

BRADFORD COUNTY CONSERVATION DISTRICT
STOLL NATURAL RESOURCE CENTER
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ENVIRONMENTAL EDUCATORS NETWORK

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2010 POSTER CONTEST Theme



Each of us can be good stewards of our natural resources at our home and in our communities. When we think about protecting and managing our natural resources we can provide healthy habitats for the ecosystems on our planet. Each of us can make a difference by starting in our own backyard, our school or in our community. Conservation is careful management of the environment and of our natural resources.

How can you expand or add habits to develop healthy habitats?

We can better afford to continue keeping you informed by utilizing electronic mail. If you can and are willing to receive notices and this newsletter via e-mail, contact the Bradford County Conservation District at jane-carman@pa.nacdnet.org, 570/265-5539 Ext. 6, RR 5, Box 5030C, Towanda, PA, 18848

4-H Offers Embryology and Hydroponics

Would you like to add more hands-on activities to your science and math curriculum? Bradford County 4-H and The Pennsylvania State University is offering “Embryology in the Classroom” to all 3-5th grade classrooms and Hydroponics to all middle school classrooms.

Timeline: March 1-26 or April 19-May 14

Cost per project: \$20.00 is charged by Penn State University to offset the cost for printing, purchasing, and developing educational materials.

Registration: Please contact Tia Steinfelt, Bradford County 4-H Educator, at 570-265-2896 or tsc130@psu.edu

What is Embryology in the Classroom: Embryology is the study of the growth of a living thing. In this project, you will study the science of the chicken embryo while watching the embryo growing inside the egg until it hatches.

For four weeks, you will be supplied with all the equipment and resources you need to teach 6 Embryology lessons and hatch 2 dozen fertilized chicken eggs, including:

Incubator	Feeder/Water
2 Dozen Fertilized Eggs	Chick Feed
Thermometer	4-H Embryology Leader’s Guide and Resources
Candler	4-H Embryology Member Guides (Grades 3-5)
Heat Lamp	Chicken Reading Books (Grades K-2)

Students will care for the eggs and watch them grow while they examine the needs of a living organism, parts of the egg, reproductive organs, stages of a growing embryo, from feeding the hen to your home, producers and commodities, and more. Within this project, students will also have the opportunity to develop life skills such as responsibility, respect, caring, teamwork, and record keeping. The curriculum has been correlated to the U.S. National Science Education Standards while incorporating math, reading, and writing activities that are grade-level appropriate.

On the first day of each session, one 4-H Educator will deliver the supplies and present a brief demonstration of caring and incubating the eggs. Then, that 4-H educator will return 9-19 days later to present a 45 minute to 1 hour lesson on 4-H – How you can get involved, parts of the egg, stages of the embryo, and a candling demonstration.

What is Hydroponics:

Hydroponics is a curriculum built around a hydroponic unit – a system for growing plants in water. In this project, you and your group will construct and set plants in a hydroponic unit, watch the plants grow, and harvest them. Although the primary focus of the project is hands-on learning about plant science, sessions also deal with engineering, physics, nutrition, and careers in horticulture. Classrooms will receive all supplies need to teach 6 lessons of Hydroponics including a:

- Hydroponics System
- Timed Lighting System
- Student Lesson Plans/Activity Sheets
- Seeds
- Plant Nutrients

On the first day of each session, one 4-H Educator will deliver the supplies and present a brief demonstration of setting up the system, starting the seeds, and caring for the plants. Then, that 4-H Educator will return to present a 45 minute to 1 hour lesson on 4-H – How you can get involved and to teach one lesson of the curriculum. And at the end of the session, students will be able to prepare, eat, and enjoy a hydroponics salad.



INCLUDE POSTER CONTEST BROCHURE