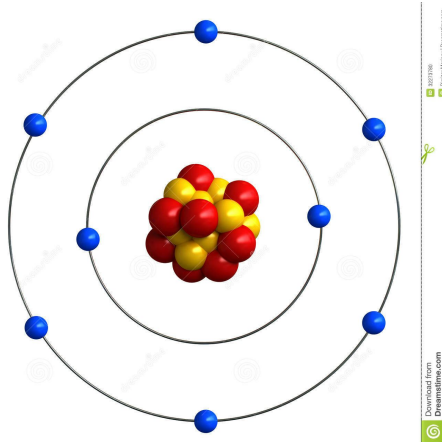


Name: _____ Date: _____

Chapter 2 - Basic Chemistry

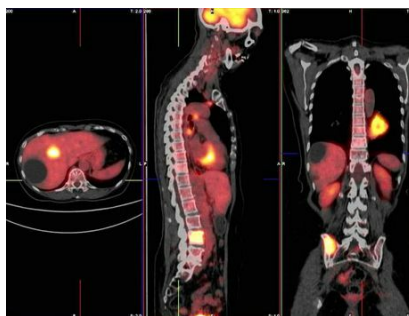
1. What are the building blocks of an atom? (Sub-atomic particles)



2. How do the sub-atomic particles compare to each other?
3. What is responsible for the unique chemical properties of an atom?
4. What is responsible for the chemical reactivity of an atom?
5. How does changing the number of protons change an atom? Neutrons? Electrons?
6. How do you determine the atomic number? Atomic mass?

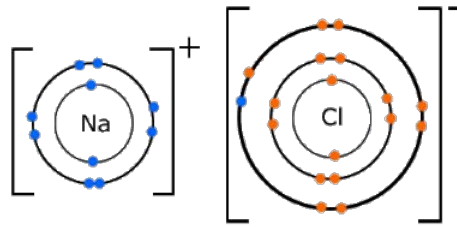


7. What is an isotope?
8. How can we use isotopes as tools in science?



9. Are you familiar with Bohr's model of the atom? Can you draw a sketch of an atom using this model?
10. What are the maximum number of electrons in the first electron shell? Second electron shell? Third electron shell?
11. What is a cation? Anion? How do they form?
12. What is a chemical bond?
13. How does an ionic bond compare to a covalent bond?

14. How can you draw an ionic bond?



15. How do you draw a covalent bond?

16. How many bonds should be around Hydrogen? Oxygen? Nitrogen? Carbon?

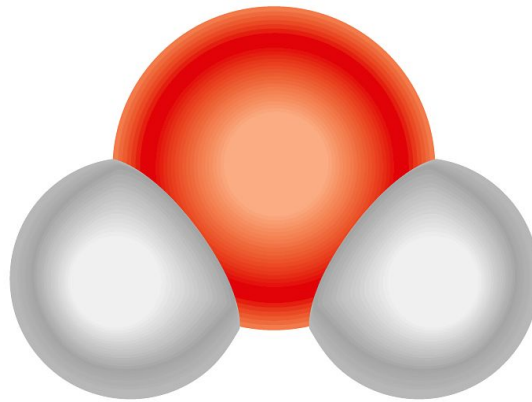
17. Can you draw an appropriate structural formula if given a molecular formula?

18. What's an isomer? Can you sketch one? How is it different than an isotope?

19. What's the difference between an atom, element, molecule, and a compound?

20. Is water a compound? Molecule?

21. What is responsible for water's unique shape?



22. What is Electronegativity and how does it influence the elements that makeup water?

23. Why does Hydrogen have a similar Electronegativity to Carbon if Carbon is bigger and has more protons?

24. What is a Polar Covalent Bond? Non-polar Covalent Bond?

25. Which is stronger a covalent bond or an ionic bond? Why?