

# Matter Reading

2/3/12

# Chemical Substance Vocabulary-

USE TEXTBOOK PAGES 158-162 TO COMPLETE 2/8/11

My Survival Words	Rating A,B,C,D	WHY I picked it	Meaning

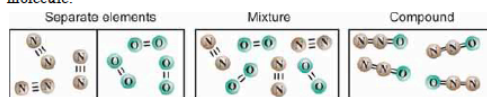
WORD	DEFINITION	PICTURE/ EXAMPLE
COMPOUND		
MIXTURE		
CHEMICAL BOND		
COVALENT BOND		
DOUBLE BOND		
MOLECULE		
CHEMICAL FORMULA		
STRUCTURAL DIAGRAM		

## 8.1 Compounds and Chemical Bonds

Most matter is in the form of compounds. If a substance is made of a pure element, chances are it will eventually combine with other elements to make a compound. For example, water, H<sub>2</sub>O, is a compound made of hydrogen and oxygen atoms. The iron in a nail combines with oxygen in water or air to make a compound called iron oxide, better known as rust. This chapter is about how and why atoms combine into compounds.

### Most matter is in the form of compounds and mixtures

**Compounds and mixtures** A **compound** contains two or more different elements that are chemically bonded together. For example, water (H<sub>2</sub>O) is a compound of hydrogen and oxygen atoms bonded together. A **mixture** contains two or more elements and/or compounds that are not chemically bonded together. The atmosphere is a mixture of oxygen and nitrogen but *not* a compound. Nitrous oxide (N<sub>2</sub>O), is a compound because oxygen and nitrogen atoms are bonded together in a molecule.



### Salt and sugar are compounds

Virtually everything you eat and everything in your kitchen is a compound. Salt is a compound of sodium and chlorine. Sugar is a compound of carbon, hydrogen, and oxygen. Animal and vegetable material are made of even more complex compounds, such as proteins and fats which may consist of hundreds or thousands of atoms.

### Most matter is mixtures of compounds

Most matter is in the form of mixtures of compounds. "Sugar" is actually a compound made up of a chemical bond between two simple sugars: glucose and fructose (Figure 8.1). All sugars taste sweet but fructose tastes much sweeter than glucose. There are thousands of different compounds in a single sample of animal or vegetable tissue.

### VOCABULARY

**compound** - a substance whose smallest particles include more than one element chemically bonded together. For example, water (H<sub>2</sub>O) is a compound of hydrogen and oxygen atoms bonded together.

**mixture** - a substance that includes more than one type of element and/or compound.

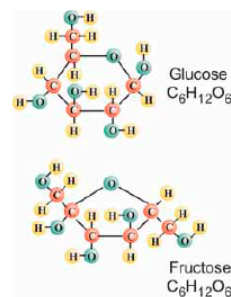


Figure 8.1: "Pure" sugar is a compound made up of two chemically bonded simple sugars: glucose and fructose.