Ag Products Lab Choices

2011-2012

New this year…

Fabric Scientists (Fabric)* (Grades 3-5)
Students explore everyday fabrics such as cotton, wool, and polyester as they conduct tests (stretch, ravel, absorption, wrinkle, snag, flammability) to decide which fabrics are best for different uses. It becomes apparent that their jeans and t-shirts are agricultural products.

Colorful Bean (Colorful)* (Grades 2-5) (An investigation and demonstration)
Students experiment to decide whether petroleum based or soybean based crayons produce the brightest color, best coverage and least flakiness. Lesson ends with a soybean crayon making demonstration. Students take home a soybean crayon.

Corn: the Environmentally Friendly Crop (Corn)* (Grades 3-5)
This two-fold lab experience has students examine the environmental impact of a packing foam made from petroleum with one made from corn. Then, students create a plastic made from cornstarch and corn oil.

Cream to Butter (Cream)* (Grades 3-5)
Students are given the task of testing various milk products to determine which one will produce butter and to discover why it produces butter. Session ends with students sampling their product.

Eggciting Eggs (Eggs)* (Grades 3-5)
Students act as egg inspectors after discovering and labeling the parts of an egg. Eggs are candled, weighed and measured, and inspected for freshness.

Glue from Milk (Glue)* (Grades 3-5)
Students act as chemists and laboratory technicians as they produce glue from milk and then test the strength of their glue against Elmer's glue using a peel test, tensile strength test, and shear strength test.

Mighty Smooth Bean (Mighty)* (Grades 3-5)
(An investigation and demonstration)
The power of a soybean is revealed to students as they plant seeds in plaster of Paris and watch this bean show its strength. A demonstration

follows with lip balm being made from beeswax and soybean oil. Students take home a sample.

Thirsty Stems (Thirsty)* (Grades 2-5)
Students discover the parts of a plant and their function as they assemble a working model and watch the process of capillary action occur right before their eyes.

Soak It Up! (Soak)* (Grades 3-5)
Students act as soil scientists as they try to discover if the water holding capacity of soil can be improved. Data is collected using metric measurements. This investigation promotes careful following of directions and teamwork.

Super Slurper (Slurper)* (Grades 3-5)
Students examine the absorbency of several household products and then investigate the water holding properties of a commercial agricultural product and a pure chemical. The results of this experiment are related to new developments in the agricultural industry and served as a precursor to the development of disposable diapers.

Well Contamination ~ From Where to Where? (Well)* (Grades 3-5)
An imaginary town is experiencing pollution in some of its wells. Students collect data as they analyze potentially contaminated wells and the possible source of contamination. Conclusions are drawn as students report to the town council their findings.

Important Scheduling Information

When planning a schedule, allow a minimum of **50-60 minutes** for scientific investigations. **Allow 10 minutes between classes** for clean up and set up. If the need arises to change entirely from one experiment to another (this is NOT recommended) an additional 30 minute break must be allotted for the change-over. A 30 minute lunch break for the teacher must be included.

When listing your selections on the class schedule, just use the shortened (Title) for lab choice. Our teachers have the option of changing a lab selection when it seems not to be age appropriate.

A parent volunteer is needed for each morning and afternoon (not each class) to help prepare materials, cut yarn, refill containers, and assist with classes.

The Ag Products lab has 12 work stations.
Please divide your class into 12 teams prior to arriving at the lab.

Ag Products
Walk-Through Selections

1. **The Little Red Hen Makes a Pizza** (Pizza)* (Grades K-3) Students participate in a story using props and puppets and then make a **Pizza Charm** which shows that pizza comes from the farm not the pizza store.

2. **Who Lives on the Farm?** (Farm)* (Grades K-4) Students share what they know about farm animals and then learn new facts and "roll" and "stamp" their own barnyard.
3. **Here, There and Everywhere** (HTE)* (Grades K-5) – Students connect selected farm crops and animals to the products they produce and then use map skills to highlight counties that are the highest producers.
4. **Tops and Bottoms** (T-B)* (Grades 1-4) - A delightful tale about a lazy bear and clever hare is following by a unique sorting activity.
5. **Popcorn Capers** (PC)* (Grades K-3) – A big book experience followed by a mini-lesson to determine what causes certain objects to sink or float.

6. **Ag Products Sticker Puzzle** (SP)* (Grades 1-5) – Students trace agricultural products to their source using stickers.

7. **Seeds, Seeds, Seeds** (Seeds)* (Grades 1-5) – Students examine seeds and match them to the foods they eat.
8. **Vegetable Friends & the Farm Charm** (Farm)* (Grades 1-3) After hearing about some vegetable friends, students assemble a "charm bag" containing animals and crops related to farming.
9. **Egg Model** (Model)* (Grades 1-5) – Students discover some interesting facts about eggs and then build a model.

10. **Thanks to Cows** (Cows)* (Grades K-2) Students will enjoy a story and an opportunity to make their own butter.

When planning walk-throughs, allow **25-30 minutes** per class. Allow **10 minutes** between classes for clean up and set up time. **Kindergarten classes may only visit the lab one time. Lab experiences are not appropriate for Pre-K classes.**

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