A Planting We Will Go (extended)

Objectives:

Students will!

· Understand that with the proper care and ingredients seeds become new plants

· Plant and observe their own watermelon seeds

· Handle soil, water, and seeds

· Learn the basics of plant care

Educator Notes:

· Prior to this activity, have students bring in/save milk cartons, egg cartons, yogurt cups, etc. to use as planting containers

· Keep in mind that it may take up to 10 days for the seeds to sprout after planting

· Remind students not to touch their faces or eyes since they will be handling dirt and soil

· Have students wash their hands thoroughly after planting

· Create a rotating chore schedule so that all students have the chance to monitor and water the planted seeds as needed

Background Info:

· All seeds need the **same** ingredients in **different** amounts to grow into healthy plants: air, water, food, light, and a unique ideal temperature:

o Broccoli grows well in cool places while melons like heat

o Too much heat and light will spoil lettuce, but tomatoes need a lot of both

· Seeds belonging to different plant species sprout at different speeds. Watermelon seeds, corn, cucumber seeds, and lettuce seeds grow the fastest.

· When seeds are first planted, they grow best in warm, moist environments. The top of a refrigerator is an ideal place to start seedlings. Once they show signs of germination, move them to a well-lit area.

Materials:

· Planting containers (milk cartons, egg cartons, yogurt cups, etc.)

· Small pebbles

· Watermelon seeds

- Commercial seed-starting potting mix
- Small cup or container for scooping the potting mix
- Spray bottle filled with water
- Plastic tray
- Newspaper
- Permanent markers
- Nametags

Preparation:

Gather the above materials and organize them at several, newspaper covered stations in the classroom. The potting soil should be kept in one location for ease of clean up. Create a nametag for each student.

Key Vocabulary:

soil | seed | sprout | seedling

Activity:

Start the activity by asking students if they have ever gardened or planted. If so, what did they plant? Flowers, fruit, vegetables? Who did they plant with? Was it easy, hard, fun? Encourage students to brainstorm what seeds might need in order to become healthy plants (i.e. air, food, soil, water, sunlight, etc.), and record their ideas on a board or sheet of butcher paper. Explain to the students that they will have a chance to grow their own watermelon plants.

TEACH 1:

Invite the students to gather around one table to observe the planting process. Begin by placing a 1-inch layer of gravel on the bottom of the demonstration cup, followed by a 2-inch layer of potting soil. Create four small depressions, each a ! inch deep, in the soil using a finger. Gently drop one watermelon seed into each hole and cover with soil. Use the spray bottle to moisten the soil evenly.

TEACH 2:

Assign a small group of students to each station. The teacher should give each student his/her nametag and have the students attach the labels to their individual containers. Lead the students through the planting process demonstrated in Teach 1. Circle the room and provide help as needed. After the students have planted their seeds, spray each container until damp.

Explain to the students that they will have the chance to water the seeds in the coming days.

TEACH 3:

Have students place their containers in the plastic tray and tell them that the seeds will spend their first few days on top of the refrigerator to stay warm. Once they show signs of growth, they will be moved to a place that gets plenty of sunlight. Organize and explain the chore chart so that all students have a chance to look at and water the seeds over the next week.

Wrap-Up:

At the end of the lesson, students should have a basic understanding of the planting process and plant care. Ask the students how long they think it will take for the seeds to begin growing. After a short brainstorming session, let them know they should begin to see sprouts within a week. Using the chore chart, have students water the seeds (under adult supervision) as needed over the next several days. The soil should stay damp but never be fully saturated. Once the seeds show signs of growth, place them near a window for optimal light exposure.

Follow-Up:

Once the seedlings have grown for two to three weeks, the students can decorate their containers and bring the plants home. Ask each student to share one fact about plants, planting, and/or gardening that he/she will tell family and friends at home. Remind students to water the plants regularly and give them plenty of sunlight.

Extension Activity (K-5):

Older students can observe their seeds daily and record changes and observations in personal journals. This lesson also can be used to teach basic measuring skills. Once plants grow to the top of the cup, students can measure and track their plants' height growth using string and rulers. To explore where and how plants grow best, seedlings can be placed in various locations (i.e. refrigerator, dark cabinet, window sill), with and without water to teach students what conditions are optimal for plant growth.

Sources:

http://www.csgn.org/images/pdf/SeedMagic.pdf

http://www.sciencekids.co.nz/sciencefacts/plants.html

http://www.learnnc.org/lp/pages/3299

http://www.kidsgardening.com/Dig/digdetail.taf?Type=Art&id=2239#6