward the Future</p>	<p><b>Virginia 4-H School Enrichment: Electricity (388-800)</b></p> <p>Grades: 4-7</p> <p>Available online at: <a href="http://pubs.ext.vt.edu/388/388-800/388-800.pdf">http://pubs.ext.vt.edu/388/388-800/388-800.pdf</a></p> <p><i>Electric Energy</i> is a school-enrichment curriculum that includes activities that can be used in a variety of settings including the following: in-school, special interest SET (science, engineering, and technology) 4-H clubs, themed sequential, after-school programming, and day or overnight camps. The target audience for <i>Electric Energy</i> is youth ages nine to thirteen. Although focused on Virginia 4<sup>th</sup> grad Standards of Learning, it has been used with other grade level audiences. It is used with an accompanying kit for teachers' in-service training. Youth will investigate and understand the characteristics of electricity, which includes the nature of electricity (voltage, ampere, resistance, conductors, and insulators), circuits (open/closed, parallel/series), magnetism and magnetic fields, static electricity, and historical contribution in understanding electricity.</p> <p>SOLs: Science 4.1a,b,c,f,g,h, 4.3</p>
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# Free or Inexpensive

## Curriculum/Record Books for curricular areas in Virginia that need extra support!

This is a work in progress; please continue to send information to the Curriculum and Learning Specialist as you find additional materials.

General Project Support: (IA) <http://www.extension.iastate.edu/4h/projects/hotsheets/4-HHotSheets-All.pdf>

### Animal Science

#### Dairy

<http://downloads.cas.psu.edu/4H/AniProjRecBegMembers.pdf>

<http://downloads.cas.psu.edu/4H/4HDairyRecord20.pdf>

<http://downloads.cas.psu.edu/4H/4HIndividualDairyAnimalLifetimeRecord.pdf>

11506 Dairy Heifer

<http://4h.uwex.edu/pubs/pubdetails.cfm?publicationid=55>

<http://4h.uwex.edu/pubs/pubdetails.cfm?publicationid=59>

11507 Dairy Cow

11511 Dairy Group Activity

#### Goat

11801 Breeding Goat

Activity Sheets (to accompany a cost (\$) National 4-H Goat

Curriculum): <http://www1.extension.umn.edu/youth/mn4-H/projects/animal-science/goat/index.html>

Activity Sheets: <http://www.utextension.utk.edu/4H/projects/activities/Goat-W050.pdf>

Record Book: [www.colorado4h.org/project\\_resources/erecords/BreedingGoatsOnly.doc](http://www.colorado4h.org/project_resources/erecords/BreedingGoatsOnly.doc)

Record Book: <http://www.ansci.cornell.edu/4H/meatgoats/mgdoerecord.htm>

12001 Dairy Goat

<http://downloads.cas.psu.edu/4h/4HMarketGoat.pdf>

<http://downloads.cas.psu.edu/4H/4HDairyGoatHerdRecordBook.pdf>

<http://anrcatalog.ucdavis.edu/pdf/8160.pdf>

12004 Fiber Goat

Minimal Cost NY: [http://goatconnection.com/articles/publish/article\\_160.shtml](http://goatconnection.com/articles/publish/article_160.shtml)

12506 Market Goat

12509 Meat Goat

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/goat/goat7-8.pdf>\*

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/goat/goat5-6.pdf>\*

\*Cloverbuds may not be in sole control of leading a large show animal in Virginia

## Llamas

14002 Llama

<http://www.extension.purdue.edu/extmedia/4H/4-H-999-W.pdf>

<http://www1.extension.umn.edu/youth/mn4-H/projects/docs/Lama-Showmanship-Curriculum.pdf>

14004 Alpaca

<http://www.extension.purdue.edu/extmedia/4H/4-H-999-W.pdf>

## Poultry

15502 Poultry – Raising & Rearing (9-19)

<http://downloads.cas.psu.edu/4H/BroodRearBabyChick.pdf>

<http://downloads.cas.psu.edu/4H/BackyardPouCareMG.pdf>

15512 Embryology

## Pets and Companion Animals

### Cat

16004 Cat (9-19)

<http://downloads.cas.psu.edu/4H/DogCatProjRecord.pdf>

### Dog

16204 Dog Obedience (9-19)

<http://4h.uwex.edu/pubs/pubdetails.cfm?publicationid=14>

<http://4h.uwex.edu/pubs/pubdetails.cfm?publicationid=15>

<http://www1.extension.umn.edu/youth/mn4-H/projects/docs/dog-obed-rules.pdf>

<http://www.extension.purdue.edu/extmedia/4H/4-H-1009-W.pdf>

16205 Dog Showing (9-19)

<http://www1.extension.umn.edu/youth/mn4-H/projects/docs/dog-showmanship-rules.pdf>

