Name: Hour:

Lab: Identifying Elements, Compounds, and Mixtures

Directions: Read through the review chart below and answer the pre-lab questions. Then, rotate through the stations, identifying each substance as an element, compound, or mixture. If it is a mixture, be sure to include whether it is **homogeneous** or **heterogeneous**. Be sure to include 3 observations of the substance, and a meaningful REASON for your classification!

Element	Compound	Mixture
• Made of ONE kind of atom (found on the periodic table) • Cannot be separated into any simpler form chemically or physically	• Made of 2 or more kinds of atoms chemically combined in a certain ratio (e.g water molecule is 2 hydrogens and one oxygen atom)	• 2 or more elements or compounds mixed together physically. • Not chemically combined! • Each part keeps its own chemical identity • Can be **heterogeneous** (different throughout) or **homogeneous**. (the same throughout)

Pre-Lab Questions

1. What is the difference between an atom and a compound?

2. How is a heterogeneous mixture different from a homogeneous mixture?

3. How is the way a mixture is combined DIFFERENT from how a compound is combined?

4. What is easier to separate, a mixture or a compound? Why?

5. Which can be found on the periodic table: elements, compounds or mixtures?

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Station Number/ Identity of Substance	Description/Observations	Classification (Element, Compound, Mixture)	How do you know?
1 _____			
2 _____			
3 _____			
4 _____			
5 _____			
6 _____			
7			
8 _____			
9 _____			
10 _____			
11_____			

Name: Hour:

1: Oil and Water (in a beaker): mixture (hetero)
2: Copper Wire: element
3: Chalk ($CaCO_3$): compound
4: Rocks and Sand: mixture (hetero)
5: Water: compound
6: Koolaid (or gatorade): mixture (homogeneous)
7: Aluminum Foil: element
8: Air in a balloon (mixture: homogeneous)
9: chemical (pick an element): element
10: