



Ag in the Classroom



UNIVERSITY OF ILLINOIS
EXTENSION



Montgomery County Agricultural Literacy Resource Kits

The kits described on this list are available for loan at no cost and can be checked out from the Montgomery County Extension office. A loan period is generally for two weeks but longer arrangements may be made.

Many kits, such as the mAGic kits, contain a 3-ring binder full of lessons, experiments and handouts related to the particular topic in the areas of language arts, math, science and social studies. Some kits are smaller activity kits that focus on just one activity. Each kit is different but often they contain books, DVDs, posters, reusable and disposable supplies to create experiments, models, crafts and other hands-on learning tools for student use in the classroom. Some food and planting materials are provided. Generally, dairy or other items that need refrigeration are not provided.

To borrow a kit, please contact

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Agricultural Literacy Resource Kits

Earth, Soil and Water Kits

- ◆ **Soil mAGic** Soils are alive as students will discover through the lessons in this kit. Students will learn to conduct experiments in soil pH, create soil profiles, and understand the components of soil. Sand, silt and clay samples allow examination of differences and a fun lesson on solving a soil mystery. Students will also unveil the history of crop rotation and dig into the Dust Bowl.
- ◆ **Circles of Earth Bracelet** Students assemble this bracelet that shows how everything on earth is related.
- ◆ **Soil Sam** Create “Sam” with a ball of soil in a stocking on a cup of water and watch his “hair” (grass) grow.
- ◆ **Edible Soil Profile** Study bedrock to topsoil with this edible creation made from pudding, cookies, gummy worms and more.
- ◆ **Earth Day/ Recycling: Explore the Top 40 Hits of Planet Earth** Every day is Earth Day. Experience several environmental activities including topics such as recycling, habitats, soil, trees, renewable energy and water. Participate in the “Recycling Dash” game.
- ◆ **Glaciers formed our Land** Find out how our landscape has changed over time as you create a map of Illinois from clay. (Part of the Illinois mAGic kit)
- ◆ **Water Cycle in a Bag** Create a model of Earth in a plastic bag, hang in the sun and watch the water cycle work.
- ◆ **Water Cycle Bracelet** Assemble beads on bracelets as students learn more about the water cycle.
- ◆ **Worms** Host a worm farm in your classroom for a month. Five worm farms are available for loan. The kit includes the habitat, live worms, instructions and materials for experiments, books, DVD, computer game, posters and more. Registration and additional information is available on-line for this kit at <http://go.illinois.edu/18> Look for *Montgomery County Worm Farm* under the online registration section of the website.

Plant Kits

- ◆ **Plant mAGic** This kit offers problem-solving activities in plant propagation, production and processing. Students will conduct experiments to learn about plant differences and plant ecosystems. They’ll also sequence plant products, research the discoveries of George Washington Carver, and look at the impact of crops on the national economy.
- ◆ **Garden in a Glove** Plant a salad inside a plastic glove, germinate five types of seeds on cotton balls in the fingers of the glove.
- ◆ **Hardiness Zones** Learn to read a seed packet and make a biodegradable planter from a paper bag.
- ◆ **Plant Cups** Plant flower or vegetable seeds. Includes soil disks that expand with water, seeds and containers.
- ◆ **Seed Viewer** Observe, dissect and diagram seeds. Plant seeds in see through container to watch germination.
- ◆ **Terrariums** Assemble a test tube terrarium and plant lettuce seeds. Relates well to lessons on plants, soil or the water cycle.
- ◆ **The Power of Seeds** How do plants grow through a sidewalk? Experiment with plants and plaster.

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Poultry

- ◆ **Poultry mAGic** Students will uncover interesting facts about U.S. poultry production through exercises and hands-on experiments. They'll learn about the anatomy and nutritional value of an egg. They'll also learn about the history of egg production and find out how poultry dishes are prepared around the world. (This kit can be used independently of hatching chicks in the classroom— lots of other great lessons and activities)
- ◆ **Hatch Chicks in the Classroom/ Incubation and Embryology** Crack the mystery of eggs and see a miracle in 21 days! Students will always remember the experience of watching the eggs hatch and those newborn chicks taking their first steps in your classroom. Kit includes an incubator, egg turner, eggs, brooder supplies, lesson binder, dvd, posters, journaling and other hands-on activities. Specific dates are established each year for borrowing an incubation kit. Fourteen kits are available and the enrollment list usually fills up quickly for the spring sessions. Registration and additional information is available online for this kit at <http://go.illinois.edu/18> Look for *Montgomery County Chick Hatch* under the online registration section of the website.
- ◆ **Ducks** Books, crafts and even flippers for students to waddle like a duck
- ◆ **Turkeys** Learn interesting facts about turkeys. Did you know the turkey was almost our national bird? This kit includes books, crafts, games and other activities all about