<http://www.extension.purdue.edu/extmedia/4H/4-H-716-W.pdf>

16206 Dog Agility (9-19)

<http://www1.extension.umn.edu/youth/mn4-h/projects/docs/dog-agility-rules.pdf>

16207 Dog Care (9-19)

<http://4h.uwex.edu/pubs/showdoc.cfm?documentid=30492>

<http://4h.uwex.edu/pubs/showdoc.cfm?documentid=30491>

## Rabbit

<http://downloads.cas.psu.edu/4H/RabbitCavyProjRec.pdf>

<http://anrcatalog.ucdavis.edu/pdf/8389.pdf>

[http://texas4h.tamu.edu/library/files/publications\\_resources\\_rabbit\\_project\\_reference\\_manual.pdf](http://texas4h.tamu.edu/library/files/publications_resources_rabbit_project_reference_manual.pdf)

16804 Rabbit (Commercial) (9-19)

- 16805 Rabbit (Show) (9-19)
- 16806 Rabbit (Breeding) (9-19)
- 16807 Rabbit National 4-H (9-19)

### Sheep

- 17002 Market Lamb (9-19)

<http://downloads.cas.psu.edu/4H/4HMarketProjectLamb.pdf>

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/sheep/sheep5-6.pdf>

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/sheep/sheep7-8.pdf>

## **Citizenship**

### Citizenship

- 30015 Civic Engagement

- 30016 Community Service

- 30017 Cultural/Folk Connections

WI (\$) <http://learningstore.uwex.edu/Folk-Arts-Leader-Guide-P845C160.aspx>

## **Communications/Expressive Arts**

### Expressive Arts

- 35001 Share-the-Fun (9-19)

- 35019 Storytelling (9-19)

Activity Sheet: [http://www.aces.edu/fourh/docs/contest/sr/Have\\_I\\_Got\\_A\\_Story\\_SR.pdf](http://www.aces.edu/fourh/docs/contest/sr/Have_I_Got_A_Story_SR.pdf)

### Creative Arts

- 36002 Photography

- 36003 Visual Arts

## **Family and Consumer Sciences**

### Clothing and Textiles

- 40021 Clothing

<http://downloads.cas.psu.edu/4H/SewMuchFun.pdf>

<http://downloads.cas.psu.edu/4H/StitchByStitch.pdf>

<http://downloads.cas.psu.edu/4H/Knits.pdf>

<http://downloads.cas.psu.edu/4H/Coordinates.pdf>

<http://downloads.cas.psu.edu/4H/Tailoring.pdf>

<http://downloads.cas.psu.edu/4H/separates.pdf>

<http://downloads.cas.psu.edu/4H/Design.pdf>

## **Foods, Nutrition, and Health**

### Health

- 47011 Health (9-19)

## **Natural Resources and Environmental Education**

### Environmental Sciences

- 61006 Environmental Sciences (9-19)

[http://www.extension.purdue.edu/extmedia/4H/4H\\_949w\\_web.pdf](http://www.extension.purdue.edu/extmedia/4H/4H_949w_web.pdf)

## Fishing

62005 Fishing (9-19)

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/wildlife/9-12-fishing.pdf>

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/wildlife/13-15-sportsman.pdf>

<http://www.ces.ncsu.edu/depts/fourh/old/teachers/enrichment/wildlife/13-15-pondman.pdf>

## Forestry

63007 American Chestnut Restoration (9-19)

## **Plant and Soil Science**

### Land Appreciation and Soils

70065 School and Community Gardens

71002 Geosciences

71004 Soil Judging

## **Science, Engineering, and Technology**

### Aerospace

75006 Aerospace (9-19)

### Energy/Alternative Energy

75305 Alternative Energy

### Computer

76004 Computers (9-19)

### Engineering Sciences

#### *Small Engines*

78101 Small Engines (9-19)

WGBH: [http://www.theworks.org/fb/teachers/teacher\\_resources.html](http://www.theworks.org/fb/teachers/teacher_resources.html)

Time to Invent Club: <http://sites.google.com/site/rogerscoolopportunities/home/other-opportunities/timetoinventclub-wgbh>

### *Woodworking*

78201 Woodworking (9-19)

### Science Inquiry

79501 Science Inquiry

4-H project Activity Sheets:

TN: <http://www.utextension.utk.edu/4h/projects/actsheets.htm>

(In development to provide activities at different levels of experience)

IA: <http://www.extension.iastate.edu/4H/projects.php>

Descriptions:

WI Folk Art: Explore traditional folk arts while learning more about your family and community. Folk arts can range from storytelling to polka dancing, egg decorating to basket making, and hair braiding to doll making.

Folk Arts Leader's Guide NCR 534

\$This book offers a unique avenue to appreciate cultural diversity and respect for traditional ways of life. The book's four units describe folk arts and encourage participants to consider their communities' folk arts and their families' traditions. Produced by the University of Nebraska, available through National 4-H.