



Chester County 4-H School Enrichment Programs



4-H and Schools: A Great Partnership!

4-H is a youth development program of Penn State Cooperative Extension.

It is a nonformal education program for youth between the ages of 8 and 19.

4-H projects are offered to youth through community clubs, project clubs, and special interest groups, and as enrichment to school curricula. Projects are based on research and many help support Pennsylvania and National Academic Standards in science, environmental education, geography, family and consumer sciences, health, arts education, and more!

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PENN STATE COOPERATIVE EXTENSION
Chester County 4-H
School Enrichment Program

Table of Contents

Careers, Work and Business Education	2
Computers	3
Environment and Ecology.....	3
Electricity	6
Farming	6
Food and Nutrition.....	6
Gardening and Plant Science	7
Health and Safety	8
Inter-Generational	10
Leadership.....	11
Life Skills.....	11
Life Science	12
Space Exploration	13
Visual & Theatre Arts.....	13
Group Enrollment/Materials Order Form	15

CAREERS, WORK AND BUSINESS EDUCATION

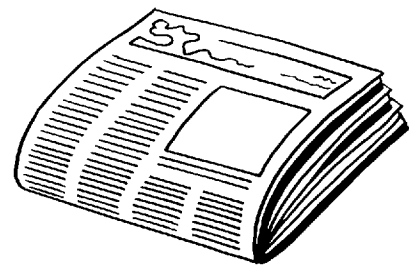
Wild Over Work!

Workforce preparation begins long before youth get their first job. Preparation involves a series of learning experiences that start in childhood and continue through adulthood. The skills addressed and activities promoted in “Wild Over Work” (WOW) are competencies outlined by the U.S. Department of Labor in *What Work Requires of Schools*. Wow skills can help children succeed at everything they do, including schoolwork. Project material consists of a helper’s (Teacher) Guide and Workforce Preparation Activities for Grades K-6.

Get Ready, Get Set, Get a Job

This project is designed to help youth acquire the skills necessary to secure a job including completing an application, preparing a resume, writing a cover letter and interviewing for a job.

Suggested age: 15-18



My Future Is What I Make It

Youth will explore careers, develop awareness of own capabilities, prepare to make wiser career decisions and follow logical steps in selecting their career through this project.

Suggested age: 13-19

Learn and Earn for Fun and Profit

Learn and Earn is an educational program designed to teach youth life skills by directing them through a business venture. The goal of the program is youth economic empowerment. The money that the youth earn through the project can be split among the participants, or used for and agreed upon group activity. Participants supply the business ideas; project materials provide the educational support. The *Learn and Earn* project materials include a member's guide, a teacher's guide and a project record book.

Suggested age: 12-18

***New* Financial Champions**

Do I really need this new CD? Can I afford it? Is this purchase part of my spending plan? Do I only want this CD because I saw an ad? Youth can become financial champions and learn how to answer these questions and more. This curriculum teaches about needs and wants, money personalities and values, goal-setting, communication, ways to use and save money, the benefits and drawbacks of credit, advertising influences, consumer decision making and how to select

financial services. Youth can complete the activities in the two youth guides independently. The Helper's Guide contains group icebreakers, activities and meeting suggestions. An interactive web-based game, "The Financial Champions Academy" is available to reinforce the concepts taught in the curriculum.

Target age: 13 -16 year olds

COMPUTERS

Computer Mysteries

It is an exciting multimedia curriculum for the new millennium. Using a combination of interactive CD and Web-based activities, kids and teenagers alike will find *Computer Mysteries* challenging and fun. Youth will learn how to interact with computers, use a variety of software, add hardware, and take advantage of information on the Internet. The activities will help youths develop the skills to confidently use their computer to design professional-looking printed materials, animated presentations, and interactive Web sites.

- **Level 1 Booting Up: Interacting with Computers** is designed for beginners with little or no experience, just access to a computer with a CD drive. Activities are included both in the manual and on the accompanying CD.
- **Level 2 Adding On: Hardware and Software Magic** is designed for users who have some basic computer skills. This level has activities both in the manual and on the Web site.
- **Level 3 Reaching Beyond: The Advanced User** is for the more skilled user. Level 3 has both activities in the manual and on the Web site.

ENVIRONMENT AND ECOLOGY

Adopt-A-Tree

This is a program that will help students become more aware of the need to protect our environment. They will be able to participate in outdoor learning through the identification of trees, leaves, and determining the age of trees. Students will learn record keeping and will utilize language arts skills in telling the story of "their tree." They will be able to do leaf prints and bark rubbing.

