

Seed Viewer

Overview: Simple and inexpensive to make, plant bean seeds in clear plastic cups to allow young gardeners to watch seeds sprout and introduce them to the life cycle of plants.

Materials:

- Clear plastic cups (can be washed and reused)
- Construction paper
- Paper towels
- Dried beans (available in the grocery store soup aisle)
- Water



Approximate Time to Complete: 15 minutes to create, 7 – 14 days for observation

Location: Indoor

Ages: Prek – 2nd Grade

Season: All seasons

Instructions:

Prep Work: For younger children, cut pieces of construction paper into rectangular strips to fit inside the plastic cups ahead of time.

1. Help kids place a piece of construction paper inside a plastic cup so that it lines the side of the cup.
2. Ball up a few pieces of paper towels and place them inside the construction paper liner until the cup is full.
3. Let them pick out 3 to 4 dried beans (avoid using any beans that are split) and place them in the cup between the side of the cup and the construction paper liner.
4. Gently water the paper towels in the center until saturated.
5. Place the cup (or cups if you would like to try multiples) on a shelf or windowsill and watch them grow. First you will notice the seed coat expanding (wrinkling) as the seed absorbs water and then the root will start to grow in 2 to 3 days. Water as necessary to keep the paper towel and seeds continually moist (please note, the viewers will not grow well outside because they will dry out too quickly). Seed germination can be impacted if the temperatures are too cold (if you are comfortable, most likely your seeds will be too).

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6. After the roots emerge, the stem and leaves will begin to appear. You can continue to grow your plant as long as you want for observation, however generally seeds that have been sprouted this way do not transplant well out into the garden and they will not be able to go grow to maturity in the cup.

Activity Extension

- **Experiment.** You can extend your fun by experimenting with temperature and water availability. Try placing a couple of the seed viewers in a refrigerator and also see what happens if you do not add water. Additionally, you may want to pair this activity with seed planting outdoors so you can watch plants go through their complete lifecycle from seed to seed.
- **Create a discovery station.** Set up a bin of dried beans for kids to explore on their own. Add measuring cups, spoons and other containers to allow them to measure and sort them. Encourage them to compare textures, colors, sizes and shapes. You can also chart your findings.
- **Make bean art.** Allow kids to make bean mosaics using dried beans, glue and paper.
- **Read related books** such as *Pumpkin Circle* by George Levenson, *Jack and the Beanstalk* (many versions available), *Sunflower House* by Eve Bunting, and *A Seed is Sleepy* by Dianna Aston.



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