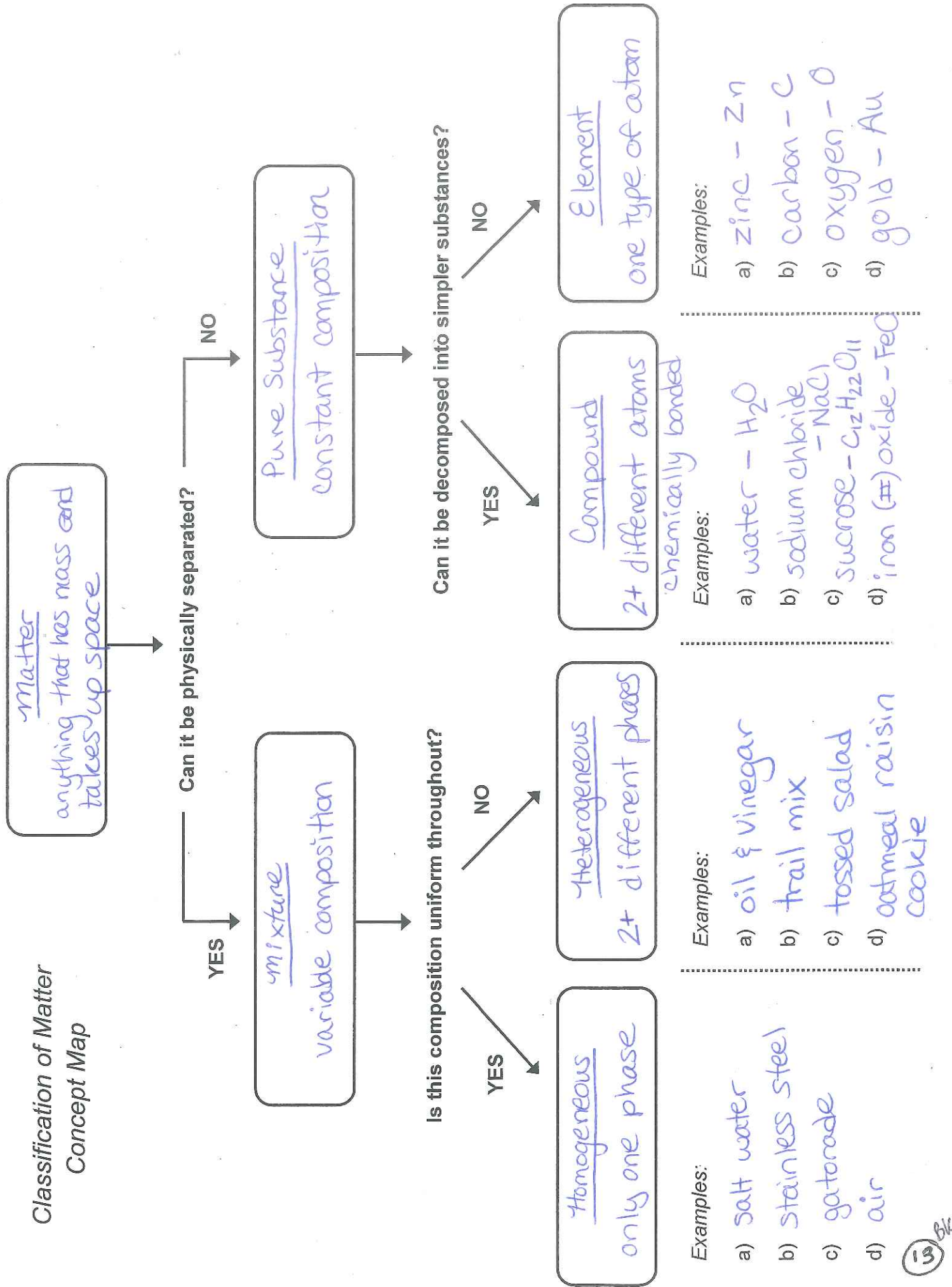
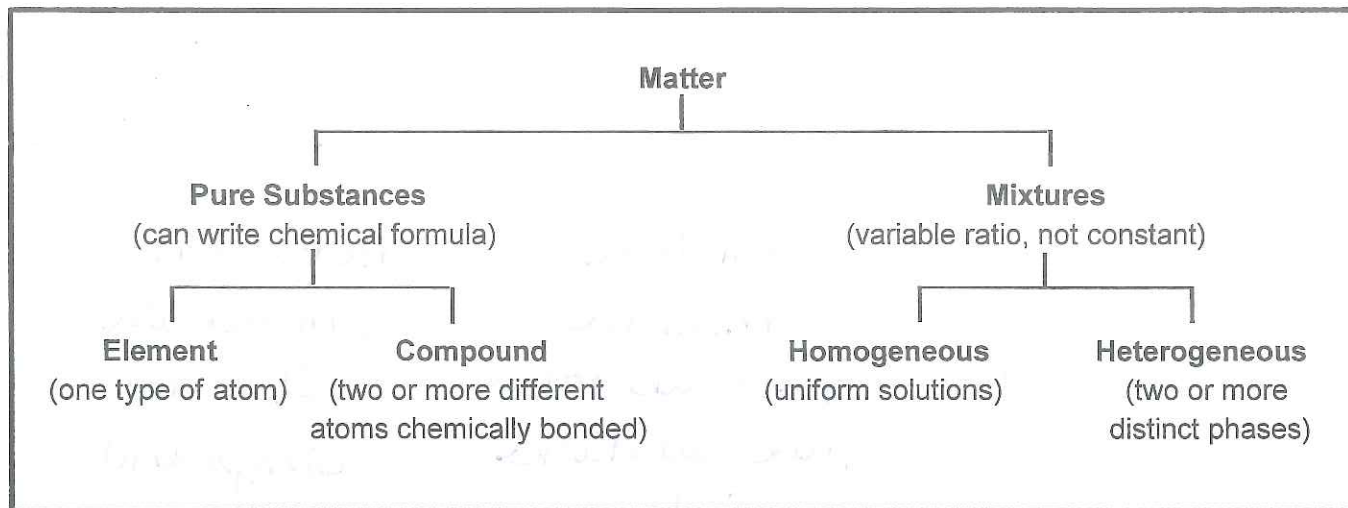


Classification of Matter Concept Map



Pure Substances vs. Mixtures

All matter can be classified as either a substance (element or compound) or a mixture (heterogeneous or homogeneous).



Directions: Classify each of the following as either a pure substance or a mixture. If it is a pure substance, write either *element* or *compound* in the "pure substance" column. If it is a mixture, write either *heterogeneous* or *homogeneous* in the "mixture" column.

		Pure Substance	Mixture
1	chlorine Cl	element	
2	water H₂O	compound	
3	soil		heterogeneous
4	sugar water		homogeneous
5	oxygen O	element	
6	carbon dioxide CO₂	compound	
7	rocky road ice cream		heterogeneous
* 8	rubbing alcohol (solution)		homogeneous
9	air		homogeneous
10	iron Fe	element	

Chemistry: Classifying Matter

Directions: Classify each of the materials below. In the center column, state whether the material is a *pure substance* or a *mixture*. If the material is a pure substance, further classify it as either an *element* or *compound* in the right hand column. Similarly, if the material is a mixture, further classify it as *homogeneous* or *heterogeneous* in the right hand column.

	Material	Pure Substance or Mixture	Element, Compound, Homogeneous, or Heterogeneous
1	concrete	mixture	heterogeneous
2	sugar water	mixture	homogeneous
3	iron filings Fe	pure substance	element
4	limestone (CaCO ₃)	pure substance	compound
5	orange juice (w/pulp)	mixture	heterogeneous
6	Pacific Ocean	mixture	heterogeneous
7	air inside a party balloon "helium"	pure substance	element
8	Aluminum	pure substance	element
9	Magnesium	pure substance	element
10	acetylene (C ₂ H ₂)	pure substance	compound
11	bag of colored M&M's	mixture	heterogeneous
12	rice pudding	mixture	heterogeneous
13	pure water H₂O	pure substance	compound
14	Chromium Cr	pure substance	element
15	chex mix	mixture	heterogeneous
16	Kool-aid drink	mixture	homogeneous
17	benzene (C ₆ H ₆)	pure substance	compound
18	muddy water	mixture	heterogeneous
19	brass (Cu mixed with Zn)	mixture	homogeneous
20	baking soda (NaHCO ₃)	pure substance	compound