

## Supporting School-Age Accreditation and Quality Programming

This curriculum is not designed for school-age youth. The 4-H *Gardening: Let's Get Growing* project would be more appropriate for this age group.

## Essential Elements of 4-H Youth Development

Youth involved in 4-H know they are cared about and feel a sense of **BELONGING**; they exercise **INDEPENDENCE** by using decision-making and action to influence people and events; they develop a sense of **MASTERY** by learning skills needed in making positive career and life choices; and they experience **GENEROSITY** by helping others through community service. These elements support the Army Youth Development Components of Belonging, Success, Service and Independence.



## Ideas! Ideas! Ideas!

Many of the activities in *Down-to-Earth* could become school science projects or 4-H fair projects. Older 4-Hers should be invited to make presentations about projects they have completed. A list of related careers is on **page 129**. People working in those jobs might be guest speakers, host field trips, invite youth to do job shadowing or know of internships or summer job opportunities.

## Opportunities for Youth Leadership and Development and Cross-age Teaching



Encourage youth to explore gardening projects in their school or community. In many communities the schools and other civic or faith-based facilities need young leaders who can work and teach children or seniors how to take better care of public spaces.



## Providing Quality Middle School and Teen Programming

This is a perfect project for Middle School youth. Designed for this age group, the guide includes group work and life skill development that the youth are really interested in. The career exploration projects are also important for this age.



## Summary

*Down-to-Earth* is the right project for Middle School youth who want to be active, spend time outdoors and wants to learn about gardening at a time when becoming "Green" is more important than ever. The guide provides what the adult leader needs to make this project fun and educational.

# THE Army 4-H EXPRESS GUIDE TO

## Down-to-Earth Enriching Learning Through Gardening



*Down-to-Earth, Enriching Learning Through Gardening* is a self-contained gardening-oriented science curriculum for children grades 6-8. Youth and adults will have a great experience working together to create a garden site and experience the joy of gardening. Together they will work in teams and grow plants they can eat and share with friends and family members. Youth will have fun learning to use the scientific method, to make decisions, and to develop numerous life skills.

## Project Goals

*Down-to-Earth, Enriching Learning Through Gardening* is a self-contained gardening-oriented science curriculum for youth grades 6-8. Youth and adults will have a great experience working together to create a garden site and experience the joy of gardening. Together they will work in teams and grow plants they can eat and share with friends and family members. Youth will have fun learning to use the scientific method, to make decisions, and to develop numerous life skills.

## Four Fun Activities

**1** It will be tempting to start with planting but to insure success there are some things to do first. Since youth of this age are curious it might make sense to start by learning about and applying the Scientific Method and using the five senses. The **Scientific Method, Pages 9-14**, of the guide provide suggestions on what to read or explain to the youth. Remember to keep it active and interesting. Use the quiz and work together to find the answers.

**2** Stalks of fresh celery, food coloring, salt and sugar show how plants transport nutrients with results seen in 24-48 hours. Don't forget to use the scientific method and give the children a chance to predict what will happen. The directions for this activity are found in, **Going Up, page 51-53**, of the guide.

**3** Where there are plants there are also weeds. This activity helps show how they live together and requires an area big enough for an imaginary garden with room for everyone to run around. It can be indoors or outdoors. Children will be divided into two equal groups and assigned to be either weeds or vegetables. The goal is for vegetables and weeds to compete for the necessary nutrients. There are just a few rules and lots of action and lessons to learn. Instructions are included in **A Balancing Act, page 48-50**.

**4** Here's a chance for youth to be creative and show off their acting talents while learning some valuable information about the importance of using sun protection. The group will divide into three teams and each team will create and present a commercial about sun safety. This activity, **The Dark Side of the Sun**, can be found on **page 99-102**.



