

Madison County C.A.R.E.E./Agriculture in the Classroom

Teacher Resource Guide

FREE resources for your classroom!



Phone 618-692-6575

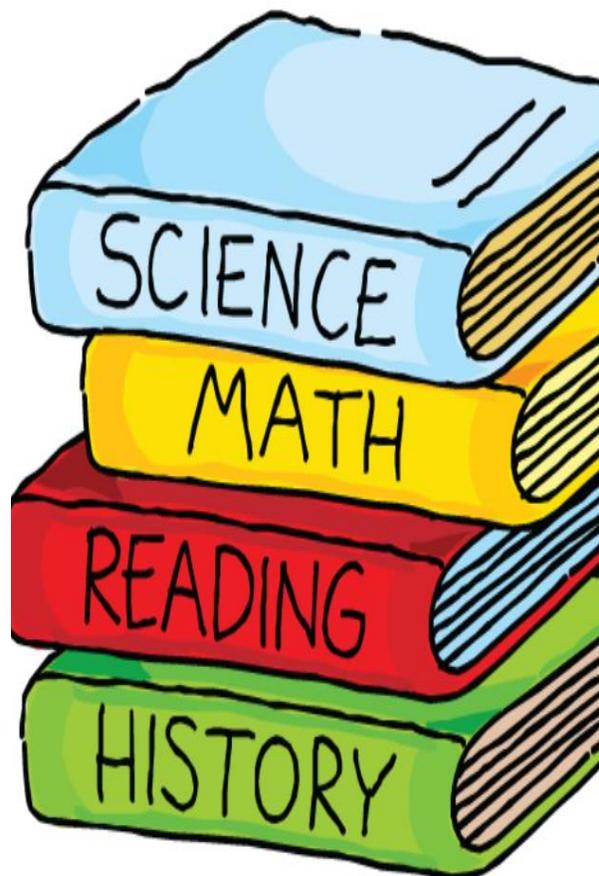
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Madison County CAREE/Ag in the Classroom is proudly sponsored by the businesses listed above. In addition to offering these resource materials free for loan, CAREE also provides teacher workshops, and classroom presentations.

Note: Kits are a wonderful way to bring agriculture into your classroom. CAREE requests the following guidelines when using the kits. In doing so we can continue to provide these incredible teaching tools.

- * Teachers are responsible for pick up and return of kits to the Farm Bureau office in Edwardsville. Office hours are from 8:00a.m. to 4:30 p.m.
- * Please return the kit on the date you have indicated. Most kits are not duplicated and other educators are waiting to use them.
- * The kits can be checked out for a two week period of time. If additional time is needed, the kit can be checked out again if available.
- * If you have requested a kit, but decide not to use it please advise CAREE as early as possible. Some supplies are purchased on a need bases only, this will help save money.
- * These kits are very popular and are frequently reserved months in advance. Generally educators plan out their year and gauge which kits they would like for a particular unit.
- * Supplies needed for activities will be provided, except perishable items, such as milk, ice, etc.

Agri-Science Kits

The agri-science kits are self-contained teaching units; students learn science and math concepts through hands-on, applied agricultural laboratory exercises. Kits include all of the necessary materials to perform several activities. A teacher's guide, student worksheets and handouts, books and instructional video are included.

Kit Description

Grade level

Adventures Around the Farm

Pre-K-3rd

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.

A-mazing Corn

3rd- 6th

"Show and Tell" about various types of corn such as popcorn, field corn, sweet corn and Indian corn. It is A-mazing to learn of the history of these versatile crops that are grown here in Illinois.

Animals All Around

Pre-K-3rd

There are so many animals that live around us– check out this kit to learn about their habitats and lives.

Apples

Pre-K-3rd

It is easy as pie to get the "Core" facts about apples with this kit. There is information about nutrition, the history and the life cycle of an apple. It is filled with loads of ideas to make learning about apples and the many products made from apples so much fun.

Barges

Pre-K-4th

Help students understand the importance of transportation by use of roadway, railway and waterways.

Biotechnology

8th-12th

Biotechnology is a hot topic! Help students understand genetics and how genetic research is applied in our modern world with hands-on learning. Kit includes all necessary materials plus CDROMS.

Careers in Horticulture

8th-12th

Multidisciplinary curriculum, all inclusive, and is designed to help students learn about the wide variety of opportunities in the Horticulture industry. Students will become familiar with diverse career opportunities, have a better understanding of the sales process associated with landscaping, be able to calculate the amount of materials needed for landscaping and understand the importance of color when drawing a landscaping plan.

Dairy Cow Capers

Pre-K-3rd

Explore dairy farming in action. Through videos and books, experience the life of dairy cows on the farm and see a veterinarian at work. 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.

Disappearing Earth

4th-6th

Join the Secret Agent Worms as they try to find out who or what is stealing their earth. This is a fun and informative cross-curricular unit on soil erosion.

Earth Day-Top 40 Hits of Planet Earth

Pre-K-8th

Every day is Earth Day. Experience several Earth Day activities including topics such as recycling, habitats, soil, trees, renewable energy and water.

