**Objectives**:

* I can describe properties and uses of acids and bases.
* I can explain the difference between strong acids and bases and weak acids and bases.
* I can identify acids & bases using the pH scale.
* I can test substances’ pH using indicators.
* I can explain what happens to acids and bases when mixed.
* I can compare and evaluate properties of compounds.
* I can explain and evaluate impacts of acids and bases on the natural world.

**Prior Knowledge**: In 2 minutes list all that you know about Acids and Bases

**Vocabulary**:

Ion-

Concentration-

Acid-

Base-

Hydrogen Ion-

Hydroxide Ion-

pH-

Indicator-

Acidity-

Alkalinity-

Neutralization-

Salt-

**Content Questions**:

How is an acid different from a base?

What are 3 properties of acids?

Name 2 acids and their uses.

What are 3 properties of bases?

Name 2 bases and their uses.

Describe two ways you can SAFELY determine whether an unknown solution is an acid or base?

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Describe the pH scale. What is the pH range of an acid? What is the pH range of a base.

How is a strong acid/base different from a weak acid/base?

The pH of a strong base would be closest to?

The pH of a strong acid would be closest to?

The pH of a weak base would be closest to?

The pH of a strong base would be closest to?

Can a strong acid be as harmful as a strong base?

What does neutral mean?

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**Lab Identifying Acids and Bases**: (Create a data table like the one you see on the screen and use it to identify acids and bases.)

Based on our lab results the acids were:

Based on our lab results the bases were:

Based on our lab results neutral substances were:

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**Lab Mixing Acids and Bases**:

What happens when you mix an acid with a base?

What are the products of an acid/base reaction?

What indicators of a chemical reaction would you likely see if you mixed an acid with a base?

What do you call this type of reaction?

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How do acids and bases impact the environment?

How do acids and bases impact your life?