

# Garden in a Glove: “Planting A Salad”

## Brief Description

Learn the process of germination through a fun activity. The Garden in a Glove allows you to track the germination process.

## Objectives:

The student will be able to:

- Describe the germination process of seed.

## Sunshine State Standards:

Grades K-2:  
SC.F.1.1; SC.G.2.1

Grades 3-5:  
SC.G.1.2; SC.H.1.2

## Materials Needed:

- Clear Plastic Glove
- 5 cotton balls
- Seeds
- Pencil
- Tape or magnets

## Preparation:

- Have all of the ingredients set up and ready to mix.

## 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.

Information used from:

<http://www.urbanext.uiuc.edu/gpe/case3/c3facts3.html>

## Activity:

1. Select a clear plastic glove and write name on it.
2. Wet five cotton balls. Wring out, they do not have to be soaking wet.
3. Dip cotton balls into seeds or simply place 3 to 4 seeds on each cotton ball. You may want to keep track of which seed is in which finger.
4. Put cotton ball with seeds attached into each finger of glove.  
**Hint:** You may have to use a pencil to get the cotton ball all the way to the tips of the glove fingers.
5. Tape to windows, chalkboard or wall—as appropriate, clothes' lines can be put under chalk trays and clothes' pins can hold gloves on it. If used at home, magnets can hold glove to refrigerator.
6. Seeds will germinate in 3 to 5 days.  
Keep a plant diary. Look under microscope.
7. Transplant after 1½ to 2 weeks.  
Cut bottom of glove's fingers and transplant cotton ball and small plants.  
Transplant into almost any medium such as soil or sphagnum moss.

## Extensions:

Pizza Garden  
Seed Necklace (Appendix A)

## Evaluation:

Have the students develop a sequential map illustrating the different steps in the germination process.

## Garden in a Glove: “Planting A Salad”

1. Observe the seeds to determine when germination has occurred. Record date seeds are placed in glove and number of days taken to germinate.
2. After transplanting seedlings, measure the growth weekly and chart the growth of the seedling until maturity.
3. Compare class data and create a graph showing which student’s plant grew fastest, tallest, slowest, etc. Discuss the elements which could affect the growth of a plant.
4. Using the measurement and time information from your records, calculate an average growth rate of each plant.
5. Research where the vegetables you grew for your salad are normally produced. Which ones are grown in Florida? Where in Florida are most vegetables grown?
6. Tomato production in Florida has decreased significantly over the past 5 years. Research some of the reasons why.
7. Write a persuasive essay telling why you think it is or is not important that Florida continues to produce fresh vegetables. Include examples such as economy, food safety, food quality and the environment to support your opinion.
8. Discuss the use of pesticides and fertilizers on vegetable crops. Contact the county extension office for information regarding specific pesticide and fertilizer application methods and regulations.
9. Observe the fresh vegetable section of the grocery store. How are the vegetables packaged or not packaged? What advertisements are in the store for the fresh vegetables?