

Living Necklaces

Description: What does it take for a bean to grow? Create a fun and interactive necklace that allows you to watch it take place.

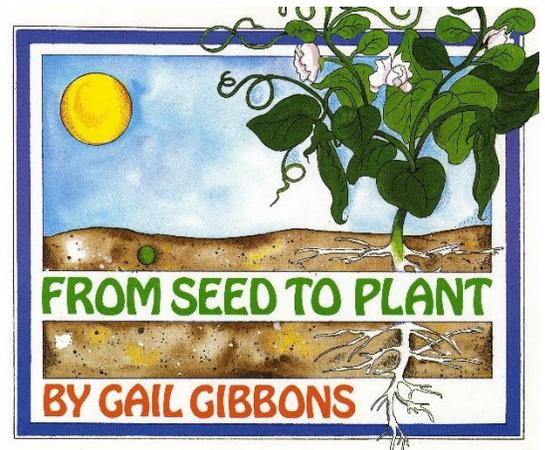
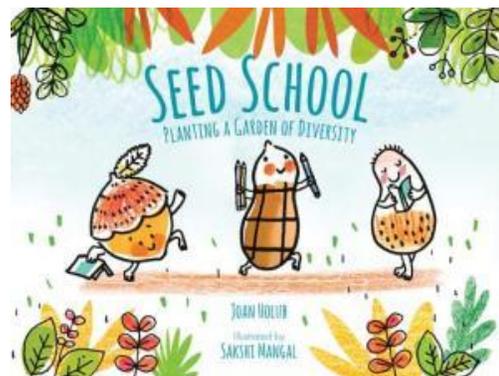
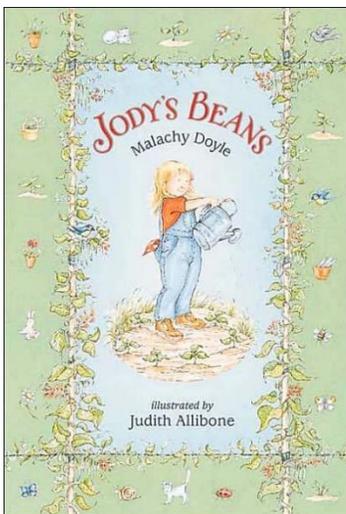
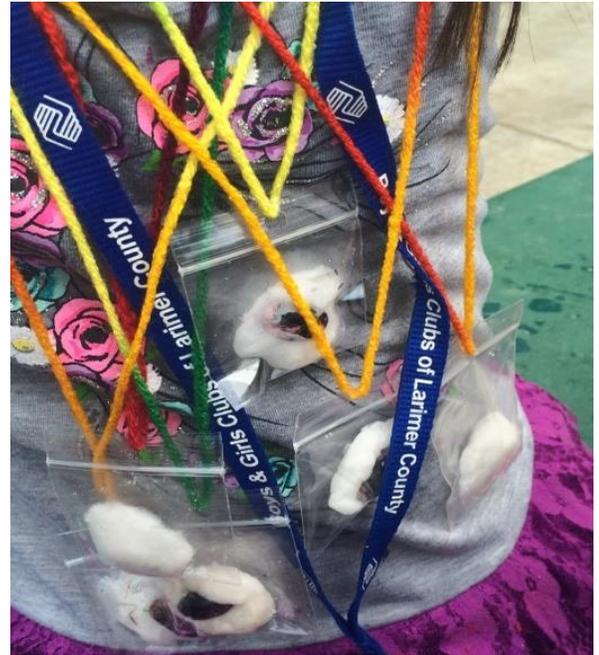
Time: 10-30 minutes

Materials:

- Jewelry bag (or small zipper plastic bag)
- Yarn - 30" length per child
- Cotton ball
- Bean
- Water in squirt bottle or medicine dropper
- Hole puncher

Good Books:

- *Seed School* by Joan Z. Holub
- *From Seed to Plant* by Gail Gibbons
- *Jody's Beans* by Malachy Doyle



Vocabulary:

Germination: The process in which a seed emerges after a period of dormancy.

Cotyledons: The meaty part of the seed that provides the nutrients to the baby plant.

Embryo: The beginnings of the plant usually contained in the seed.

Introduction:

Learn what a seed needs to germinate. A seed is alive! It needs water, soil (or cotton in this case to hold the moisture), the appropriate temperature, air or carbon dioxide. Most seeds are not affected by light or darkness, but some seeds, including species found in forests, will not germinate until an opening in the canopy allows sufficient light for growth of the seedling.

Directions:

1. Start with an introduction of what seeds need to grow.
2. Fluff a cotton ball up and place it in the small plastic bag
3. Place the bean seed in the middle of the cotton ball in the bag.
4. Squirt several squirts of water into the bag so it is moist but not swimming in water.
5. Seal the jewelry bag tight to ensure the water doesn't evaporate.
6. If your bag doesn't already have one, punch a hole at the top of the bag above the zipper.
7. Thread a piece of yarn through the hole at the top of the bag and tie the ends to make the necklace.
8. Each student may wear their "living necklace" and the seed will sprout in three to five days.
9. Remind children that their body heat is helping the seed grow, so it needs to stay in warm place.
10. After five days open the bag to allow the seedling to get oxygen and add water. You can either plant the seed in soil at this point, or it can live for about two more weeks on the cotton ball, as long as it is provided with water and oxygen.
11. The bean seedlings can be planted in soil, be grown, and finally harvested. The harvested beans can be eaten fresh (green) or dried. The dried beans can also be planted to grow another generation of bean plants.
12. Discuss how humans use plants. Humans use plants as food for people and animals, clothing, medicines, housing, the control of soil erosion, aesthetics, etc.

