

Mixtures Pre-Lab

Name: _____

Mixtures Handout

There are two main types of mixtures:

- 1) **Heterogeneous mixture:** Any mixture that does not have uniform composition throughout the sample. If one part of the mixture looks different than another part, the mixture is heterogeneous.

Examples:

Pulpy orange juice: The pulp and juice are clearly different.

Beans and rice: The beans are easy to distinguish from the rice.

Dirt: You can tell the rocks apart from the grains of sand.

- 2) **Homogeneous mixture:** Any mixture that has completely uniform composition throughout the sample. If you were to take a sample from one part of the mixture, it would have exactly the same composition as a sample from any other part of the mixture. Homogeneous mixtures are also referred to as solutions.

Examples:

Fruit punch: It's a uniformly colored liquid.

Air: It's a perfectly uniform mixture of many gases.

Steel: It's a solid that contains iron and many other elements.

Mixtures Worksheet

Use your knowledge of mixtures to answer the following questions:

1) Classify the following mixtures as being either heterogenous or homogeneous by circling the appropriate word for each example:

a) Pudding **heterogeneous** **homogeneous**

b) Apple **heterogeneous** **homogeneous**

c) Honey **heterogeneous** **homogeneous**

d) Cat **heterogeneous** **homogeneous**

2) Explain the difference between an element, a compound, and a mixture.

3) Is there any way to separate a homogeneous mixture? As an example, describe whether it's possible to separate salt water. If it is possible, explain how. If it's not possible, explain why not.

4) Why is it easier to separate a heterogeneous mixture than a homogeneous mixture? Explain.