Units 12 - Acids and bases

Content Area: **Science**
Course(s): **Chemistry CP**
Time Period: **June**
Length: **6 weeks**
Status: **Published**

Transfer Skills

Neutralizing the Opposition: Acids and Bases

Enduring Understandings

The pH can be used to identify the acidity and alkalinity of a solution.

Each solution has its own pH which describes its properties.

Essential Questions

Why do chemists define acid and bases in different ways?

Why is pH important?

Content

Hydronium ion, conjugate acid, conjugate base, amphoteric, pH, titration, amphoteric, Arrhenius Acid and Base, Bronsted- Lowery Acid and base, indicator, neutralization, standard solution, buffer

Skills

Distinguish between an acid and a base.

Use pH to classify a solution as neutral, acidic, or basic.

Determine the point in a titration that neutralization occurs.

Resources

Standards

SCI.9-12.5.2.12.A.2	Account for the differences in the physical properties of solids, liquids, and gases.
SCI.9-12.5.2.12.A.5	Describe the process by which solutes dissolve in solvents.
SCI.9-12.5.2.12.A.6	Relate the pH scale to the concentrations of various acids and bases.
SCI.9-12.5.2.12.B.1	Model how the outermost electrons determine the reactivity of elements and the nature of the chemical bonds they tend to form.
SCI.9-12.5.2.12.B.2	Describe oxidation and reduction reactions, and give examples of oxidation and reduction reactions that have an impact on the environment, such as corrosion and the burning of fuel.
SCI.9-12.5.2.12.B.3	Balance chemical equations by applying the law of conservation of mass.