Activity: Farming in a Glove

Activity Level: Intermediate

Source: Nebraska Agriculture in the Classroom

PURPOSE
Students will follow instructions to grow four different types of seeds.

EXAMPLE TOPICS IT SUPPLEMENTS
Plant growth and structures; changes in living things.

ACTIVITY SNAPSHOT
1. Organize and Prepare Supplies
2. Read Background Information
3. Interest Approach
4. Conduct Activity
   This activity has each student create a small “farm” where they can see different seeds germinate. The “farm” is a clear plastic glove with a cotton ball in each of the fingers. A seed is placed on the moist cotton ball and the glove is hung up in a window. The students monitor the glove to watch as the seeds germinate.
5. Ask follow-up questions and make the connection to agriculture
   • What were the predictions at the beginning of the experiment?
   • What changes occurred?
   • What things did we learn by watching our farm glove?
   • Why is plant growth important to us?

STATE STANDARDS IT SUPPORTS
LA 1.1.6.j – Generate and answer clarifying questions.
LA 1.1.6.n – Confirm predictions about what will happen in a text.
LA 1.2.2.a – Write for a specific purpose.
Science 2.3.1.b – Identify basic needs of living things.
Science 2.3.2.b – Describe how living things change as they grow.
Science 2.2.1.f – Use drawings and words to describe observations.

MATERIALS
• Clear plastic glove—1 per student
• Black permanent marker to label gloves—1 per student
• Yarn, roughly 6” long, to tie glove shut—1 per student
• Cotton balls—4 per student
• Small cup of water to moisten cotton ball
• “Farming in a Glove Packet”—1 per student
• 4 different kinds of seeds (soybean, corn, wheat, and dry edible bean) —1 per student
Variation: Different types of seeds can be used to have a garden focus: carrots, lettuce, onions, radish, alfalfa, or herbs.

WHAT’S THE CONNECTION TO AGRICULTURE?
We need crops to feed animals to provide many of our basic needs. Farmers strive to be good stewards of the land to wisely produce food, fiber, and fuel. Understanding how plants work allows farmers to do their best in producing crops for us. Farmers know the best time to plant crops, how to keep them healthy, how to keep pests and weeds out of the fields, and the best time to harvest crops.
PROCEDURES:

1. Organize and Prepare Supplies
   See “Materials” on cover page.

2. Background Information
   Plants are part of our everyday life. From the food we eat, to the clothes we wear, to the cars we drive; we can give credit to plants! Plants that are grown for human use, whether it is to eat, to wear, or to use as a power source, are called crops. Agriculture and farmers work to provide crops for us!

3. Interest Approach
   Ask the students: What do you think happens when a seed gets planted into the ground?
   Expected responses: grows, needs to be watered, turns into a plant, etc. We know that seeds need to be planted, watered, and given sunlight to grow, but what does it look like? The dry seed absorbs water, the seed coat breaks open, and a small plant emerges, this is called germination. Write the word “germination” on the board and the definition.

4. Conduct Activity
   This activity has each student create a small “farm” where they can see different seeds germinate. The “farm” is a clear plastic glove with a cotton ball in each of the fingers. A seed gets placed on the moist cotton ball and the glove gets hung in a window. The students monitor the glove to watch as the seeds germinate.
   a. Distribute Farming in a Glove Packet to students.
   b. Distribute the supplies.
      • Per student: 1 glove, 4 cotton balls, 4 seeds, 1 piece of yarn, 1 permanent marker
      • Per every 4 students: 1 small cup of water
   c. Students follow procedure on page 1, “Instruction Sheet”.
      • Write their name on the thumb of the glove in permanent marker.
      • Write the name of the seeds that will be planted on each finger of the glove in permanent marker.
      • Carefully dip a cotton ball in water. Squeeze out the excess water and flatten it out. Do this for 4 cotton balls.
      • Place a wet cotton ball in each of the four fingers of the glove.
      • Carefully place one corn seed, one soybean seed, one dry edible bean, and three wheat seeds in the correct finger.
      • Tie the top of the glove with the piece of yarn to keep the moisture inside the glove.
      • Hang the glove in the window of the classroom.
   d. Monitor and assist students as needed.
   e. Students complete page 2, “Farming in a Glove—Worksheet”
   g. At the conclusion of twelve days, students complete page 5, “Farming in a Glove—What I Learned”.

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5. Ask Follow Up Questions and Make the Connection to Agriculture.
   • What were the predictions at the beginning of the experiment? *Answers will vary.*
   • What changes did occur? *Answers will vary.*
   • What things did we learn by watching our farm glove? *Answers will vary.*
   • Why is plant growth important to us? *We need crops to feed animals to provide many of our basic needs. Farmers strive to be good stewards of the land to wisely produce food, fiber, and fuel. Understanding how plants work allows farmers to do their best in producing crops for us. Farmers know the best time to plant crops, how to keep them healthy, how to keep pests and weeds out of the fields, and the best time to harvest crops.*
Farming in a Glove Packet

By: ________________________________________  Today is: ________________________________________

Instruction Sheet

My farm is a clear, plastic glove.
I will use 4 different seeds, such as soybeans, corn, wheat, and dry edible beans.
I wrote the name of the seeds that I will plant on the fingers of my glove using a permanent marker.
I wrote my name on the thumb of the glove using a permanent marker.

I carefully dipped a cotton ball in water. I squeezed out the excess water and flattened it out.

Next I will place a wet cotton ball in each of the fingers.
Then I will carefully place one corn seed, one soybean seed, one dry edible bean, and three wheat seeds in the correct finger.

After placing the cotton ball and seeds in the glove, I tied the top of the glove with a piece of yarn to keep the moisture inside the glove.
Then, I hung my glove in a window or special place in the classroom.

The glove will be alive with growing sprouts.
I will document each seed’s growth by writing and drawing in my daily journal.
Farming in a Glove—Worksheet

I planted 4 different kinds of seeds. They are:

1. ________________________________
2. ________________________________
3. ________________________________
4. ________________________________

I will label this glove to match mine.

My predictions are:

1. I think ___________________________ seeds will start growing first.
2. I think it will take ____________ days for the first seed to start growing.
3. I will draw what I predict the seeds will look like on day 12 below.
Farming in a Glove—Daily Journal

I will document each seed's growth by writing and drawing about their progress each day for 12 days.

Day #1  I planted ____________ different seeds.

Day #2  ___________________________________________________________
          ___________________________________________________________
          ___________________________________________________________

Day #3  ___________________________________________________________
          ___________________________________________________________
          ___________________________________________________________

Day #4  ___________________________________________________________
          ___________________________________________________________
          ___________________________________________________________

Day #5  ___________________________________________________________
          ___________________________________________________________
          ___________________________________________________________

Day #6  ___________________________________________________________
          ___________________________________________________________
          ___________________________________________________________
Farming in a Glove—What I Learned

By: ________________________________  Today is: _____________

Three things I learned from my Farming in a Glove are:

1. ______________________________________________________________________________________
   ______________________________________________________________________________________

2. ______________________________________________________________________________________
   ______________________________________________________________________________________

3. ______________________________________________________________________________________
   ______________________________________________________________________________________

Here is what the results looked like:

[Image of a drawn glove]