Water quality:

A summary of a bunch of different things we can measure about water.

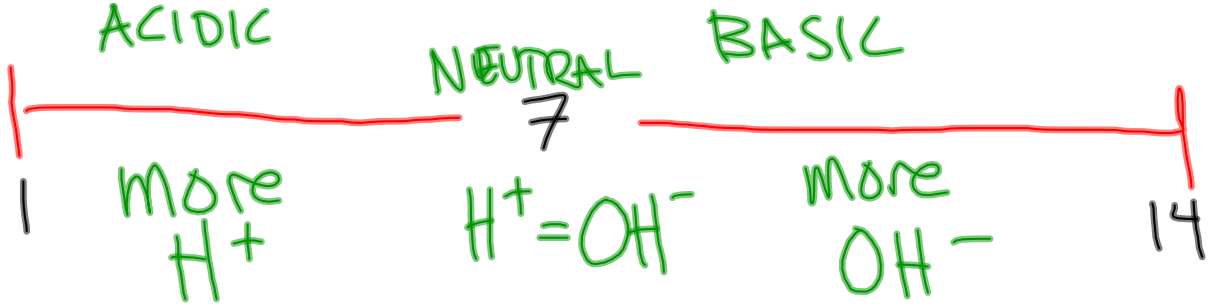
NOT good or bad...

- Physical: temperature, clarity, speed, depth...
- Chemical: pH, dissolved oxygen, pollutants, electrical conductivity...
- Biological: The organisms (including microbes) in the water

pH:

What is pH?

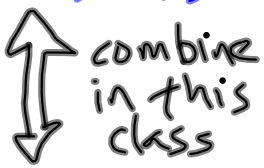
A measurement of the relative amounts of hydrogen ions (H^+) and hydroxide ions (OH^-).



As we add other substances to pure water, the pH changes

How can we measure pH?

- pH sensor – quick, precise (detailed), questionable accuracy & complicated setup



- pH strips – quick, easy (no setup), not precise
- titration – accurate and very precise, time consuming, difficult to set up, not transportable

Why is pH important for water quality?

- Highly basic and highly acidic water is extremely chemically reactive (highly acidic/basic water can react with living tissue)
- Different organisms are adapted to different pH levels
- We usually are concerned with CHANGES IN pH

... temperature, dissolved oxygen, turbidity (clarity)

- What are these parameters?
- How do we measure them?
- Why are they important for water quality?