

# Electronic Lesson Plans

These programs will be emailed directly to you. Please make sure your email address is correct on the registration form.



## 3R'S - REDUCE, REUSE, RECYCLE

Grades K-3 or Grades 4-8

### 5 lessons in each graded curriculum booklet

Environmental stewardship requires thoughtful management of waste products. This curriculum shows how to reduce trash by reusing and recycling.

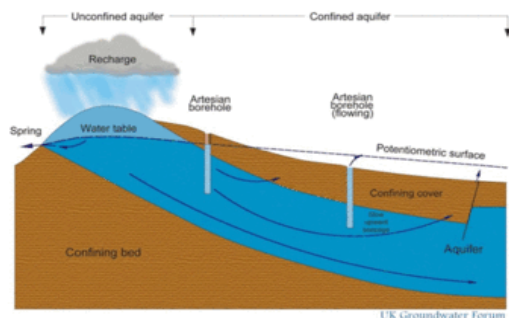
- **Kansas Science Standard:** Interdependent Relationships in Ecosystems (K, 3, 6-8), Energy-Natural Resources (4), Earth's Systems (5), Matter & Energy in Organizations & Ecosystems (6-8), Human Impacts (6-8)

### Teacher Provides:

- ▶ Handouts in quantity
- ▶ Activity supplies

### Program Includes:

- ▶ Teacher's lesson plan booklet
- ▶ Copy-ready student worksheets



## AQUIFERS AND NON-POINT SOURCE POLLUTION

Grades 3 to 5

Each activity takes about 45 minutes, several activities are included

Not all pollution comes from factories or businesses; much of it is *non-point source* that is caused by normal household activities. This lesson explores the importance of water in underground aquifers and the challenge of keeping our drinking water pollution-free. It focuses on where drinking water comes from, and how pollution in the environment threatens its safety.

- **Kansas Science Standard:** Interdependent Relationships in Ecosystems (3), Energy (4), Earth's Systems (5)

**Teacher Provides:**

- Supplies for hands-on learning activities
- Handouts in quantity

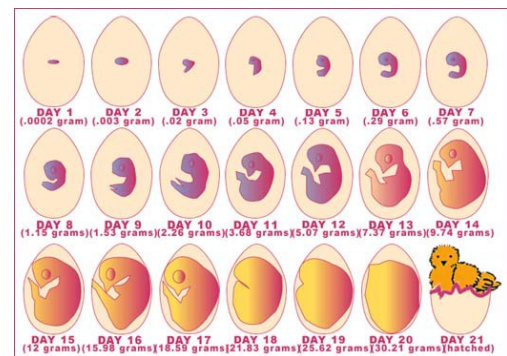
**Program Includes:**

- Electronic copy of curriculum

## CHICK EMBRYOLOGY

### Grades 3-4

Egg hatching provides a rare opportunity to study the stages of embryonic growth during the 21 days of incubation. This lesson helps guide classrooms through the process of controlling several environmental variables during the incubation process, plus additional activities related to the care of fertile eggs and young chicks.



- **Kansas Science Standard:** Life Cycles and Traits (3), Structure, Function and Information Processing (4)

**Teacher Provides:**

- Incubator
- Fertile Eggs
- Supervision for 21 day incubation period
- Care and supplies for newly hatched chicks
- New home for chicks once they become too large to stay in the classroom

**Program Provides:**

- ▶ Hatching information and directions
- ▶ Directions for construction of incubator, candling stand and brooder house
- ▶ Egg and chick safety information

**E.A.R.T.H.**

**(Earth Awareness Researchers for Tomorrow's Habitat)**

**Grades 5 to 8**

**Most lessons requires 45 to 60 minutes**

E.A.R.T.H. is an award-winning upper elementary and middle school hands-on, environmental education curriculum that contains 30 lessons on the topics of air, water, soil, living resources, and impacts. E.A.R.T.H. can be used to supplement many earth science, biology and/or environmental quality and conservation lessons.

- **Kansas Science Standards:** Earth's Systems (5), Matter and Energy in Organisms and Ecosystems (6-8), Interdependent Relationships in Ecosystems (6-8), Human Impacts (6-8)

**Teacher Provides:**

- ▶ Activity Supplies
- ▶ Handouts in quantity

**Program Includes:**

- ▶ Teacher's curriculum book



# FRACTION POWER

## Layered Cookie Mix

**For groups of less than 50 students or less than two classrooms**

**(Larger groups please see classroom programs) Grades 2 and 3**

Each child makes a layered dry chocolate chip cookie mix while learning and using mathematical fraction and fraction equivalency skills.

- **Kansas Mathematics Standard:** Numbers and Operations-Fractions (3); Geometry (2)

### Teacher Provides:

- ▶ Cookie Mix Ingredients and containers
- ▶ Measuring cups and spoons
- ▶ Copies in quantity

### Program Provides:

- ▶ Teacher's lesson plan booklet
- ▶ Copy ready student worksheets



# GEOLOGY ROCKS!

**Grades 4 to 6**

**This unit includes 10 activities; most can be completed in 45 to 60 minutes**

Many people do not realize how much geology impacts their daily life. Not only are rocks used in all sorts of everyday products (toothpaste, chewing gum, jewelry, building materials, etc.) but a knowledge of geologic features is essential for human safety. Geology helps builders locate roads, bridges, buildings and recreation areas in places where they are less likely to be damaged by floods, landslides, earthquakes or volcanoes.

- **Kansas Science Standard:** Earth's Systems (4-6), History of Earth (6)

**Teacher Provides:**

- ▶ Supplies for hands-on learning activities
- ▶ Handouts in quantity

**Program Includes:**

- ▶ Electronic copy of curriculum



## HISTORICAL HANDICRAFTS

Grades 3 to 8

This unit allows children to experience the excitement of preparing for an historical Kansas county fair.