Dairy

- ◆ **Dairy mAGic** Hands-on exercises let students explore the processes of using milk, acids, enzymes, and bacteria to make cottage cheese, yogurt, and ice cream. Students will find out how much milk one cow produces in its lifetime. Follow the path milk takes as it travels from cow to you. Learn about the nutritional value of dairy products and try your hand at making butter. Students will also dive into history, and they'll learn about issues of supply and demand in the dairy industry. (Items that need refrigeration are not provided.)
- ◆ **Butter** Each student makes their own butter in individual 2 ounce containers.
- ◆ **Cottage Cheese** Using a hot plate, learn how to make cheese. Directions and cooking equipment provided.
- ◆ **Glue from Milk** Have you ever noticed the cow pictured on the front of some school glue? Students will make glue from milk and use it in a craft project.
- ◆ **Ice Cream in a Bag** Bags, rock salt, serving materials and more to make ice cream in the classroom.

Additional Animals

- ◆ **Beef** Use our huge stuffed cheeseburger model to learn where food comes from, assemble a burger snack (made from cookies) and write a cheeseburger paragraph.
- ◆ **Farm Animals** Explore all the animals found on a farm. Puppets, crafts and books.
- ◆ **Frogs** Frog life cycle activities and books
- ◆ **Horses** Horses are measured in hands—students will measure things around the classroom in hands also. Horse activities and readers.
- ◆ **Pigs** Gain a better understanding of how farmers take care of pigs and how people benefit from pigs. Pigs provide us with a variety of meat and non-food by products. Pig board game, vocabulary and crafts, such as, a water bottle pig. Directions for pig “snackivities.”
- ◆ **Sheep** Learn all about sheep, create a clothespin sheep, sheep puppet or wool bracelet.

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General Agriculture

- ◆ **Adventures on the Farm** Students will learn what a farm is, what farmers do, and what comes from farms. Farm-grown products are transported, processed, marketed and distributed which involves many agricultural careers. Through these activities students will discover that they depend on agriculture every day.
- ◆ **Agriculture in Baseball or Football** Find out how sports are connected to agriculture.
- ◆ **Agriculture in Space** Food models of the solar system
- ◆ **Aviation and Agriculture** Make a paper helicopter. Learn how aviation is used in farming.
- ◆ **Biotechnology** Lessons include “The Cell”, “What is DNA?”, “Inherited Traits”, “Biotechnology and Gene Splicing”, “DNA Extraction” and “Careers”
- ◆ **Careers** Explore the many careers in agriculture using facts and games.
- ◆ **Machine mAGic** Students will learn about the history of farm machinery and the impact of modern farming techniques on families and communities. They’ll also learn how inventors John Deere and Cyrus McCormick helped shape modern agriculture. Hands-on exercises let students identify machinery parts and estimate farm machinery costs. Simple and complex machine activities and velocity experiments included.
- ◆ **Nutrition and Ag** Follow the path of food from the soil to the spoon. Nutrition lessons, food label reading activity, food sorting cards and a card game.
- ◆ **Pondering Pizza** Take a look at a slice of agriculture...a pizza slice. Learn how all the ingredients on your pizza begin on farms, are processed, distributed and made into a delicious meal. Take part in a slice of the action through the Pizza Party Fractions game. Through hands-on activities, books and curriculum, ponder PIZZA!
- ◆ **Seasons on the Farm** The lessons and materials in this kit will help students understand how agriculture revolves around the seasons and how the farm brings us many lessons about winter, spring, summer and fall.
- ◆ **Who Grew My Soup?** Lesson booklet and hands-on activities based on the book “Who

Illinois

- ◆ **Illinois mAGic** The curriculum in the Illinois mAGic kit is multidisciplinary and is designed to help students learn about Illinois. This kit gives students the opportunity to learn more about the Northern, Western, Eastern and Southern parts of the state. Students will learn about how prairie grass and glaciers affected the state soil. Students learn the Illinois state symbols, products of Illinois and businesses started in our state.

