

Grade 6 Science - Living Systems
Activity #3 - LAB
Planting Seeds

Investigation Question: What do plants need to grow?

Today we will be experimenting to see the effect of sunlight on plant growth. We will also be looking at the benefit of having plants around.

Materials:

- Small plants (seedlings)
- Water
- Measuring cups
- Planting soil
- Plant containers
- Small shovels (trowels)
- Light sources

Hypothesis (Educated guess):

Do you think plants with more or less sunlight will grow more? Why do you think that?

Steps

Changing the light

- Grab 3 small plants, 3 plant containers, enough soil for each container and a trowel.
- Dig a small hole in the soil that gives you enough space to plant the small plant (seedling).
- Once the small plant has been planted, fill in the empty space with the soil from the hole you dug.
- Repeat the steps above for all 3 plants.
- Water each of the plants with the same amount of water so that the soil is moist. (20 ml is suggested but the amount can be modified)
- Once all 3 plants are ready, place them in 3 different locations: 1 plant close to a window or outside to get a lot of sunlight, 1 plant in a location that gets indirect sunlight (Medium sunlight) and one plant in a dark location that doesn't get any sunlight.

- Be sure to continue watering each plant with the same amount of water each day.
- Write down what you see about the plant sizes and health for each plant every day for the next two weeks (or longer if needed).
- **The creation of a classroom garden would be very beneficial for this lab.**

Observations:

Write your observations for the plants with different amounts of sunlight for week 1

| Amount of Sunlight | Day 1 - Height (cm) | Day 2 - Height (cm) | Day 3 - Height (cm) | Day 4 - Height (cm) | Day 5 - Height (cm) |
|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| High | | | | | |
| Medium | | | | | |
| Low | | | | | |

How would you describe the health of each of the 3 plants after 1 week of study?

High Sunlight: _____

Medium Sunlight: _____

Low Sunlight: _____

Write your observations for the plants with different amounts of sunlight for week 2

| Amount of Sunlight | Day 6 - Height (cm) | Day 7 - Height (cm) | Day 8 - Height (cm) | Day 9 - Height (cm) | Day 10 - Height (cm) |
|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|
| High | | | | | |
| Medium | | | | | |
| Low | | | | | |

How would you describe the health of each of the 3 plants after 1 week of study?

High Sunlight: _____

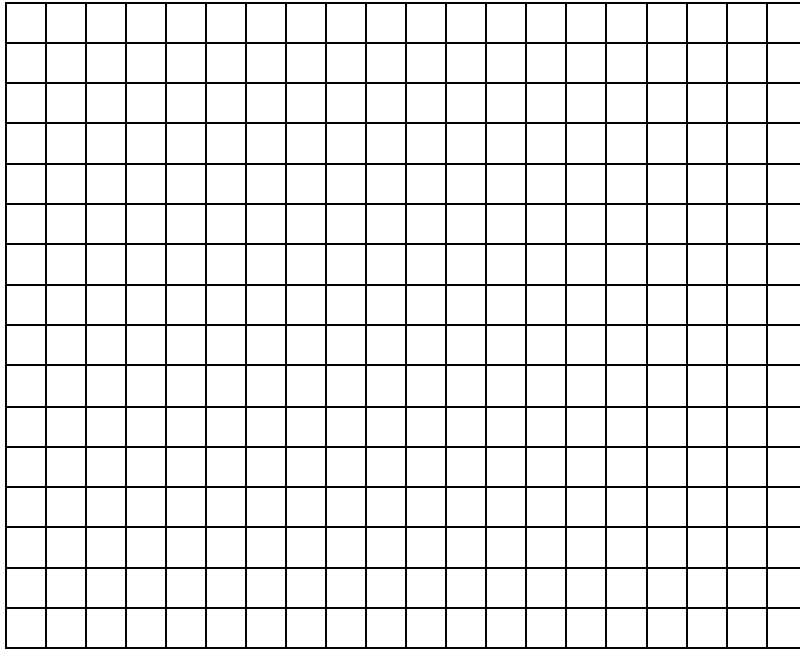
Medium Sunlight: _____

Low Sunlight: _____



Results:

Create a graph to demonstrate your results of the experiment:

**Analysis:**

1. What did you notice about the height of the plants when there was more or less sunlight?
2. What are some of the items in the experiment that stayed the same the whole experiment?
3. Was your original hypothesis correct? Why or why not?
4. How could you improve this experiment for next time?



5. Sunlight helps plants in which process? Is this important for plant growth?
6. What are the benefits from having a garden?
7. If you don't have enough room for a large garden, what are some potential different ways that you can have plants in your home or school?