Suggested age: 8 - 13

Insectaganza of Excitement Series - Entomology

This series includes three levels - *Creepy Crawlies*, *What's Bugging You?* *Dragons, Houses and Other Flies*. They have been designed to be developmentally appropriate for grades 3-5, 6-8, and 9-12 respectively but may be used by youth in any grade based on their skills and expertise. Each of the guides encourages youth to learn more about entomology while developing important life skills.



New

Join our Pest Patrol - IPM

This project is an introduction to Integrated Pest Management (IPM). Concepts covered include:

- Distinguishing weed and insect pests from beneficial plants and insects.
- Understanding why humans want to manage pests.
- Recognizing common pests in our homes, gardens, and neighborhoods.
- Choosing the least toxic ways to manage pests.
- Safeguarding against pesticide risks.

Suggested Age- 3rd and 4th grades, but adaptable and everyone can benefit from the concepts covered.

Endangered Wildlife

In the Endangered Wildlife Unit, you will learn all about endangered species plants and animals in danger of dying out forever.

Suggested Age: 12 – 18

Tree Tops

Tree basics, ecological cycles, soil, human needs, ecological roles, forest systems, forest succession, and tree identification are covered in this project. Students learn about the forest as a community while completing activities such as tree cavity or rotten log study, critter searches, drawing, forest touch box, and more!

Trees + Me = Forestry

This project provides students an introduction to forest resources. Students will learn how trees grow, tree identification, and the relationship of forests and their conservation. The project suggests forestry related careers and is filled with suggestions for hands on activities for the students.

Suggested age: 10 - 14

Water Conservation – Water Project Unit 1

This booklet is designed to teach students about using water wisely. By completing the activities in this booklet, students will learn how and why they should use water wisely in and around their home. They will discover how water is important in our lives. They will see how people waste water. They'll also practice some water conservation methods that will help them learn to use water wisely.

Incredible Water – Water Project Unit 2

In this unit, the Water Lion will guide you through activities about the properties of water. You'll also learn about the water cycle, which makes all life on Earth possible. Come along as we learn about what makes water special, why we can't live without it, and how it moves around our world!

Suggested age: 8-11. It addresses several portions of Pennsylvania's Academic Standards for Environment and Ecology (4.1.4, 4.1.7, and 4.2.4) and Science and Technology (3.4.4, 3.5.4-C, 3.5.4-D, and 3.5.7-D).

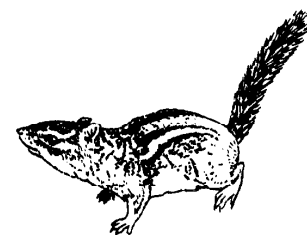
Water Quality Matters – Water Project Unit 3

Your student has probably heard the term "water quality" before, but can they define it? That's the topic of this book. They will learn about water quality and how it is measured and regulated. They will learn about various rivers, creeks, and streams in Pennsylvania have different water quality standards. Then they will learn about the major water quality problems in Pennsylvania. They will wrap up this book with an activity that allows them to use aquatic insects to determine the health of a stream or body of water.

Suggested age: 12-16. It addresses several portions of Pennsylvania's Academic Standards for Environment and Ecology (4.1.7 and 4.1.10).

Wildlife is All Around Us

This wildlife series, consisting of five parts, is divided into an introductory book- The Wildlife Detective, plus one book for each of the four seasons. Members will have the opportunity to become familiar with some of the habits and characteristics of wildlife and be able to identify different animals. These projects are activity oriented and allow the students to explore the subject through a variety of experiences. There are lessons on making your own bird feeder, collecting nesting materials and opportunities for scavenger hunts and field trips.



Suggested age: 8-13

Worm Bin Composting

The Chester County 4-H program works in cooperation with the Chester County Health Department's Solid Waste Recycling Department to deliver the 4-H "Worms Eat Our Garbage" project.

4-H youths learn about the decomposition of garbage, "non meat disposables". Youth learn about the job of our red wiggler worm in the recycling process. Youth observe the living ecosystem and feel a sense of accomplishment in creating and maintaining their bin. Worm

composting is a global project and there are many good resources on the WEB to support this project.

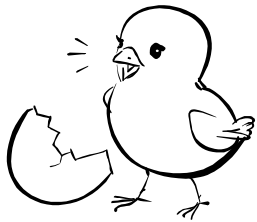
ELECTRICITY

Electricity

Electricity is everywhere! Understanding the science behind electricity is important for everyone at any age. This project consists of a series of four project books with hands-on activities leading to an understanding of how electricity works. Play electric pyramid or electric bingo while exploring general electrical concepts and skills.

- Unit 1 *Magic of Electricity* corresponds to the Academic Standards for 4th Grade
- Unit 2 *Investigating Electricity* corresponds to 7th Grade Academic Standards
- Unit 4 *Entering Electronics* corresponds to 10th Grade Academic Standards

FARMING



Embryology

See description under “Life Science” Section, page 13

FOOD AND NUTRITION

Adventures with Food

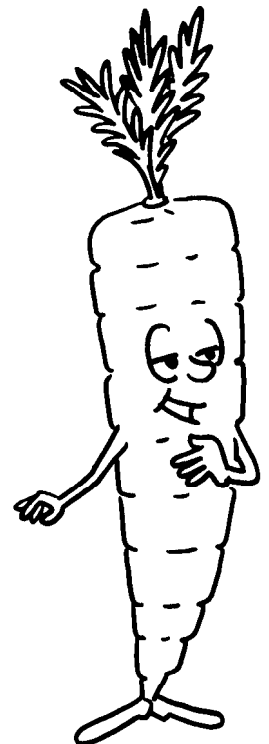
Everyone enjoys good food, and it is fun to learn to cook. The *Adventures with Food* book consists of nine easy lessons in which students will learn to measure and follow recipes. The recipes are for simple, nutritious drinks and snacks. Each lesson contains several recipes, you can make them all or choose one or two to try. Students will gain experience in food shopping, following kitchen safety rules and serving food, which they have prepared.

Suggested age: 8 -11

Equipment Needed: Recipe ingredients, measuring cups, mixing bowls, mixing spoons.

Food and Fitness for Fun

If your class is like most kids, they probably like to eat and are probably pretty active. But maybe there are questions they have about food and nutrition.



- Is it hard to learn to cook?
- Are there foods I can eat to help make my muscles stronger?
- Do I have to spend a lot of money to eat food that's good for me?

This project book will help students find the answers to those questions and more. *Food and Fitness for Fun* is a beginning level food and nutrition project. It will fit together cooking, nutrition, food and equipment safety, consumer and management skills, and fitness.

Suggested age: 9 -11

Other Food and Nutrition Resources are available through the Chester County 4-H program. Call to inquire about other projects.

GARDENING AND PLANT SCIENCE

Plant Science - Unit One: Meet the Plants

Meet the Plants is an introduction to plant science designed to promote personal development as well as illustrate the important relationship between plants and people. It looks at what plants are, their parts, how they are used, how they grow, and how they propagate.

Suggested age: 8-10

Equipment needed: growing containers, sweet potatoes, celery, food coloring, samples of seeds from fruit, potting mix, narcissus bulbs, and annual seed packets.



Plant Science - Unit Two: Indoor Gardening

Students will study some of the more common houseplants, their care, propagation techniques, transplanting, and pest management.

Suggested age: 11-13

Equipment needed: some common houseplants for separating and re-potting, paring knives, containers for planting, soluble or liquid fertilizer, air temperature thermometer, seed packets, potting soil mix.

Plant Science - Unit Three

Unit Three Plant Science projects are designed for older youth. These projects include sections on botany, soils, environment, horticulture, pests and diseases and crops. The projects available

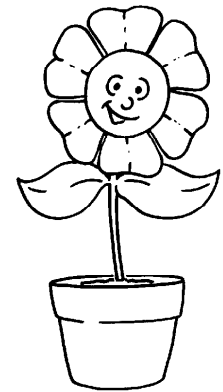
are: *Vegetables, Perennials, Hydroponics, Herbs, Trees and Shrubs, Annual Flowers, and House Plants.*

Suggested age: 13-19

4-H Plant Fun

This project consists of 13 basic pencil and paper activities in plant science to introduce youth children to plants.

Suggested age: 5-7



***New* Gardening Series**

A – See Them Sprout: Youth learn to plan a garden as well as plant the seeds, use garden tools safely and harvest crops.

B – Get Growing: Youth use transplants in a garden, start seeds indoors, observe how plants respond to light, and grow new plants from plant parts.

C – Take Your Pick: Youth learn to test and improve soil, extend the growing season, cross pollinate flowers and assist others in garden projects.

D – Growing Profits: Youth explore double crop planting methods, the effects of pollution on plants, plant genetics, pest management and starting a plant business.

HEALTH AND SAFETY

Discovering Me!

“Discovering Me” helps adolescents better understand who they are and why they think and feel the way they do. It also teaches decision-making and problem-solving skills that prepare them for responsible adulthood.

