Name: _____ Date: _____ Period: ____

Unit 3a Concept Map

Week # ____

Atoms are → 1. most basic unit of _____

Atoms that are the same are → 2. _____

for example → Carbon (C) and Oxygen (O)

which combines to form → CO_2

which is a → 3. compound or _____ made of → 4. ____ atoms

another example is → 5. _____ or water

which is → 6. _____, meaning it has an _____ distribution of charge

causing → 7. water molecules to be _____ to each other

Macromolecules

17. _____ for ex: Fats, oils, waxes

18. _____ for ex: DNA, RNA made of nucleotides

19. _____ for ex: Starch, made of sugars

19. → used for 20. _____ and stored as glycogen

21. _____ made of 22. _____

21. → for ex: enzymes that speed up 23. _____

Category	0 drops	5 drops	10 drops	15 drops
Solution A	7.0	6.1	5.2	3.6
Solution B	6.4	6.3	6.2	6.0
Solution C	6.7	5.8	4.6	4.0

What solution is the buffer ?_____

What type of solution is added to eac

A_____

B_____

C_____

Acids and bases

are measured on the 8. _____ where

8. → 14. Acids have a pH of _____ to _____

8. → 15. Bases have a pH of _____ to _____

14. and 15. → 16. All living things resist pH changes by acids or bases because they are _____

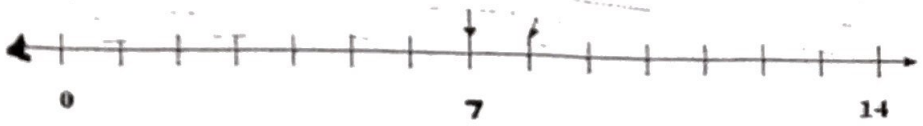
8. → 10. More _____, Less _____

8. → 9. _____

Equal H^+ and OH^- → 11. _____

13. More _____, Less _____ → 12. _____

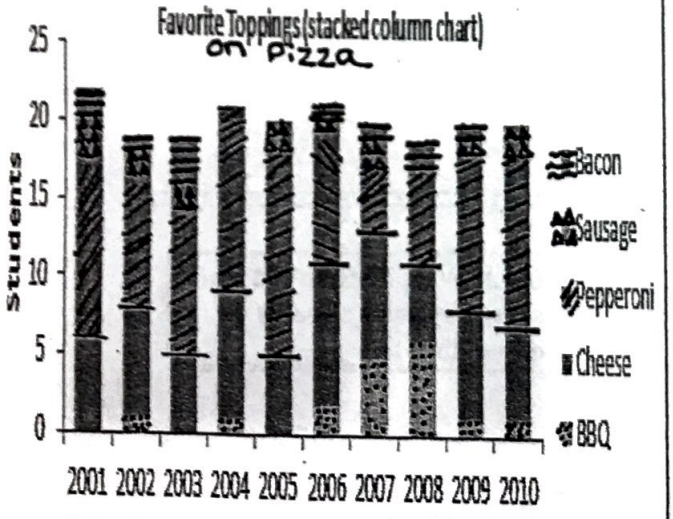
0 — 9. — 11. — 12. — Water



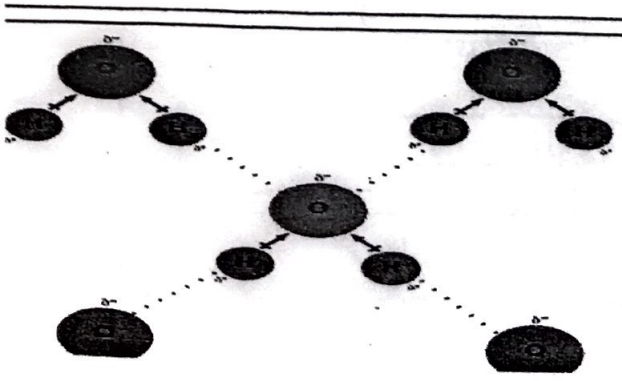
1. A solution that is 1,000 times more acidic than a pure water, what is the ph of the solution? _____
2. A pH of 6 is how many times more acidic than a pH of 12? _____
3. If baking soda has a pH of 9. Bleach is 10,000 more basic than baking soda. What is Baking soda's pH? _____
4. Milk has a pH of 6. Orange Juice is 100 more acidic than milk. What is the pH of Orange Juice? _____
5. Fill in the table below

Compound	# atoms	#elements
$C_6H_8O_6$ (Vitamin C)		
NaOH (Sodium Hydroxide)		
H_2SO_4 (Sulfuric Acid)		
$C_9H_8O_4$ (aspirin)		

6. What macromolecule store energy for later use? _____
7. What macromolecule provides most of your cell's energy? _____
8. One of waters unique characteristics is that it is polar. Why is it a polar molecule? _____
9. Write out the chemical formula for glucose. Explain how the body uses glucose molecules? _____



10. Use the graph below to answer the following questions
    a. In what years was bacon not a preferred student topping? _____
    b. Which year experienced the most students wanting BBQ on pizza? _____
    c. What date/year can describe : 5 Students preferred cheese , 9 students preferred pepperoni, 2 students preferred sausage, 3 preferred Bacon? _____



Use the figure on the left to answer the following questions.

11. How many water molecules are represented in figure 1? _____
12. How many atoms are represented in figure 1? _____
13. Label the covalent bonds on figure 1, label the hydrogen bonds. Which bond is stronger? Why? _____