

ACIDS AND BASES WEBQUEST

❖Part 1: Acids and Bases Introduction:

Go to the http://www.chem4kids.com/files/react_acidbase.html and read about acids and bases.

1. Define an acid?

Define a base?

2. How do scientists measure the strength of acids and bases? Describe this scale.

3. Describe the physical properties such as taste and feel of acids and bases.

<http://education.abc.net.au/res/i/L5814/index.html>

Properties of Acids	Neutral	Properties of Bases

- Next, we will take a look at some examples of acids and bases.
- Go to the [VisionLearning Website](http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l) and learn more about the properties of acids and bases.

4. Give 4 examples of acids and 4 examples of bases from the pH Scale on the site.

Examples of Acids	Examples of Bases

❖Part 2: Acid and Base Notes

http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l

1. The word acid comes from the Latin word _____ meaning _____.
2. Boyle stated that acids taste _____, are corrosive to _____, change the color of litmus to _____, and become less acidic when mixed with _____.
3. He described bases as feeling _____, changing litmus to the color _____, and becoming less basic when mixed with an _____.
4. About 200 years later, Arrhenius proposed that water can dissolve many compounds by separating them into their individual _____.
5. He suggested that acids contain _____ and can dissolve in water to release _____.
6. Bases dissolve in water to release _____ ions into the solution.

http://www.chem4kids.com/files/react_acidbase.html

1. Every liquid has _____ & _____ traits. _____ can be both an acid and a base, depending on how you look at it.
2. It can be considered an acid in some **reactions** and a base in others. Water can even react with itself to form acids and bases.
3. Most of the time, the positive and negative _____ in distilled water are in equal amounts and cancel each other out.
4. Most water you drink from the _____ has other ions in it.
5. Those special ions in solution make something acidic or basic.
6. In your body there are small **compounds** called _____
7. The name tells you those are acids. In fruits there is something called _____.
8. A chemist named _____ came up with a way to define acids and bases in 1887.
9. He saw that when you put molecules into water, sometimes they break down and release an _____.
10. At other times, you find the release of an _____
11. When a hydrogen ion is released, the solution becomes _____.
When a hydroxide ion is released, the solution becomes _____.

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

- Give the formula for the following acids:
 1. Hydrofluoric Acid- _____
 2. Hydrochloric Acid- _____
 3. Hydrosulfuric Acid- _____
 4. Nitric Acid- _____
 5. Sulfuric Acid- _____
 6. Acetic Acid- _____
 7. Boric Acid- _____

- Give the formula for the following bases:

1. Sodium Hydroxide- _____
2. Potassium Hydroxide- _____
3. Calcium Hydroxide- _____
4. Iron (II) Hydroxide- _____

❖Part 3: Understanding the pH scale

- SITE #1

https://phet.colorado.edu/sims/html/ph-scale-basics/latest/ph-scale-basics_en.html

Using the simulation, report the pH reading and classify into acid or base

Substance	pH	Acid or Base	Substance	pH	Acid or Base
Drain Cleaner			Orange Juice		
Blood			Battery Acid		
Spit			Soda Pop (Dr Pepper)		
Hand Soap			Vomit		
Chicken Soup			Coffee		
Milk					

5. How do you neutralize an acid? How do you neutralize a base?

1. SITE#2 www.harcourtschool.com/activity/acids By clicking on each one of the test tubes complete the chart below

Test Tube	Litmus paper color	pH	Acid or base?	Substance
#1				
#2				
#3				
#4				
#5				

❖Part 4: pH Calculations NOTES

[pH Calculations](#) Video

* BESURE TO TAKE NOTES AS YOU GO

❖Part 5: ASSESSEMENTS

[pH Scale Quiz](#)

[pH Calculation Quiz](#)