It was originally written as an accompaniment to Old Cowtown Museum's "Old Sedgwick County Fair" as an aid to help students prepare to enter the fair judging contest. However, it can be successfully used as a hands-on classroom Kansas history lesson that is interesting and engaging for students.

- **Kansas Social Studies Standard:** History (3-4), Kansas History (7), US History (8)

**Teacher Provides:**

- ▶ Supplies for hands-on learning activities
- ▶ Handouts in quantity

**Program Includes:**

- ▶ Electronic copy of curriculum



## HOUSEHOLD HAZARDOUS WASTE

Grades K-3 or Grades 4-8

6 lessons in each graded curriculum booklet

Ordinary household substances can be hazardous. This curriculum teaches children how to identify and use toxic products safely and how to substitute non-toxic alternatives.

- **Kansas Science Standard:** Interdependent Relationships in Ecosystems (K, 3, 6-8), Energy-Natural Resources (4), Earth's Systems (5), Matter & Energy in Organizations & Ecosystems (6-8), Human Impacts (6-8)

**Teacher Provides:**

- ▶ Handouts in quantity
- ▶ Some household containers and utensils

**Program Includes:**

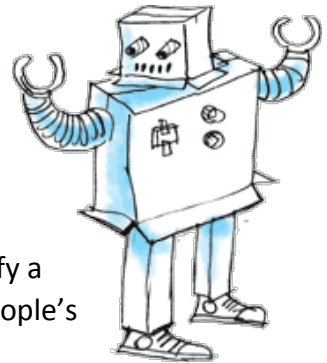
- ▶ Teacher's lesson plan booklet
- ▶ Copy ready student worksheets

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# INVENTIONS

**Grades 4 to 8**

New inventions are often sparked by the possibilities created by current technology. Most inventors use a special procedure that makes it easy to identify a problem, list many possible solutions and construct an object that will fulfill people's needs.



This unit, which was adapted from a lesson created by the U.S. Patent Office, will guide you and your students through the process of creating your own invention. It will also take a look back in history to see how past inventions were created, and how they still affect our lives today.

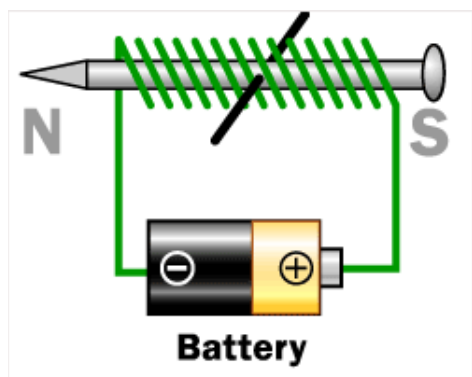
- **Kansas Science Standard:** Forces and Interaction (3, 6-8), Energy (4, 6-8), Engineering Design (5-8), Human Impacts (6-8)
- **Kansas Social Studies Standard:** History (3-4), Human Impact on the Earth and Physical Systems (7)

**Teacher Provides:**

- ▶ Supplies for hands-on learning activities
- ▶ Handouts in quantity

**Program Includes:**

- ▶ Teacher's lesson plan booklet
- ▶ Copy ready student worksheets



# MAGNETISM

**Grades 3 to 8**

Magnets are useful things that we don't often think about, yet the forces involved are complex and fascinating. This lesson explores the importance of magnets and electromagnets in daily life and includes several experiments that illustrate how they work.

- **Kansas Science Standard:** Forces and Interactions (3, 6-8), Engineering Design (5-8)

## Teacher Provides:

- ▶ Supplies for hands-on learning activities
- ▶ Handouts in quantity

## Program Includes:

- ▶ Electronic copy of curriculum

# WHEAT SCIENCE

**All Wheat Science kit orders must be received by November 4, 2016 Wheat Science kits will be ready for pick-up after December 5, 2016**

**Grade 3 to 5**



**This lesson is for combined groups with less than 50 students or less than 2 classrooms**

**(For groups of more than 50 students or two classrooms please see "Classroom Programs")**

Includes one instructional unit with several wheat-related activities, including bread baking. The classroom bread baking activity takes about 1 1/4 hours, rising and baking time require an addition 70 minutes.

Students explore the importance of Kansas wheat, principles of baking, yeast development, and good nutrition. Science and math experiments with wheat and yeast allow students to discover real-life applications for skills learned in the classroom.

- **Kansas Social Studies Standard:** History (3-4)
- **Kansas Mathematics Standards:** Operations and Algebraic Thinking (3-4), Measurement and Data (3-4)
- **Teacher Provides:**
  - ▶ TV and DVD Player
  - ▶ Oven
  - ▶ One adult volunteer for every 4-8 children
  - ▶ Activity supplies
  - ▶ Copies of activity pages as needed

**Program Includes:**

- ▶ Emailed "Wheat Science" instructional unit
- ▶ "Bread in a Bag" kits available for purchase with advance reservation by November 4 (\$6.00/kit)
- ▶ Kits must be picked up at Sedgwick County Extension Office. Each kit serves 4 students
- ▶ Modern Marvels "Bread" DVD available to borrow
- ▶ Bag of wheat kernels from the farm if desired
- ▶ Partial scholarships are available to Title 1 schools if bread kits are purchased

**An order form can be found online at: <http://tinyurl.com/ju24yut>  
Please complete all sections of the order form. Programs are scheduled first come, first  
served after your completed order form has been received.**

**To view a copy of the complete current Sedgwick County School Enrichment  
Catalog [click here](#).**