Bill Nye - Atoms

1. The middle of the atom is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The two particles in the nucleus are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The heaviest part of the atom is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The particles which have a positive charge are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. The particles which have no charge are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. The particles which have a negative charge are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. Atoms are mostly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The basic building blocks of all matter are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. Atoms combine to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Water can be broken down by passing an electric current through it. What two gasses are produced by the break down of water?
11. What makes one atom different from another atom?
12. What does the atomic number tell you?
13. What is the chemical formula for a) water? \_\_\_\_\_\_\_\_\_\_\_\_\_ and b) salt? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. Atoms are too small to see. How do scientist study atoms and the particles which make up atoms?
15. What two things make up everything in the universe?
16. Give three examples of energy.
17. What is so special about the element carbon?
18. What is Organic Chemistry?

**Parts of an Atom**

**Part 1:** *Label the atom*

**Part 2:** *Answer the following using your periodic table as a guide*

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What part of the atom has no charge?
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What part of the atom has a positive charge?
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What part of the atom has a negative charge?
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_There are the same number of these two particles in an atom.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_The atomic number is the same as the number of these particles.
6. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_The mass number is determined by which particles?

 **Part 3:** *Using the diagram to the right, answer the questions that follow
(Use your periodic table to help you)*

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_How many neutrons does the atom have?
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_How many protons does the atom have?
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_How many electrons does the atom have?
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is the atomic number of the atom?
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is the mass number (atomic weight) of the atom?
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ What atom is this?