



Seedling Science: Do seeds need soil to sprout?

Materials

- One egg carton or plastic Zip-loc bag
- Six cotton balls
- Soil
- 12 seeds

To Do

1. **Start with** a refresher about what plants need to live.

2. **Follow up with:** "What happens if plants do not have soil?"

Children will probably agree that plants need soil, or they will die.

3. **You may want to ask,** "What is germination?" [process in which seeds swell with water and begin to sprout; usually not green yet].

4. **Discuss** with students how plants may have different needs at different times in their life.

Seedlings (young plants) may have certain needs, and mature plants may have others. Now ask,

"Do seeds need soil to sprout?"

5. **Share** the idea that in order for us to answer this question, we need to think and act like a

scientist. A scientist takes a question like this and then conducts an experiment to see what really happens and to gather data or facts. Do Seeds Need Soil?

6. **Start** an experiment that will last a couple of weeks to see if seeds need soil, and to see what happens to seeds if they don't have soil.



7. **Have** students put half of their seeds in some of the wells of the egg carton and cotton balls in the remaining wells. Water the soil and the cotton balls.
8. **Place them** in a space that gives the seed all the other necessities for growth (warmth, light, etc.)
9. **After one week** check on the seeds. What has happened? How many are growing? How tall are the seeds? Do you think there is a difference between seeds in soil and seeds in cotton balls?

YOUR CONCLUSION: