



TESTING SOIL pH

FROM DIFFERENT LOCATIONS IN YOUR YARD

Name: _____

Date: _____

Weather: _____

QUESTION

How does soil pH vary in different locations in my yard?

HYPOTHESIS

I think _____
will have the highest pH
because _____

BACKGROUND

Soil pH tells us how acidic or basic (alkaline) the soil is. The pH scale runs from 0 to 14.

- pH less than 7 = acidic
- pH 7 = neutral
- pH greater than 7 = basic (alkaline)

Different areas of your yard may have different pH levels.

pH COLOR GUIDE

	0 – 3	Strongly Acidic
	4 – 5	Acidic
	6	Slightly Acidic
	7	Neutral
	8 – 9	Slightly Alkaline
	10 – 11	Alkaline
	12 – 14	Strongly Alkaline

MATERIALS

- Small shovel or trowel
- 5 clean plastic cups or containers
- Soil pH testing kit (with color chart or test strips)
- Distilled water
- Spoon or stir stick
- Notebook or lab sheet (this sheet)
- Marker

PROCEDURE

1. Choose 4–5 different locations in your yard to test (e.g., garden bed, near a tree, grassy area, flower bed, near the driveway).
2. Collect a small sample of soil (about 1 cup) from each location. Remove large rocks, leaves, and sticks.
3. Label each cup with the location name.
4. Add distilled water to each cup (about 1/2 cup of water for 1 cup of soil).
5. Stir the soil and water mixture and let it sit for 5 minutes.
6. Use your pH test kit to test the soil water from each cup following the kit instructions.
7. Record the pH value and color in the data table below.

DATA TABLE

Sample Number	Location in Yard	pH Value (0–14)	Color Observed	Acidic, Neutral, or Alkaline?	Notes (e.g., soil color, moisture, plants nearby)
1					
2					
3					
4					
5					

ANALYSIS

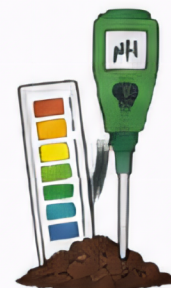
1. Which location had the highest pH? _____
2. Which location had the lowest pH? _____
3. Were your results what you expected? Why or why not?

4. What might cause the pH to be different in each location?

CONCLUSION

What did you learn from this experiment?

How could you improve or expand this experiment?



SCIENCE TIP: Soil pH affects plant growth. Most plants grow best in slightly acidic to neutral soil (pH 6–7).

