Types of Matter and Mixtures - Check your understanding!

**True or False?** Answer these questions as a group. Check your answers when done.   
Don’t peek at the answers ahead of time! ☺

1. \_\_\_\_\_\_ Oxygen (O2) is a mixture
2. \_\_\_\_\_\_ Air is a molecule.
3. \_\_\_\_\_\_ An element is made out of only   
    one kind of atom.
4. \_\_\_\_\_\_ The atoms in a pure element are   
    not bonded together.
5. \_\_\_\_\_\_ The atoms in a molecule are not   
    bonded together.
6. \_\_\_\_\_\_ When looking at drawings of a   
    molecule, the “spheres” often   
    represent molecules, & lines or   
    sticks represent the bonds   
    connecting them.
7. \_\_\_\_\_\_ A molecule could be made of the   
    same atoms or different atoms that   
    are bonded together.
8. \_\_\_\_\_\_ Ozone (O3) is made of three   
    oxygen atoms and is a compound.
9. \_\_\_\_\_\_ Water, salt and carbon dioxide are   
    all molecules.
10. \_\_\_\_\_\_ Water, salt, and carbon dioxide are   
     all compounds.
11. \_\_\_\_\_\_ NaCl is made out of four different   
     kinds of atoms.
12. \_\_\_\_\_\_ H2O2 is made up of 2 hydrogen   
     atoms and 2 oxygen atoms.
13. \_\_\_\_\_\_ Ammonia (NH3) is a compound.
14. \_\_\_\_\_\_ A water molecule is in the shape of   
     a triangle.
15. \_\_\_\_\_\_ A carbon dioxide molecule has a   
     single bond.
16. \_\_\_\_\_\_ Bonds are formed when the   
     electrons in the outer shell are   
     shared or transferred.
17. \_\_\_\_\_\_ Atoms are the building blocks of   
     elements, molecules, compounds,   
     and mixtures.
18. \_\_\_\_\_\_ Sodium Chloride, or table salt, is a   
     compound.
19. \_\_\_\_\_\_ Air is a mixture of many different   
     gas molecules.
20. \_\_\_\_\_\_ Pizza is a heterogeneous mixture.
21. \_\_\_\_\_\_ Salt water is a heterogeneous   
     mixture.
22. \_\_\_\_\_\_ A solution is when one substance   
     dissolves in another.
23. \_\_\_\_\_\_ In Kool Aid, water is the solute.
24. \_\_\_\_\_\_ In Kool Aid, the sugar is the solute.
25. \_\_\_\_\_\_ Another word for air is oxygen.
26. \_\_\_\_\_\_ Often when you look at the   
     drawing of a compound, you will   
     notice that there are different   
     colored “spheres” bonded   
     together.
27. \_\_\_\_\_\_ Tap water has many things   
     dissolved in water. This means that   
     tap water is a homogeneous   
     mixture.
28. \_\_\_\_\_\_ Solutions are homogeneous   
     mixtures.
29. \_\_\_\_\_\_ Pure water (H2O) is a compound   
     and a molecule.