Field Trip Packs from IDNR

Pre-K-3rd

Each pack is a backpack that contains hands-on equipment to encourage young children to engage in nature exploration. As well as suggestions for educators on how to incorporate natural-resources related topics into the curriculum.

Genetics—Growing Better Every Day

6th- 8th

Colored paper clips are used to illustrate genes and chromosome chains as students learn how traits are inherited. A germination study of seeds which produce albino or normal green corn plants helps students understand genotypes and phenotypes.

Horticulture Science Kit:

8th-12th

Horticulture is a growing industry, especially in urban areas. This kit will give students the opportunity to learn more about Horticulture science. Students will learn about plant taxonomy. They will be able to learn about growing media in horticulture while experimenting with different growing medias.

Hungry Illinois Caterpillar

Pre-K-4th

This lesson has been adapted from the book The Very Hungry Caterpillar by Eric Carle. The students will create their own touch and feel copy of a revised version where an Illinois caterpillar eats his way through the farm and becomes very fat, only to metamorphoses into a beautiful butterfly.

Hydroponics

8th-12th

Kits include all the materials needed to set up a temporary hydroponics system. Like the other kits, a teacher's manual, student worksheets and learning standards are included. Students will grow plants with a nutrient water solution and determine pH levels of a nutrients solution and learn more about this type of horticulture.

Illinois Prairies

1st-6th

What is a Prairie? Illinois is re-known for its many prairie sections. With this instructional kit students will grow prairiegrass and learn more about the different types of terrain that the state of Illinois is made of.

Insect

Pre-K-3rd

Take a closer look at bees, butterflies, and other insects. This kit is full of books, movies & hands on activities on insects.

Kids for Trees

K—8th

Bark, leaves and seeds are used to identify different trees in our environment. This hands -on kit is filled with many activities to read and do. Leaf stamps, tree cookies and colorful books are all a part of this interesting kit.

Learning Barn

Pre-K-3rd

Look inside the learning barn box and discover books, videos, and activities about agriculture, animals, crops and all the wonderful happenings that take place on a farm.

Nutrition

Pre-K-3rd or 4th-8th

How many calories are there in a banana? Who needs more calcium? The answers to these questions and many more nutritional facts are found inside this kit.

Oil & Polymers

3rd -8th

The activities in this kit were designed to teach students to observe, measure and describe how renewable resources such as soybeans can be used to make industrial products. The lessons are focused on 2 important components of soybeans— oil and polymers. Students will make adhesives from soybean protein and candles, crayons, ink, and hand cream from soybean oil.

Pigs on the Farm

Pre-K-3rd

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.

Pondering Pizza

Pre-K-5th

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. 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 hands on activities, books, posters and curriculum, ponder the wonders of pizza.

Pumpkin Patch

Pre-K-3rd

Discover the wonders of pumpkins. Watch tiny seeds grown into several varieties of pumpkins in a time-lapse video and learn how to prepare the soil for next year's crop. The Pumpkin patch contains posters, books, hands-on activities, recipes and fascinating pumpkin facts.

Recycling

3rd -8th

Included in the kit are lesson plans, videos and samples of recycled products.

Reebops

4th -12th

Use marshmallows and genetics to create your own reebop.

Renewable Resources– *Agriculture Renews our Planet*

3rd -8th

Students compare soy-ink with petroleum based ink; make biodegradable plastics from corn and compare renewable and nonrenewable natural resources.

Seasons on the Farm

Pre-K-3rd

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.

Super Seeds- *The Super Soybean*

3rd -8th

Students examine the effect of water on seeds, learn the parts of seeds, compare monocot with dicot seeds and plants, study the effects of temperature variations on seed germination and plant growth, and investigate the many uses of soybean products in our lives.

Three Sisters

Pre-K-6th

According to Iroquois legend, corn, beans and squash are three inseparable sisters who only grow and thrive together. Growing a Three Sisters garden is a wonderful way to feel more connect to the history of this land, regardless of our ancestry.

Unraveling Fibers

Pre-K-6th

Unravel the mysteries of fibers that make up our clothes and a multitude of other items, through hands on activities, books, a video, and fiber samples. Discover more than just clothes and the fibers that make them. It is filled with information about the animals and crops that produce the fibers. In addition learn about the careers and the processes necessary to manufacture and distribute the products.

Wild Mammals of Illinois (Bats & Furs)

1st -6th

Discover the many mammals that live in the Illinois woodlands. This kit reveals clues to look for such as footprints, hair, feathers and other items left behind by our natural friends. Special features include track casts and bones.

What's Popping?

Pre-K- 5th

Good times are popping with popcorn! Many questions can be answered about popcorn from this kit. Science, history, language and even culinary arts skills are tested here. ***Important:** Popcorn is Illinois' official state snack?

Wheat We Eat

Pre-K-3rd

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!

Activity Kits

Activity kits are a single activity that can be done in the classroom. Materials needed are included (except perishables).

DNA Extraction

6th-12th

Students get to extract their own DNA using Gatorade and soap.

