

## Introduction to Acids & Bases: A WebQuest

1. [http://www.visionlearning.com/library/module\\_viewer.php?c3=&mid=58&l=](http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l=)

The word acid comes from the Latin word \_\_\_\_\_ meaning \_\_\_\_\_.

Boyle stated that acids taste \_\_\_\_\_, are corrosive to \_\_\_\_\_, change the color of litmus to \_\_\_\_\_, and become less acidic when mixed with \_\_\_\_\_.

He described bases as feeling \_\_\_\_\_, changing litmus to the color \_\_\_\_\_, and becoming less basic when mixed with an \_\_\_\_\_.

About 200 years later, Arrhenius proposed that water can dissolve many compounds by separating them into their individual \_\_\_\_\_. He suggested that acids contain \_\_\_\_\_ and can dissolve in water to release \_\_\_\_\_. Bases dissolve in water to release \_\_\_\_\_ ions into the solution.

2. [http://www.chem4kids.com/files/react\\_acidbase.html](http://www.chem4kids.com/files/react_acidbase.html)

Every liquid has \_\_\_\_\_ & \_\_\_\_\_ traits. One exception might be \_\_\_\_\_. It is just water. However, the \_\_\_\_\_ ions and \_\_\_\_\_ ions cancel each other out.

3. <http://chemistry.about.com/od/acidsbases/a/acidbaseformula.htm>

Give the formula for the following acids:

Hydrofluoric Acid-  
Hydrochloric Acid-  
Hydrosulfuric Acid-  
Nitric Acid-  
Sulfuric Acid-  
Acetic Acid-  
Boric Acid-

Give the formula for the following bases:

Sodium Hydroxide-  
Potassium Hydroxide-  
Calcium Hydroxide-  
Iron (II) Hydroxide-

4. <http://chemistry.about.com/od/acidsbases/a/acidsbaseterms.htm>

Scroll down to Properties of Acids.

Complete the following sentences for **Acids**

- Tastes \_\_\_\_\_
- Changes litmus from blue to \_\_\_\_\_.
- Solutions are \_\_\_\_\_ (conduct electricity).

- React with bases to form \_\_\_\_\_ + \_\_\_\_\_.

**Neutralization**

- Create \_\_\_\_\_ gas when reacting with an active metal.  
 Five (5) Common acids (scroll down):

Properties of **Bases**

- Tastes \_\_\_\_\_.  
 Feels \_\_\_\_\_.  
 Don't change the color of \_\_\_\_\_.  
 Solutions are \_\_\_\_\_ (conduct electricity).  
 React with acids to form \_\_\_\_\_ + \_\_\_\_\_.

**Neutralization**

- Four (4) Common Bases:

5. <http://chemistry.about.com/od/acidsbases/a/phtable.htm> and  
[http://www.visionlearning.com/library/module\\_viewer.php?c3=&mid=58&l](http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l)  
Scroll down on the site above until you get to the pH scale

Using the sites above, answer the questions below:

- A. pH range of acids \_\_\_\_\_  
B. pH of a neutral substance \_\_\_\_\_  
C. pH of a basic (alkaline) substance \_\_\_\_\_

Use information from the sites above and list the following substances according to pH. The lowest pH should be listed first and the highest base listed last. HCl and NaOH are given as examples.

Substances:

Correct Acid-Base pH list

Pure water

1 HCl

Apples

Ammonia

Lime (Calcium Hydroxide)

Milk

HCl

Vinegar

Baking Soda

NaOH

Human Blood

Lemon juice

Battery Acid

Milk of Magnesia

Rain water

Egg whites

Drano

14 NaOH

6. <http://chemistry.about.com/library/weekly/blacidquiz.htm>

Take the quiz.

Place score here \_\_\_\_\_.

7. <http://chemistry.about.com/library/weekly/bl060603a.htm>

Take the quiz.

Place score here \_\_\_\_\_.