

Name _____

Period _____

Chemistry Test #2 – Warning: Contains Lame Jokes Use a Periodic Table on This Portion

History

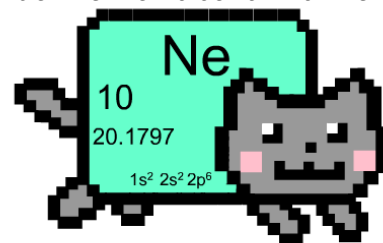
Do chemists tell jokes? Periodically.

1. What was one of the early uses of chemistry? _____
2. What was one goal of the alchemist? _____
3. What did Dmitri Mendelyeev do? _____

Atomic Structure

Yo mamma so ugly even fluorine won't bond with her.

4. How many electrons fit into each of the following:
 - A. First electron orbital _____
 - B. Second electron orbital _____
 - C. Third electron orbital _____

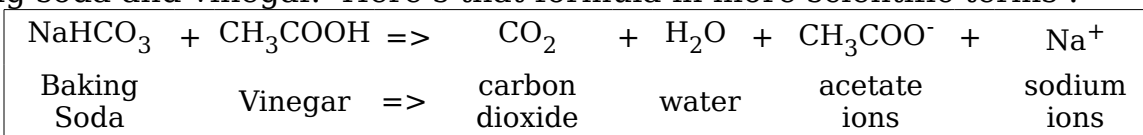


WARNING!

Neon Cat does not bond well
with others.

SO MUCH PUN.COM

Many people's first experience with chemical reactions occurs when they mix baking soda and vinegar. Here's that formula in more scientific terms :



Based on this formula, answer the following questions.

5. What are two of the elements that make up baking soda?

6. What are two elements that make up vinegar?

7. What is the atomic number of sodium (Na)? _____
8. What is the atomic mass of sodium? _____
9. How many protons does sodium have? (Same as atomic number) _____
10. Round the atomic mass of sodium off to the nearest whole number. To discover number of neutrons, subtract the atomic number from the mass.



How many neutrons does the average sodium atom have? _____

*A neutron walks into a bar and orders a drink.
The bartender puts one on the counter and says, "For you, no charge."*

11. Sodium is in family 1A on the periodic table. List two other elements with similar properties. _____

12. We commonly see sodium bound with chlorine. What is a property of chlorine's family? _____

13. What is the atomic number of chlorine? _____

14. When one sodium atom and one chlorine atom bind together, we get table salt.

What is the chemical formula for salt? _____

15. Chlorine is a poisonous green gas. Sodium is an extremely unstable metal. Salt is neither of these things. Please list two physical characteristics of salt. (2)

16. In the last question we talked about how chemical reactions change physical characteristics, but it works in reverse too. Suppose we had an anti-acid tablet. (Alka Seltzer) How would changing it physically change the speed of its reaction (dissolving)?

17. Fill out the following table:

ELEMENT	ATOMIC #	Atomic MASS	PROTONS	NEUTRONS	ELECTRONS
Lithium	3	7 (Round off)	3	4	3
	9		9		
Hydrogen	1	1			
Oxygen					8
	27		27		
Aluminum		27			13
	33				
Gold					79
Uranium		238			92

I know you're probably ready to kill me right now, but it will all be over soon. Really.

18. Draw a Bohr model of a typical boron atom.
Be sure to include the correct orbitals and numbers of sub-atomic particles. (4)

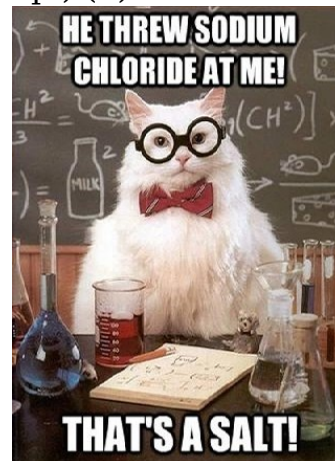
Periodic Table *Two bears go into the lake. Why does the white one dissolve? It's polar.*

19. What is a horizontal row on the periodic table called? _____
20. What is a vertical column on the periodic table called? _____
21. List two traits of family 8A (the one with "He" at the top.) (2)

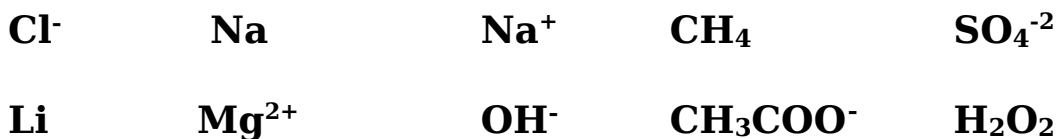
22. What does isotope mean? _____

23. What does ion mean? _____

_____ +



24. Circle the ions:



25. Some elements have Latin names, and a few even have German name or names from other countries. The following elements have unusual names. Determine what the English name for these elements are. Find the symbol and supply the English name :-)

Plumbum (Pb) _____ Natrium (Na) _____

Kalium (K) _____ Ferrum (Fe) _____

Argentum (Ag) _____ Aurum (Au) _____

Wolfranium (W) _____ Cuprus (Cu) _____

Stannum (Sn) _____ Stibium (Sb) _____

26. True or false – Noble gases can have isotopes _____

27. What ion would oxygen form?
28. What ion would potassium form?
29. Give two examples of ionic bonds
30. Give two examples of covalent bonds
31. Water is a polar covalent bond. What is that?
32. What are metallic bonds like?
33. Create Lewis structures of the first ten atoms.



34. Create a Bohr model of carbon. You can abbreviate the nucleus. (4)			35. Create a Bohr model of sulfur. You can abbreviate the nucleus. (4)	