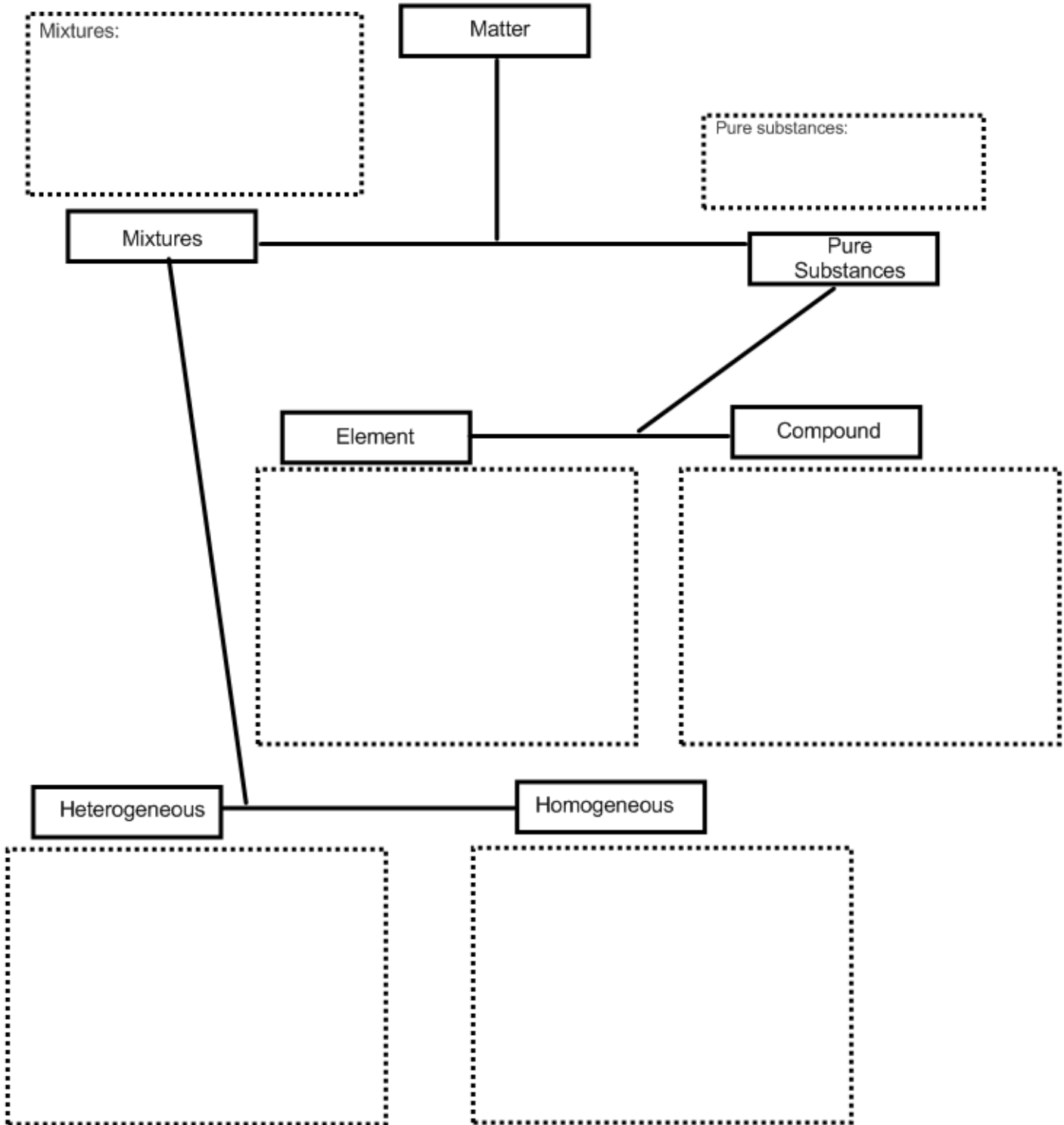


UNIT 2 REVIEW – DESCRIBING MATTER

For the test you need to understand the following terms, but you also need to be able to categorize matter into these terms. Please define each category in the dotted boxes. Include examples of each.



Compare the STATES OF MATTER by filling in the table.

| | Solid | Liquid | Gas |
|--|-------|--------|-----|
| Shape (definite or indefinite?) | | | |
| Volume (definite or indefinite?) | | | |
| Molecular Speed (fast, medium, slow?) | | | |
| Distance between molecules (small, medium, large?) | | | |

What is matter?

Give an example of something measurable that is NOT matter: _____

What is a solution?

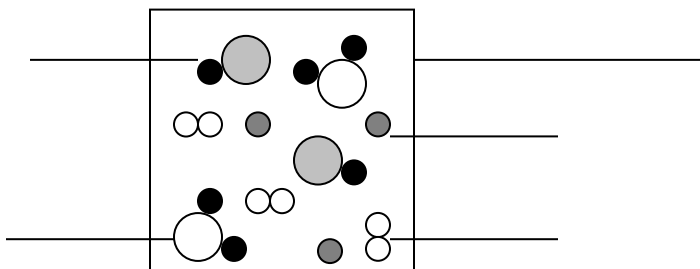
What is a suspension? Is it a heterogeneous or homogeneous mixture?

What is a colloid? Is it a heterogeneous or homogeneous mixture?

Check each choice that is ALWAYS true.

| | Pure Substance | Element | Compound | Type of Mixture? |
|----------------------|----------------|---------|----------|------------------|
| sugar | | | | |
| Salt water | | | | |
| air | | | | |
| Chex - Mix | | | | |
| milk | | | | |
| Vinaigrette dressing | | | | |
| copper | | | | |
| brass | | | | |
| Snicker's bar | | | | |

Label each portion of the diagram as an element, compound, or mixture.



Match the following separation techniques with the appropriate way it is used. The following separation techniques are meant to only separate mixtures via physical means.

Magnetic attraction
Decanting

Sieving
Centrifuging

Filtering

Evaporation
Chromatography

Distillation
Crystallization

1. _____ . Separation of mixtures based on differences in conditions (ex. Boiling point) required to change the phase.
2. _____ . Separation solids from liquids based on densities. Uses centrifugal force to separate denser substance at the bottom and lighter substances at the top.
3. _____ . Separation of a DISSOLVED solid from a solution. Example: boiling salt water, leaving behind salt when water is no longer there.
4. _____ . Separate particles of different sizes by passing through a mesh or a net.
5. _____ . Separate a solid from a liquid. The liquid passes through the filter paper leaving behind the solid particles.
6. _____ . Separation of mixtures on the basis of differences in their affinity for a stationary and a mobile phase.
7. _____ . Separation of mixtures that leaves sediments in the bottom of the container by draining off the liquid.
8. _____ . Separate particles based on magnetic properties.
9. _____ . Separation of a solid- liquid mixture through the formation of solid crystals from a homogeneous solution.

The ONLY way to separate a compound (pure substance) into elements is by HEATING or ELECTROLYSIS.

How do you know a PROPERTY is physical or chemical?

What are some examples of chemical and physical PROPERTIES?

How do you know a CHANGE is physical or chemical?

What are some examples of chemical and physical CHANGES?

Law of definite proportion:

Name four indicators of a chemical change.

1. _____
2. _____
3. _____
4. _____

If 25.0 g of NaOH is added to 33.0 g HCl and 17.0 g of H₂O is produced, what mass of NaCl is also produced?

