

# Freshwater Monitoring – pH

Aim: To establish the pH of the water.

Equipment	Method	Things to discuss:
<ul style="list-style-type: none"><li>• pH indicator kit</li><li>• test tube with bung</li><li>• Stream Health Monitoring Data Recording Sheet</li></ul>	<ol style="list-style-type: none"><li>1. Rinse the tube several times in the flowing water.</li><li>2. Fill the tube upstream from you.</li><li>3. Follow the directions on the pH indicator kit.</li><li>4. Record your result on the data recording sheet.</li></ol>	<ol style="list-style-type: none"><li>1. Ask the students if they know what pH is. <i>Scale that measures the acidity and alkalinity of things, goes from 0-14, 7 being basic or neutral. Good measure for streams is between 6.5 and 9.</i></li><li>2. What sorts of things might you have at home that are acids? <i>Vinegar and lemon juice have a pH of about 3.</i></li><li>3. What do these things taste like? <i>Sour!</i></li><li>4. What would be affected by the acidity of water if it changes? <i>Bugs and stream life!</i></li><li>5. What things might result in a change in pH? <i>Different streams will naturally have a different pH depending on the surrounding land use and the catchment. For example a native forest stream has a slightly acidic pH of around 6. A stream running through open farmland will probably have a pH of around 7.5-8. Major problems occur if there are sudden changes in pH such as a chemical spill, or fertiliser sprayed directly into the stream.</i></li></ol>

## Reflect

- What was the pH of your stream? Does that fit between 6 and 9?
- What things can you see and/or think of that might be affecting the pH of the stream?
- What things can people do to make sure that the pH of a stream is not affected?

