

Starter Activity

1. Sort the liquids into the correct categories:

- Write the liquids under the correct heading.

Acid	Neutral	Base

Understanding pH

2. What is the pH scale?

- Explain what you have learned about the pH scale.

3. What three categories do we use to classify substances on the pH scale?

- _____
- _____
- _____

Measuring Soil pH

4. Are all soils the same pH? Why or why not?

5. Test the pH of the three soil samples and record your results:

Soil Sample	pH Reading (Colour)	pH Level (Acidic, Neutral, Basic)
Soil Sample 1		
Soil Sample 2		
Soil Sample 3		

6. Why do you think pH is important for plant growth?

Planting Your Bean Seeds

7. We will follow these steps together:

- Place a damp paper towel inside each jar.
- Put two bean seeds between the paper towel and the glass.
- Add equal volume of your assigned liquid (acidic, neutral, or basic) to wet the paper towel.
- Label each jar correctly.

8. Record the pH of the liquids you used:

Jar Label	Measured pH
Acidic	
Neutral	
Basic	

9. Which pH level do you think will be best for the growth of your bean seeds? Why?

Reflection

11. How confident do you feel about today's learning?

Tick in the boxes below

Success Criteria	Red (I need more help)	Amber (Getting there)	Green (I understand well)
I can explain the concept of pH			
I can categorise substances as acidic, neutral, or basic			
I can measure soil pH using pH strips			
I can form a hypothesis about how pH affects plant growth			

Extension Activities

14. Why do you think soil pH is important for plants?

15. What can farmers do to change the soil pH?

Follow-Up Activities

12. Observe your plants over the next week. Record changes in a table below:

[illegible]

Conclusion

16. What did you observe about the growth of the bean seeds in different pH levels?

17. Did the results match your prediction? Why or why not?