## Experiential Learning

Experiential Learning engages children and youth while they learn, share, and grow through their 4-H experiences. With an adult as the coach, the first step is "doing" or exploring. Next, youth share what they did and discuss the experience with their peers. After they've identified the skills and knowledge gained, help them determine how to apply these to other situations in their lives. Each activity in *Down-to-Earth* includes questions for each of the Experiential Learning steps.



## Project Activity Guides and Target Age Groups

There is one project activity guide designed for youth, ages 9-12, working in small groups. The material in the guide is arranged to be used sequentially but it is flexible enough for teachers or other adults to rearrange the order of the activities. Useful planning tools can be found on the *Down-to-Earth* web site, <http://www.ag.ncat.edu/dte>. There is a short quiz on the web site that helps identify what adults and youth know about gardening and the scientific method. This should help to create more interest in the project and the quiz can be used again after about 10 weeks to show what everyone has learned.



## Life Skills

"Skills that help an individual to be successful in living a productive and satisfying life" are identified as Life Skills (Hendricks, 1996). Some of the life skills in this project include teamwork, decision making, critical thinking, communication, record keeping, organizing, wise use of resources, personal safety, problem solving and planning. A chart on **page 140** shows the skills each activity targets.

## Related 4-H Projects

There are likely a number of youth and adult guides in the Trainer's library that relate to *Down-to-Earth*. Visit <http://www.4-hmall.org/> for additional ideas or contact the Extension Educator or USDA Army Youth Development Program Specialist. Some related projects are *Entomology, Butterfly Wings, Junior Master Gardener, the Science Discovery Series and Gardening*.

## Integrating Technology

There are many research and planning activities that can be done on the computer. For example, **Your ID Please, pages 64-66**, asks youth to create an insect identification guide. The pictures and information can be found online. Tracking the progress of plant growth can be done using a computer journal and can include digital pictures. Career exploration can begin with an Internet job search.

## Character Connection

There are many ways to show good character. *Down-to-Earth* provides an opportunity to discuss and model:

- Respect and Responsibility for the earth in using environmentally friendly ways of growing,
- Caring for others as teams form and share work,
- Citizenship by helping others learn about effective gardening practices and sharing the produce grown.

## Linking to the Army's Four Service Areas and Baseline Programming

### Sports, Fitness and Health Options

Working outdoors in a garden is definitely a fitness activity that requires digging, raking, carrying heavy bags of soil or compost and other materials. Consider this exercise, not work. **You're Safe, pages 83-93**, describes how safe handling of farm and garden chemicals can protect the health of the gardener and the consumer. Lessons about sun protection, **Don't Get Burned**, are on **pages 97-101**.

### Arts, Recreation and Leisure Activities

Gardening is a leisure activity for many people. It's never too early to develop an interest that will last a lifetime and can be enjoyed with family and friends. What is planted and how they are arranged is an art experience. The plants can be the subjects for art projects such as photography, painting and flower arranging.

### Life Skills, Citizenship, and Leadership Opportunities

*Down-to-Earth* emphasizes the group activities required to have successful gardens. Group work requires life skills and an opportunity to develop leadership abilities while becoming an active citizen of the community. **The Dark Side of the Sun, pages 99-101**, encourages youth to use their leadership skills to "sell" the importance of sun protection to others.

### Academic Support, Mentoring, and Intervention Services

*Down-to-Earth* provides many academic experiences through hands-on science and math activities. Older youth can participate in cross-age teaching and mentor future gardeners. Children and youth who become interested in the project may find themselves spending more time in the garden and less being couch potatoes or engaging in risky behavior. Their interest may also lead them to careers in agriculture or other related fields. **Future Scientists, pages 125-136**, provides activities in career exploration.

## Community Service/Service Learning Opportunities



Since the garden created in *Down-to-Earth* will probably be in a public space this could be considered one big service-learning opportunity. Or, provide soil testing for the community using **Soil Sleuths, pages 36-38**. Hold garden parties to celebrate the garden and the youth progress. Sharing the products of the garden can also be considered service.

