Identifying the pH of a solution

The pH of a solution tells us how acidic or alkaline (basic) a substance is. The acidity depends on the concentration of hydrogen ions, written as [H+]. The greater the hydrogen ion concentration, the more acidic the solution (and the lower the pH).

The pH scale (Figure 1) is a 'logarithmic' scale (similar to the Richter scale for earthquakes). This means that every drop in pH value is 10 times more acidic than the value above: a pH of 6 is TEN TIMES more acidic than a pH of 7 (if this is converted to a percentage it would be 1000% more acidic)!

Since the industrial revolution, the pH of the oceans is estimated to have decreased from 8.2 to 8.11.

This may not seem like much, but because pH is logarithmic, this accounts for a 25 to 30% increase in acidity!