

Acids and bases and metals – Video Test (on-line)

I will have this link on the web page, OR you can go on line . WATCH the Video!

http://www.bbc.co.uk/bitesize/ks3/science/chemical_material_behaviour/acids_bases_metals/activity/

- Which of these acids is most likely to be dangerous? citric carbonic hydrochloric
- Which statement about bases is true?
they are all alkalis they can neutralize acids they are all soluble
- Which statement about alkalis is true?
they are all bases they cannot neutralize acids they are all insoluble
- What happens to litmus paper in acidic solutions?
red litmus turns blue blue litmus turns red yellow litmus turns green
- Universal indicator solution is usually green to begin with. What does this mean?
It is: acidic alkaline neutral
- A liquid has a pH of 7.5 -what does this mean? weakly acidic weakly alkaline neutral
- A liquid has a pH of 1 - what does this mean?
it must be sodium hydroxide solution it is strongly acidic it is weakly acidic
- What products are formed when a metal oxide reacts with an acid?
a salt only a salt and water a salt, water and carbon dioxide
- What products are formed when a metal carbonate reacts with an acid?
a salt only a salt and water a salt, water and carbon dioxide
- Farmers use lime to neutralize their soils. What sort of substance is lime?
a base an acid a sharp tasting drink
- Which acid could be used to make ammonium nitrate (a type of fertilizer)?
hydrochloric sulfuric nitric
- Which salt is made when copper oxide and sulfuric acid react together?
Copper: sulfate sulfuroxide sulfide
- Which gas is produced when magnesium reacts with hydrochloric acid?
carbon dioxide oxygen hydrogen

Teach a parent: Today's concept :

Teach your parents about the differences between: acids, bases, salts and indicators.
Help your parent become an expert! Be sure they write what they have learned from your teaching

Parent Response

- _____ I'm not sure my child really understands, therefore, I don't either.
- _____ The concept was explained thoroughly with effective examples he/she created.
- _____ WOW! My child did an exceptional job! It was logically explained,

Parent Signature: _____ Date: _____

Please explain how your student taught you this concept & what you learned

Name _____ Pd _____ Sci # _____

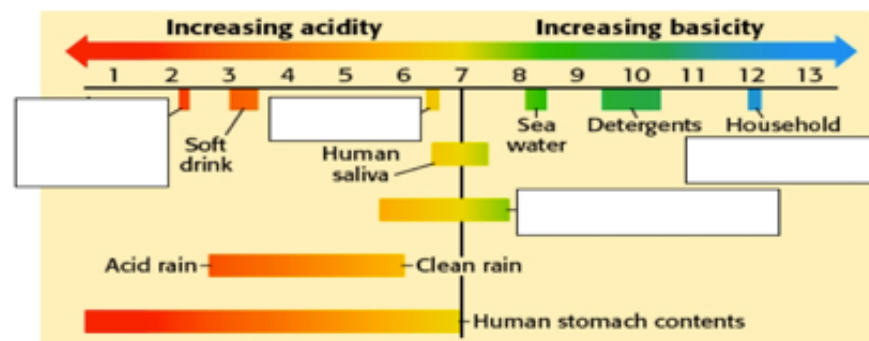
Chp 16: Chemical Compounds Acids, Bases & Neutrals

Draw, color (using the Cabbage in Chem Colors) and label the pH scale

Write examples of what are found in the main sections

pH	Color Based on our lab (color this)	What is it? acid/base/neutral Weak acid/base?	examples
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

Color the pH scale with red, yellow green blue (using pg 404) and fill in the boxes



Chapter 16: page 401-406 Section 2: Acids, Bases & Salts

- An _____ is any compound that _____ the number of _____ ions when dissolved in water, and whose solution tastes _____ and can change the _____ of certain compounds.
- Solutions of acids conduct an electric current because acids break apart to form ions in water. Acids increase the number of _____ in a solution.
- Choose the acid in Column B that best matches each use in Column A.

Column A	Column B
___ treating heartburn	a. ammonia
___ unclogging drains & making soap	b. calcium hydroxide
___ making cement	c. sodium hydroxide
___ household cleaning	d. magnesium hydroxide

- Which of the following are weak acids? Circle your answers
sulfuric acid carbonic acid phosphoric acid citric acid nitric acid hydrochloric acid
- A _____ is any compound that _____ the number of _____ ions when dissolved in water, and whose solution tastes _____, feels _____, and can change the color of certain compounds.
- Why do people take antacid tablets if they have heartburn?

7. Acids & bases _____ one another because the H^+ of the acid and OH^- of a base react to form _____. Other ions from the acid and base are also dissolved in the water. If the water is evaporated, these ions join to form a compound called a _____.

12. What is the pH scale? _____

13. 5 bullet points for Acids Bases Neutrals from your Cabbages in Chem reading

- _____
- _____
- _____
- _____
- _____

Virtual Lab: Alien Juice Bar :Click on the link below from Mrs Gillum's Web page!

<http://www.lawrencehallofscience.org/kidsite/portfolio/alien-juice-bar/>

Challenge 1: Alien Juice Bar

- Click on Challenge 1, then "start".
- Answer the question **WHAT IS AN INDICATOR** below

- Click on the pitcher of cabbage juice & drag towards one of the three drinks. The cabbage juice will pour into a beaker & may or may not change color. Continue until all three drinks have been poured.
- Place the drinks onto the correct shelf above the alien's head. When done, pull the "check me" lever. If you are wrong, the bottles will come off the shelf.
- Show results below.

Drink	Color in Beaker	Acid Base Neutral
Window Cleaner		
Lemon Juice		
Water		

- Click on the pitcher of cabbage juice & drag towards one of the nine drinks. You may pour the cabbage juice to indicate if it is an acidic, basic or neutral drink.
- Continue until all nine drinks have been poured, or you can try to guess the pH of each bottle!
- Place the drinks onto the correct shelf above the alien's head. When done, pull the "check me" lever. If you are wrong, the bottles will come off the shelf – try again until you get them all right!

9. Fill in the table below to indicate where each drink belongs.

Challenge 2: The Flying Cabbage Juice Bar

- Read the directions on the screen & hit "Start".
- Listen to your customers carefully, if you give them the wrong drink, they can get sick or even die & you will lose your license!
- You can test the pH of each drink with the pitcher of cabbage juice & you can also restock the shelf if you run low on drinks. Record results below.

Customer #	They asked for:	You gave:	Sick Customer? Try again	Yummy or dead?
Example	Neutral	Lemon Juice	Water	Yummy!
1				
2				
3				
4				