

Plants can grow in various types of soil, but some soils can produce stronger and healthier plants. You can discover which soil is more productive by simply growing your own plants! By creating a graph to compare the growth rate of each plant in different types of soil, you can test which soil helps a plant grow best.

MATERIALS NEEDED:

- Seeds (bean or peanut)
- Cup with a hole in the bottom for drainage or a growing pot
- 4 different kinds of soil (i.e., compost soil, clay, sand, loam like garden/potting soil)



INSTRUCTIONS:

1. Classify the types of soil.
2. Fill and label the cups with the soil type and date.
3. Plant a seed in each cup (follow seed planting instructions if provided).
4. Add water to each cup (enough to moisten the soil but not saturate).
5. Place the cups on a windowsill or under a light source.
6. Create a data table for each cup.

Week 1

Plant growth in clay

Our plant measured _____ cm (day 1)

Our plant measured _____ cm (day 3)

Our plant measured _____ cm (day 5)

Repeat for each type of soil (i.e., plant growth in clay, loam, soil)

7. Observe each plant’s growth daily and document it for 1-4 weeks.
8. Create a graph to demonstrate the weekly growth of each plant.
9. At the end of the experiment, compare the data collected for each plant to determine which soil helped it grow best!

WRITE ABOUT IT!

Do your conclusions have any implications for farmers around the world? If so, what are they?

Students should be able to reach a conclusion that some soils are more suitable for farming than others. The soil in which the seed grew best would imply that the soil would be good for farming that particular type of seed.