Insects

- ◆ **Insect mAGic** Students will learn about the impact of insects on crop production through a variety of lessons and activities. Mapping exercises let students follow butterflies on migration patterns. Students track a day in the life of an insect and learn about wingspan, life cycles, anatomy, and social hierarchy patterns of common insects. Preserved grasshoppers and bees are in the kit. (Information is available to order live specimens.)
- ◆ **Bees** Includes books, simulation activities, large photos and crafts.
- ◆ **Insect Olympics** Jump, fly and eat like an insect in this interactive lesson.
- ◆ **Butterflies** Includes a habitat, models, puzzles, life-size board game and life cycle crafts
- ◆ **Ladybugs** Includes habitats for ladybugs, books and a magnifying glass activity

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Crops

- ◆ **Apples—Getting to the Core: Apples and Orchards** How do apples grow? Take an inside look at apples and their history. The kit includes a lot of hands-on activities and games, things to make, things to eat, videos, posters and books.
- ◆ **Corn: A-mazing Corn** Learn about various types of corn such as field corn, sweet corn, Indian corn and popcorn. Make corn plastic, use real corn husks and corn packing peanuts to experiment with this Illinois crop.
- ◆ **Chocolate** Learn about the cacao beans, sugar cane, vanilla beans, milk and more included in this sweet treat. Make tootsie rolls in a bag. Make M&M candy booklets. Check out the “Candy Culture and Creativity” lesson booklet.
- ◆ **Christmas Trees** Learn the difference between an evergreen tree and a deciduous tree. Examine real tree slices, identification methods and more. Christmas tree books and crafts.
- ◆ **Cotton/Unraveling Fibers: More than Just Clothes** Unravel the mysteries of the fibers that make up our clothing and other items. Through hands-on activities, books, a video and fiber samples, discover the origins of many natural fibers such as cotton, wool and silk. Try your hand at spinning and weaving and learn how fibers are woven into our daily lives. Dissect real cotton bolls and learn more about how paper money and blue jeans are made.
- ◆ **Cranberries** Books and activities about the planting, harvesting and uses of this berry. Conduct and record results of experiments while bouncing and floating this fruit.
- ◆ **Maple Syrup** Books and activities related to this winter crop. Make a paper bag tree.
- ◆ **Oranges and Other Citrus Fruits** Squeeze, measure, predict and record as you learn more about citrus fruits.
- ◆ **Popcorn** Pop popcorn in the classroom with the Stir Crazy popper. Books, posters, lessons included. Make a colorful popcorn kernel mosaic. Use your senses to explore popcorn!
- ◆ **Pumpkin Patch: A Vine Through Time** Discover the wonders of pumpkins. Watch tiny seeds grow into several varieties of pumpkins in a time-lapse video and learn how to prepare the soil for next years’ crop. The Pumpkin Patch contains posters, books, hands-on activities, recipes and fascinating pumpkin facts. Make a pumpkin life-cycle chain model. Whip up some pumpkin pie in-a-bag right in your classroom!
- ◆ **Rice** Two-thirds of the world eats rice daily. Learn how it is grown and dissect rice stalks.
- ◆ **Soybeans** A top crop in Illinois, these tiny beans are used for things all around you everyday. Lessons and materials to make a beanie-baby sprouting necklace, soy glue, salad dressing, lip balm and many more interesting experiments and recipes.
- ◆ **Sunflowers** Giant sunflowers contain hundreds of seeds. Use tweezers to remove and count the seeds. Math and art activities.
- ◆ **Wheat: The Wheat We Eat** Learn how wheat is grown, milled and then made into food worldwide using science, math, reading and social studies lessons included in this curriculum. Along with the core subject, you will also find lessons to expand curriculum

Other

IDNR Field Trip Pack The Illinois Department of Natural Resources has a backpack designed to encourage nature exploration by young children (Prek-3). The backpack contains hands-on equipment such as magnifying glasses and binoculars, identification field guides for birds, insects, trees as well as insect collection tools, a plant press and animal track identification book. The IDNR Field Trip Pack can be checked out from the Ag Literacy program.



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Ag Mags

The Illinois Agriculture in the Classroom Ag Mags are 4-page, colorful agricultural magazines for kids. They contain information about agriculture, bright pictures, classroom activities and agricultural careers. Ag Mags come in classroom packs of 30 and are free. Our supply and availability from the state office is constantly changing. All Ag Mags are available online at <http://agintheclassroom.org/TeacherResources/AgMags.shtml>. Many of the online versions are also interactive.

In Stock & Online

Apple
Beef
Careers
Corn
Nutrition
Pizza
Pollinator
Pork
Pumpkin
Seasons
Soybean
Soil
Specialty Crops
Urban

Water
Wheat

Available Online Only

Biotechnology
Dairy
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Illinois
Livestock
Renewable Energy
Sheep
Poultry
Technology
Tree

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