

**Classifying Matter**

**Name** \_\_\_\_\_ **Date** \_\_\_\_\_

**Part A Directions:** Below is a list of substances. First classify each substance as either a mixture or a pure substance. Then classify each **mixture** into one of 3 groups; mechanical mixtures, solutions, or suspensions and colloids.

**List of Substances**

Apple juice	raisin bread	ginger ale	liquid nitrogen
Toothpaste	mustard	vinegar	hot chocolate
Vegetable oil	24 karat gold	14 karat gold	sugar
salt	chalk	egg	air

**Pure Substances**

**Mixtures**

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**Mixtures**

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**Mechanical Mixtures**

**Suspensions and Colloids**

**Solutions**

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**Part B Answer the following questions.**

1. Give an example of a mechanical mixture that contains (does not have to be from previous page)

a) 2 solids \_\_\_\_\_

b) a liquid and a solid \_\_\_\_\_

c) 2 liquids \_\_\_\_\_

d) a gas and a solid \_\_\_\_\_

2. Give an example of a solution that contains

a) 2 solids \_\_\_\_\_

b) a liquid and a solid \_\_\_\_\_

c) 2 liquids \_\_\_\_\_

d) 2 gases \_\_\_\_\_

e) a gas and a liquid \_\_\_\_\_

3. Give an example of a suspension or colloid that contains

a) 2 liquids \_\_\_\_\_

b) a liquid and a solid \_\_\_\_\_

c) a gas and a liquid \_\_\_\_\_

4. You are given a bottle of Windex. You know it must be either a solution or a pure substance because it appears to be one substance. What could you do to find out which category it belongs to?

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5. Are there any 2 substances that you could mix together and sometimes get a mechanical mixture and other times get a suspension or solution? Give an example and explain what conditions would cause them to become different type of mixtures.

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