Edible Landfill

K-6th

Students get to make their own edible landfill using different cereals which represent different types of trash. All of the food materials are in this kit except for milk (used to make the pudding that represents the soil and plastic liners).

Edible Soil

K-6th

Students get to make their own edible soil profile using chocolate chips, Oreos, pudding and gummy worms. All of the edible food supplies are in the kit except milk (used to make the pudding).

Ice Cream

Pre-K-12th

Students learn many skills by making home-made ice cream in a plastic bag and then sharing the treat. A video takes you on a trip to the farm where you learn more about agriculture.

Pumpkin Patch Pie

Pre-K-4th

Students will get to experience making a pumpkin pie in a bag. Students put pumpkin pie filling, pumpkin spices and pudding in a bag and place it on graham-cracker crust. This is a fun way for students to make pumpkin pie. All the necessary supplies are in the kit except for the milk that is used to make the pudding.

Soil Sam

K-6th

Students get to make their own plant person. The grass that students plant and watch grows into Sam's hair. This fun activities helps students learn about plants. All necessary materials are in the tub.

Soy Candles and Crayons

2nd-8th

Students can make their own soy candles and crayons using soy flakes. This is a fun activity for students. Teacher assistance is need for the melting of the soy flakes and pouring them into molds

Wheat Germ Extraction

6th-12th

Students get to extract DNA from wheat using soap and wheat germ. All of the necessary materials are in the tub.

Ag Mags

Illinois Agriculture Magazines:—"Ag Mags"

4th-6th

Ag Mags are 4 pages, full-colored "news magazines." Each issue covers a specific agricultural topic along with math, science, social studies, and language arts activities. They come in a package of 30. Order any issue you would like, read them in the classroom, send them home, or keep them from year to year. Ag Mags can be viewed at: <http://www.agintheclassroom.org>

Ag Mags in Stock:

Apple	Beef	Biotechnology	Careers	Corn	Dairy	Horse	Livestock	Nutrition
Pizza	Pork	Pumpkins	Renewable Energy	Soil	Soybean	Specialty Crops	Urban	Water

Ag Mags Online:

Apples	Beef	Biotechnology	Careers	Corn	Dairy	Horse	Horticulture
Illinois	Livestock	Nutrition	Pizza	Pork	Poultry	Pumpkins	Renewable Energy
Sheep	Soil	Soybean	Specialty Crops	Technology	Trees	Water	Urban

mAGic Kits

These kits offer engaging lessons addressing Illinois learning standards in English, Math, Science and Social Studies. The magic kits are self-contained teaching units, whereby students learn through hands-on, applied agricultural laboratory exercises. Kits include all of the necessary materials to perform the activities, teacher's guides, student worksheets and handouts, and instructional video and books.

Dairy Magic

3rd-8th

Hands-on exercises let students explore the processes of using milk, acid, enzymes, and bacteria to make cottage cheese, yogurt, and ice cream. Students will find out how much milk one cow produces in its lifetime. They'll also dive into history and learn about issues of supply and demand in the dairy industry.

Illinois Magic

3rd -12th

The curriculum in the Illinois Magic kit is multidisciplinary, all inclusive, 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 more about how prairie grass and glaciers affected the state soil. They will also learn about different businesses that were started in Illinois.

Insect Magic

4th -8th

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.

Machine Magic

3rd-8th

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 exercise let students identify machinery parts and estimate farm machinery costs.

Plant Magic

3rd - 8th

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.

Poultry Magic

Pre-K-8th

Crack the mystery of eggs and see a miracle in 21 days! 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. Attending a **mandatory** teacher's workshop is required.

Soil Magic

4th -8th

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.

Agriculture Resource Kit Checkout Form

Name: _____ Phone# _____ School: _____

Grade Level: _____ Email _____ # of Students: _____

Note: Please indicate the **EXACT** pickup date and return date. **Fax: Form to (692-9103) or Email information to: mail@madcocaree.org**

	Pick-up Date	Return Date		Pick-up Date	Return Date
Adventures Around the Farm			Learning Barn		
A-mazing Corn			Machines Magic		
Animals All Around			Nutrition Pre-K—3 rd		
Apples			Nutrition 4 th -8 th		
Barges			Oil & Polymers		
Biotechnology			Pigs on the Farm		
Careers in Horticulture			Plant Magic		
Dairy Cow Capers			Pondering Pizza		
Dairy Magic			Poultry Magic		
Disappearing Earth			Pumpkin Patch		
DNA Extraction			Pumpkin Pie		
Earth Day- Top 40 Hits of Planet Earth			Recycling		
Edible Landfill			Reebops		
Edible Soil			Renewable Resources		
Field Trip Packs from IDNR			Seasons on the farm		
Genetics			Soil Magic		
Horticulture Science			Soil Sam		
Hungry Caterpillar			Soy Candles & Crayons		
Hydroponics			Super Seeds		
Ice Cream			Three Sisters		
Illinois Magic			Unraveling Fibers		
Illinois Prairies			Wild Mammals of Illinois		
Insect Pre-K-3rd			What's Popping		
Insect Magic			Wheat Germ Extraction		
Kids for Trees			Wheat We Eat		

Aq Mags: