Worksheet: Classification of Matter **Name**_____

I. Fill in the Blanks

A(n) _____ is a pure substance that is made of only one kind of atom. The symbol for a(n) _____ is always one or two letters. When the symbol contains two letters, the first letter is always _____, and the second letter is always _____.

A(n) _____ is a pure substance containing two or more elements that are _____ combined. A(n) _____ is represented by a chemical _____. The elements in a(n) _____ always combine in _____ proportions.

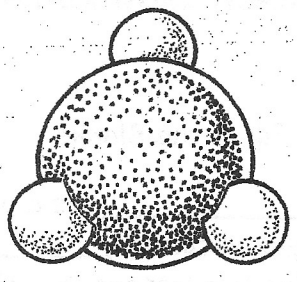
A(n) _____ is made of two or more substances that are _____ combined. A(n) _____ that is uniformly mixed is called _____. A special name for this is a(n) _____. A(n) _____ that is not uniformly mixed is called _____. A special type of mixture that is a solid _____ of two or more metals is called a(n) _____.

II. Classify each of the following as an element (E), compound (C), homogeneous mixture/solution (S), or heterogeneous mixture (HE).

chocolate chip cookie	_____
oxygen gas	_____
salt water	_____
taco	_____
gold	_____
carbon dioxide	_____
water	_____
kool aid	_____
table salt	_____
muddy water	_____
potassium	_____
brass	_____
graphite	_____
glass	_____
air	_____

SUBSTANCES VS. MIXTURES

Name _____



A substance is matter for which a chemical formula can be written. Elements and compounds are substances. Mixtures can be in any proportion, and the parts are not chemically bonded.

Classify the following as to whether it is a substance or a mixture by writing S or M in the space provided.

1. sodium – (Na) _____
2. water – (H_2O) _____
3. soil _____
4. coffee _____
5. oxygen – (O) _____
6. alcohol _____
7. carbon dioxide – (CO_2) _____
8. cake batter _____
9. air _____
10. soup _____
11. iron – (Fe) _____
12. salt water _____
13. ice cream _____
14. nitrogen – (N) _____
15. eggs _____
16. blood _____
17. table salt – (NaCl) _____
18. nail polish _____
19. milk _____
20. cola _____