Suggested age: 10-13

Health...It's Your Choice

This curriculum is designed to assist youth in making informed lifestyle choices. The projects are designed around six wellness factors, body motion, circle of friends, brainpower, express yourself, dream on, and my world. Wellness deals with the total person space-mind, body, and spirit-and all parts of his or her life. The National health Education Standards are supported through the activities and information in these projects.

Kids in Control

This project contains four lessons designed for youth who may care for themselves for short periods of time while a parent is outside making a trip to the store, as well as situations where youth are responsible for themselves on a regular, daily basis.

Suggested age: 8-12

On My Own and OK (student and parent versions available)

This is a program for school-age children who regularly spend time alone during the day without adult supervision. The program is designed to help the child develop competence and confidence about being on their own. This program consists of six lessons.

Suggested age: any school-age child

What to do...at Home (Better Kid Care)

This is a series of activities that children can do when at home to prevent boredom. The project is designed to keep children from getting lonely. Activities are designed for younger and older elementary age children.

Suggested age: 8-13.

Fire Safety

Youth learn the nature of fire, fire causes, and how to report fire. They also become more knowledgeable about their own community's fire protection system. There are three units available. The project can be used to enhance or support fire prevention program offered by local fire companies.

Suggested age: 8 - 13

Babysitting is A Caring Job

Students learn to become responsible, caring babysitters by understanding children's development characteristics and play needs, and by learning how to react in case of emergency. Each member will have the opportunity to make their own babysitting kit designed for a specific age group, including books, toys, games and homemade items for babysitting.

This program is appropriate for school or after school club time. Contact the 4-H Office if you would like our instructor to teach a



Babysitting course at your facility. The cost for a 6- 8-hour program is \$15.00 per person if we teach; \$20.00 a class if you teach.

Suggested Age: 11 – 15

Bicycle Adventures

Ready to help your students see the world's colors whiz by and feel the wind in their face? Then it's time to take off with *Bicycle Adventures*. Students will discover the joy of riding a bicycle, while learning to do it safely.

This project consists of three levels:

Level 1 is designed for children 5- 8 years old and is designed to help students learn personal safety and decision making skills related to bike safety.

Level 2 is designed for children 9-12 years old. The chapters include Bicycle Maintenance and Repair and On-the-Road Skills for staying safe. The chapter on maintenance addressed identifying parts of the bicycle, checking air pressure, and adjusting handlebars, seats and handbrakes.

Level 3 is designed for Teens 13 –15 years old. The chapters deal with gathering information to purchase a bike, fixing flats, chains and brake maintenance. This continues to emphasize personal safety.

INTER-GENERATIONAL

Generation Celebration

This project is designed to help young people and seniors enjoy and learn from each other. Young people will become aware of their attitudes about aging and learn how the media affects their attitudes. They will experience how aging affects the senses and will become sensitive to need of others. Youth are encouraged to spend time with an older person. The program is composed of six lessons which involve group activities and activities to be done with an older person. This project is a perfect tool to use in conjunction with a community outreach program with seniors. A lending box of activities is available to allow students to experience hands-on what it's like to be old.

Suggested age: appropriate for all ages

COST: \$5.00 if using our lending box of activities; free if you assemble your own materials for activities.

LEADERSHIP

Leadership: Skills You Never Outgrow

This project will help young people gain leadership skills through experiences and learning in each of seven leadership skill areas: understanding self, communicating, getting along with others, learning to learn, making decisions, and managing and working with groups. Everyone needs to learn leadership skills and they are easily applied to every day living. Unit 1 is geared for ages 8-11 and can be used for two to three years in a row, in order to complete all the activities. Unit 2 is suggested for junior or senior high and it helps members to build their individual leadership skills. It is recommended for teens that have not completed Unit 1. Unit 3 is geared toward 15-17 year olds and its orientation is more toward groups. Unit 4 is involved with advanced leadership skills and more experienced teen leaders. Its emphasis is on activities, which the member carries out with other people. Projects consist of several activities and need not be used in their entirety.

Suggested age: 8-18, depending on unit

Leadership Skill Development

Teen members, ages 12-18, have the opportunity to learn leadership skills and problem solving techniques through a variety of fun activities. Youth are encouraged to set and achieve goals, make important decisions, manage their time, become involved in 4-H or community activities, and develop communication skills.

