

Audio Conductivity Tester Worksheet

Observations

Demonstration A. Distilled, Tap, and Salt Water

Describe what happened when the electrodes were placed in each solution, respectively.

Demonstration B. Concentration of Electrolyte

Describe what happened when the electrodes were placed in the copper(II) sulfate solution.

Demonstration C. Acids and Bases

Describe the difference in sound of the conductivity tester between the vinegar and ammonia solutions.

Post-Lab Questions

1. Based on your observations in Demonstration A, does pure water conduct electricity? What evidence led you to this conclusion?
2. What effect did adding sodium chloride to the distilled water have on the conductivity of the water? Explain.
3. In Demonstration B, what happened as more copper(II) sulfate dissolved in the solution?
4. In Demonstration C, how did the conductivity of the combined vinegar-ammonia solution compare to each separate solution? What can you infer about the amount of ions present in each solution?
5. Based on your observations, explain what is needed to conduct an electric current in a circuit.