Lab Report – Soil pH

Group Members:
Date(s):
Class/Period:
Location(s) of Soil Samples:

Objective

What are you trying to find out in this investigation?
(Write a short statement explaining the goal of this activity — e.g., to measure and compare the pH of soils from different environments and understand how soil pH affects plant growth and nutrient availability.)

Safety Precautions

List at least three safety or hygiene rules you followed during this activity.

1.
2.
3.

Materials Used

List all materials and tools used during your investigation.
(Add any additional materials your group used.)

Procedure Summary
Briefly describe the main steps your group followed to complete the soil pH test.
(Example: We collected soil from three different areas — garden, lawn, and potted plant. Each soil sample was mixed with distilled water in equal parts, stirred, and allowed to settle. We tested the liquid using pH strips three times per location and calculated the average pH.)

Data Collection
Sample Information Table

Sample Location	Soil Description (color, texture, moisture, organic matter)	Trial 1 pH	Trial 2 pH	Trial 3 pH	Average pH	pH Category (acidic / neutral / alkaline)

pH & Plant Suitability Chart
(Use your average pH values to fill in how suitable each soil is for plant growth.)

Sample Location	pH Value	Nutrient Availability (High / Moderate / Low)	Plants That Would Thrive (Examples)

Guiding Questions

1. Did the soil pH match your expectations based on the environment? Explain why or why not.

2. How might soil pH affect nutrient availability for plants? Give one example.

3. Which sample would be most suitable for growing vegetables? Which would be least suitable? Why?

4. What human activities (fertilizers, pollution, land use changes) could influence soil pH over time?

Reflection and Analysis
1. Summary of Findings
Describe what you discovered about soil pH in different locations.

2. Environmental & Agricultural Impacts
Explain how soil pH can affect:
a. Water quality:

b. Soil fertility:

c. Crop productivity:

3. Recommendations
If you were advising a farmer or gardener, what two actions could help maintain healthy soil pH levels?
Recommendation 1:

Why would this help?

Recommendation 2:

Why would this help?

Conclusion
Summarize what you learned about how soil pH affects soil health, nutrient cycling, and plant growth.

Appendix
Attach:
- Photos or sketches of your soil sampling sites and setup
- Completed data tables
- Graphs showing average pH by location (optional)
- Notes on weather or recent soil treatments (fertilizer, rain, etc.)