LIFE SKILLS

The Rent Event

The Rent Event assists young people in learning about the process, costs, frustrations, and satisfactions of renting the first place of their own. Students are guided through the decision-making process of finding, selecting, furnishing and maintaining a room or an apartment. They will understand the basic terms of a lease along with things to watch out for in a lease. It provides guidelines for selection of an apartment and a checklist for comparing different units. The costs of renting -- including utilities, security deposits, and renter's insurance -- are explained. Suggestions are provided for inexpensive ways of furnishing the apartment and are illustrated in a slide set which accompanies the project. Basic information on care and maintenance of the apartment are also included. Lastly, pointers are given for roommate selection.

Suggested age: 16 - 18

Talking with TJ: Teamwork Series or Conflict Resolution Series

Talking with TJ is an educational program designed to teach children how to get along and how to get things done in a group. The program combines video stories with discussions and fun activities to teach pro-social skills. The program helps prepare children to develop positive relationships with peers in a culturally diverse setting. Included in the packet is a video tape on How to Run the Program and to give you a good feeling about the overall program. Talking with TJ has been developed in partnership with Boys and Girls Clubs of America, Girl Scouts of the USA, and the 4-H Youth Development Program.



Suggested age: 7 - 10

LIFE SCIENCE

Embryology

Embryology is an exciting, hands-on project that enables students to learn the stages of embryonic development, to observe the hatch and to care for live chicks. The project is two weeks in length, Tuesday through Monday for the hatching, and the remainder of week #2 is spent caring for the baby chicks. (*A four-week program is also available) Daily supervision and care is required. Chicks become the responsibility of the 4-H classroom for securing a "home" following completion of the project; the 4-H office can assist in finding a home for the chick, but these arrangements should be made prior to the commencement of the project. An introductory lesson to explain the project can be given by 4-H staff prior to or on the day eggs are delivered, and more detailed instructions can be arranged as well as teacher training. Arrangement must be made at least three week in advance if you wish to participate in this program. Program fills quickly especially in the spring, so plan ahead.

Suggested age: 8-13

Equipment needed: aquarium or large box, heat light (work lamp), and slide or overhead projector if you plan to candle the eggs.

COST: \$55 per class. Fee includes use of incubator, 12 -15 day old embryonated eggs*, use of videotape, member and leaders manuals, food and bedding.

* You can get fertile eggs which will need to be incubated for 21 days instead of the 15 day incubated eggs.

*****It is the responsibility of the teacher to pick up and return cleaned equipment.*****

SPACE EXPLORATION

Rockets Away

Rockets Away is an educational program designed to teach students about the science of rocketry. The knowledge and concepts acquired through this program are further reinforced through application by actually designing, building and launching a real 2-liter bottle rocket. Classes can borrow a lending kit filled with most of the supplies needed to complete the project. Teachers can be trained to launch the rockets, or can arrange for a 4-H staff member to help construct and launch the rockets.

Cost: \$20 for books and use of launcher if constructing bottle rockets
\$6.00/student if purchasing model rockets from the 4-H office

Model rockets can also be constructed and used to teach about gravity, force and aerodynamics. This project supports the PA Academic Standards for 7th Grade.

AeroSpace Adventure Series

There are five books in the 4-H Aerospace Adventures series arranged in increasing skill level and familiarity with Aerospace. Each book has several activities with a mixture of themes, the three most prevalent being: Airplanes, Flight or Rockets.

There is a helper's (teacher's) guide and website available to:

- explain the science and concepts of each theme
- explain how the activities in the books relate to the science and concepts of the theme
- provide information for further study (links, books and videos)

Visual & Theatre Arts

A Palette of Fun with Arts and Crafts (A Helpers Guide for Children's Art Activities)

The units in *A Palette of Fun* focus on seven art topics. Each topic has its own palette with connections to eight other learning experiences.

Children learn more when exposed to the same ideas in a variety of ways. You can create an experience unique to your group by mixing and matching the connections to the activity just as you would mix and match colors. The result will be a multi-colored picture painted with every color on the palette. This leader's guide follows the National Standards for Education in the Arts.

Grades K-6

Advanced Arts Adventures

Portfolio Pathways contains youth art activities with helper information on painting, printing and graphic design.

Sketchbook Crossroads contains youth art activities with helper information on drawing, fiber and sculpture.

Theatre Arts Adventures

This project consists of five activity guides on the theatre arts of acting, puppetry, and stagecraft. Many of the National Standards for Arts Education are taught through various activities. Students are encouraged to keep a portfolio to document their learning. Join the show and let your student's journey into their imaginations!

Penn State encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Toni Stuetz at 610-696-3500 in advance of your participation or visit.

This publication is available in alternative media on request.

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