

Garden in a Glove

Brief Description: Learn the process of germination through a fun activity. Garden in a Glove allows students to track the germination process, learn what a seed needs in order to germinate and what the plant needs to thrive.

Objectives: Students will be able to describe the germination process of a seed. Students will be able to list what a seed needs in order to germinate.

Materials: Clear plastic glove, five cotton balls, various seeds, water spray bottle, tape

Background: Seeds remain dormant or inactive until conditions are right for germination. All seeds need water, oxygen, and proper temperature in order to germinate. Some seeds require proper light also. Some germinate better in full light while others require darkness to germinate.

When a seed is exposed to the proper conditions, water and oxygen are taken in through the seed coat. The embryo's cells start to enlarge. Then the seed coat breaks open and a root or radicle emerges first, followed by the shoot or plumule that contains the leaves and stem.

After germination, the plant needs sunlight, moisture, air (carbon dioxide) and nutrients to survive.

Activity:

1. Place one moist cotton ball in each finger of the clear plastic glove.
2. Place 2-3 seeds on each cotton ball.
3. Label the seeds and students name on the glove.
4. Tape the glove to a window or well lit surface.
5. Water with spray bottle as needed.
6. Record observations or keep a plant diary.
7. Transplant after 1-2 weeks into growing medium.



Garden in a Glove Science Standards	
SC.1.E.6.1	Recognize that water, rocks, soil, and living organisms are found on Earth's surface.
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.
SC.2.E.6.3	Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.
SC.3.L.14.2	Investigate and describe how plants respond to stimuli (heat, light, gravity), such as the way plant stems grow toward light and their roots grow downward in response to gravity.
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.