# Precipitation pH Using pH Paper and "Table" Salt

Lab Guide

### *Task*

Measure the pH of your precipitation using pH paper and "table" salt.

### *What You Need*

- ❑ *Integrated 1-Day Data Sheet*
- ❑ Finely ground "table" salt (crystals less than 0.5 mm in diameter)
- ❑ Salt card consisting of 4 mm and 5 mm circles drawn on a card or piece of paper
- ❑ Stirring rod or spoon
- ❑ pH paper
- ❑ 3 clean 100 mL beakers or cups
- ❑ Covered sample jar containing at least 30 mL of rain or melted snow
- ❑ Latex gloves
- ❑ Pen or pencil
- ❑ Distilled water in wash bottle

### *In the Field*

1. Pour a 50 mL (or less if you do not have 50 mL) sample of rain or melted snow from your sample jar into a clean beaker. You must have at least 30 mL of sample to measure pH.
2. Put on latex gloves.
3. Sprinkle salt onto the appropriate circle on your *salt card*. If your rain or melted snow sample is 40-50 mL, use the large 5 mm circle on the *salt card*. If your rain or melted snow sample is 30-40 mL, use the small 4 mm circle.
4. Fill the appropriate circle with a single layer of salt. Remove any excess salt from the *salt card*.
5. Pour the salt covering the circle on your *salt card* into the beaker.
6. Stir the beaker's contents thoroughly with stirring rod or spoon until salt is dissolved.
7. Follow the instructions that came with the pH paper to measure the pH of the sample. Record the pH value on your *Data Sheet*.
8. If you have at least 30 mL of rain or snow left in your sample jar then repeat steps 1-7. Otherwise, repeat step 7. Continue until you have collected a total of 3 pH measurements.
9. Calculate the average of the 3 pH measurements and record on your *Data Sheet*.
10. Check to make sure that each measurement is within 1.0 pH unit of the average. If they are not within 1.0 unit of the average, then repeat the measurements. If your measurements are still not within 1.0 pH units of the average, discuss possible problems with your teacher.
11. Discard used pH paper in a waste container and rinse the beakers and sample jar three times with distilled water.