**Bill Nye Atoms**

1. Things are made up of \_\_\_\_\_\_\_\_\_\_\_\_\_ pieces of stuff.

 2. “Atoms” is from a Greek word meaning \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. The heavy particles of the atom are in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ particles are on the outside. Atoms are mostly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are found in the nucleus. Their charges are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, respectfully. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ buzz around the nucleus at a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ distance away.

 5. Electrons REPEL each other and move around so fast that the atom acts like a SOLID.

 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ atoms would fit on the head of a pin.

 7. Atoms are the basic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of all matter.

 8. When atoms combine, they can make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. All matter is made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Water is \_\_\_\_\_ parts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_ part \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We know this because water can be split apart by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. To “see” the spaces in matter, add one cup of water and one cup of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The total volume is \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ two cups, since alcohol has a lot of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ between molecules, where water molecules can \_\_\_\_\_\_\_\_\_\_\_

 12. The number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the nucleus makes the atoms different. Elements have been arranged on a \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_. The \_\_\_\_\_\_\_\_\_\_\_\_\_ number represents the number of protons.

 13. \_\_\_\_\_\_\_\_\_ elements occur naturally.

14. NaCl is SALT, C3H5N3O9 is nitro-glycerine used to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

15. Inside protons and neutrons are \_\_\_\_\_\_\_\_\_\_\_\_\_\_. These are studied by a \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Everything in the universe is either \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The smallest pieces of matter are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in every living thing, like us. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chemistry is the study of this element’s compounds.