Pure Substances & Mixtures Study Guide

Memorize the definition for *pure substance* and *mixture*. Be able to write these from memory.

pure substance: _____

_____

_____

mixture: _____

_____

Be able to match each of these words to their definitions:

atom element compound homogenous heterogeneous solution colloid suspension

_____ a homogenous mixture in which one substance is dissolved in another

_____ a pure substance made up of different types of atoms that are chemically combined

_____ a mixture that has substances within it evenly spread throughout

_____ a heterogeneous mixture in which the particles of material are spread throughout a liquid or gas, but are too large to stay mixed without being stirred or shaken

_____ the smallest unit of an element that maintains the properties of that element

_____ a heterogeneous mixture in which the particles of material are spread throughout a liquid or gas, and are small so they do not settle out quickly

_____ a pure substance made up of one or more of the same kind of atom chemically combined

_____ a mixture that does not have a uniform composition

Be able to use the periodic table of elements to determine if a substance is:

- an element or a compound
- a metal or non-metal
- a solid, liquid, or gas at room temperature

Use your lab sheet "Identifying Elements and Compounds" for examples of what this may look like. Try a few at home, and use your lab sheet as an answer key to check your understanding.

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Based on the labs and reading we have done in class, list some examples of each of these types of substances:

Homogenous Mixture	Heterogeneous Mixture

colloid	suspension	solution

Acids, Bases, and Neutral Componds:

_____ have a pH value less than 7

_____ have a pH value greater than 7

_____ have a pH value equal to 7

_____ turn litmus paper red/pink

_____ turn litmus paper blue

_____ do not change the color of litmus paper, although its shade may darken

Be able to complete a similar matching section on your test, as well as use the information to look at the reaction of litmus paper to determine if a substance is an acid, a base, or a neutral compound.

List the various physical changes that can be used to separate mixtures. Be able to write a plan to separate a mixture that correctly uses one or more of these ideas.

_____

_____

_____

_____

_____

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