

# SCIENCE FAIR CENTRAL

## MAKE. CREATE. EXPLORE.



## HOW DOES YOUR GARDEN GROW

### Testable Question

**Which is the best soil for producing the best tomato crop?**

### Research

In class we have been learning about plants. In our textbook, the chapter on soil said that plants need the nutrients from soil in order to grow. Some soils have a good balance of nutrients, while other soils have the nutrients leached out of them.

### Hypothesis

**If tomatoes are grown using loam soil they will grow better than in clay or sand.**

**Why I think so:** I think this because I have never seen a tomato plant growing on a sandy beach and in my past research I read that some clay soils have the nutrients leached out of them.

### Procedure

1. Plant each tomato seed in a different soil (loam, sand or clay).
2. Place seed just beneath the surface of the soil. Make sure all of the seeds are a healthy green color.
3. Place all the plants in bright sunlight.

**What I changed:**  
*(Independent variables)*

Type of soil

**What stayed the same:**  
*(Controlled variables)*

amount of water and light,  
planting procedure

**What I measured:**  
*(Dependent variables)*

crop yield--number and size of  
tomatoes

**Materials:**

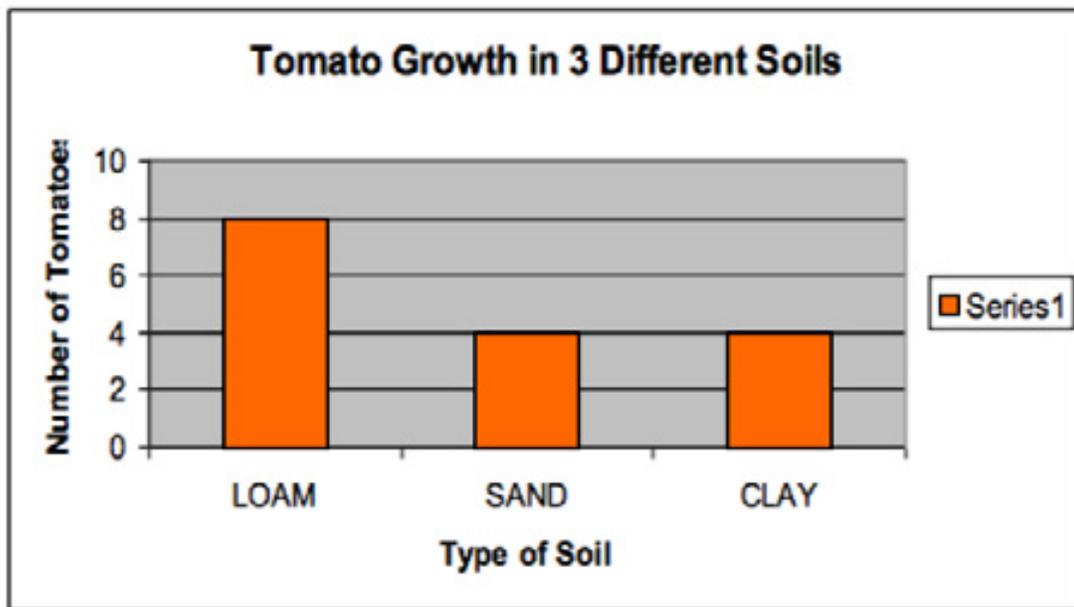
- Tomato seeds
- Water
- Soil
- Light



4. Use .5mL to water the plants every other day.
5. Wait for the tomato plants to grow for a prescribed number of weeks.
6. Count the tomatoes that have grown.

**Data: Tomato Plant Growth in Different Soils**

Trial	Soil	Water	Light	Tomatoes per plant	Tomato size
1	Loam	Medium	Bright	8	Large
2	Sand	Medium	Bright	4	Large
3	Clay	Medium	Bright	4	Large



**Results/Conclusions**

The results of the data collection confirm my hypothesis. Loam soil appears to be the best for growing tomatoes. While in each soil type, the tomatoes were large, there were twice as many tomatoes per plant in the loam soil (8) than in the sand (4) or the clay (4). The loam soil probably had a good balance of nutrients for the tomato plant.

