

## Atomic Arrangement

### Materials

A bag of gum drops	A box of sealable baggies	A box of toothpicks
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### Legend

Red = oxygen      Yellow = hydrogen      Orange = carbon      Green = sodium  
White = chlorine

### Procedure

- Use red gum drops and toothpicks to make 6 molecules of oxygen ( $O_2$ ) and place in an individual baggie.
- Use yellow gum drops and toothpicks to make 6 molecules of hydrogen ( $H_2$ ) and place in individual baggie.
- Use orange gum drops to represent 6 atoms of carbon (C) and place in an individual baggie.
- Use green and white gum drops and toothpicks to make 6 molecules of salt (NaCl) and place in an individual baggie.
- Use yellow and red gum drops and toothpicks to make 6 molecules of water ( $H_2O$ ) and place in an individual baggie.
- Use orange and red gum drops and toothpicks to make 6 molecules of carbon dioxide ( $CO_2$ ) and place in an individual baggie.
- Make three (3) more salt (NaCl) molecules and three (3) more water ( $H_2O$ ) molecules and place in an individual baggie.
- Make three (3) more oxygen ( $O_2$ ) molecules and three (3) more water ( $H_2O$ ) molecules and place in an individual baggie.

### Questions (Students may use notes from class to help answer these questions.)

1. (10 points per bag) Label each bag as to whether it is an element, compound, or mixture.
2. (10 points) What do the bags you have labeled as elements have in common?
3. (10 Points) What do the bags you have labeled as compounds have in common?
4. (Bonus) What do the bags you have labeled as mixtures have in common?