## Hands-on Learning Resources

To check out these resources on free-loan basis, contact Rebecca Livingston, U of I Extension - Christian County at (217) 287-7246 or rlvngst2@illinois.edu,

**mAGic Kits:** Bring mAGic into your classroom with these kits. The lessons in the mAGic kits are multidisciplinary, all inclusive, and designed to bring math, science, social studies and Language Arts to life through agriculture. The mAGic kits address the Illinois Learning Standards with the assessment frameworks identified. The lessons include exercises for grades 4-8 in mapping, graphing, sequencing, reading, writing, experimentation, research and much more.

**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. The kit includes 3 math, 4 English language arts, 3 social studies, and 4 science lessons .

**Illinois mAGic**—Students learn about a variety of topics ranging from the prairie landscape to the Chicago stockyards, the Lincoln-Douglas debates, and the forests of Southern Illinois. As they map their way through IL, check out the seven wonders, meet famous Illinoisans, and discover all the great things that come from IL. Navigating IL waterways will allow the students to see just how diverse our state is, with Amish settlements and coal mines throughout the state. Yet the wealth of our state is found in its' soil. The kit includes 8 math, 10 English language arts, 11 social studies, and 7 science lessons .

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 he impact of crops on the national economy. The kit includes 5 math, 3 English language arts, 4 social studies, and 3 science lessons.

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. The kit includes 5 math, 6 English language arts, 5 social studies, and 4 science lessons.

Machine mAGic—Students will learn about simple and

complex machines, the history of farm machinery and the

**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 a lifetime. They'll also dive into history, and they'll learn about issues of supply and demand in the dairy industry. The kit includes 3 math, 2 English language arts, 4 social studies, and 4 science lessons focused on dairy.

**Poultry mAGic**—Students will uncover interesting facts about U.S. poultry production through exercises and handson experiments. They'll learn about he anatomy and nutritional value of an egg. They'll also learn about the history or egg production and find out how poultry dishes are prepared around the world. The kit includes 3 math, 4 English language arts, 2 social studies, and 3 science lessons. [Note: Kit will be available in the Spring.]

<u>Soil mAGic</u>—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 soils. They will also unveil the history of crop rotation and dig into the Dust Bowl. The kit includes 5 math, 2 English language arts, 4 social studies, and 4 science lessons.





**AgriLearning Kits:** These cross-curricular thematic kits contain a collection of resources – lessons, books, videos/DVDs and more. Many lessons are aligned to the IL Learning Standards. Ideal for grades K-4.

By using these kits, students will learn that while we purchase our food from the store, it begins with plants or animals raised on farms, which are the heart of the agriculture industry. From the farm, products are transported, processed, marketed and distributed, involving a multitude of agricultural careers in this chain of events. Through these kits, students will discover that they all depend on agriculture every day of their lives.

Adventures Around the Farm—Whether living in the country, a small town, or a big city, people depend on farms for food, clothing, and many other things used every day. Farmers produce crops such as fruits, vegetables, nuts, and grains. They also raise livestock such as cattle, pigs, chickens, and sheep. Without the crops and livestock that come from farms, we would all go hungry. The lessons and materials in this kit will help students understand what a farm is, what farmers do, and what comes from farms. They will also learn that there are many different kinds of farms.

**Pigs on the Farm**—Hog production in the United States has changed dramatically over the years. Farmers used to feed their pigs slop, a mixture of leftovers from the farmhouse. Pigs were known for being dirty animals because they wallowed in the mud. Today, farmers feed their animals a balanced diet, many times in a temperature controlled building. The lessons and materials in this kit will help students understand what pigs are, what farmers do to take care of pigs, and how people benefit from pigs.

<u>Seasons on the Farm</u>—In Illinois we have a climate that is made up of four very different seasons. The earth moving around the sun makes the seasons. The lessons and materials in this kit will help students understand how agriculture revolves around the season and how the farm brings us many lessons about winter, spring, summer and fall.

<u>The Wheat We Eat</u>—Wheat has been grown for thousands of years as a food source for humans. Today's farmers use modern machinery to plant and harvest these valuable seeds. The main steps for doing so are the same today as they were for our early ancestors. Teach your students how wheat is grown, milled, and then made into foods worldwide. Using the resources and lessons in this kit, teach about the people who make bread, the places where bread is made, and the different ways to make bread, pasta, and many other foods!

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<u>Getting to the Core: Apples and Orchards</u>—How do apples grow? Where do all those varieties come from? Learn the answers to these questions and so much more! Take an inside look at apples and their history. Getting to the Core has a lot of hands-on activities and games, things to make and things to eat, videos, posters and books.

Pondering Pizza: A Slice of Agriculture—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 in to a delicious meal. Explore Planet Pizza via video and visit a real "pizza farm." Take part in a slice of the action through the Pizza Party fractions game. Through handson activities, books, poster, and curriculum, ponder the wonders of pizza. (grades K-6)



**Pumpkin Patch:** A Vine Through Time—Discover the wonders of pumpkins. Watch 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 great pumpkin facts.

<u>Unraveling Fibers: More Than Just Clothes</u>—Unravel the mysteries of the fibers that make up our clothing and a multitude of 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. Use the magnifying lenses to take a closer look at the textile industry.

## **ILLINOIS** EXTENSION

COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES