

S8P1. The structure and properties of matter.

a. Develop and use a model to compare and contrast pure substances (elements and compounds) and mixtures.

**Elements, Compounds & Mixtures Activity**



Chemically	2 or more	Element	1 type	Physically
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Another name for a pure substance is an \_\_\_\_\_ like copper, silver, hydrogen, or oxygen. The difference between elements and compounds is that elements or pure substances only contain \_\_\_\_\_ of atom, while compounds contain \_\_\_\_\_ types of elements. The difference between compounds and mixtures is that compounds are substances that can be formed by \_\_\_\_\_ combining two or more elements. Mixtures are substances that are formed by \_\_\_\_\_ mixing two or more substances together.

**Part 1: Determine if the following examples are elements or compounds.**



**Part 2: Examine the gold chart. Answer the questions based upon your chart analysis.**

KARAT RATING	PERCENTAGE OF GOLD PRESENT	PERCENTAGE OF OTHER METALS PRESENT
24	100%	0%
21	91.6%	8.4%
18	75%	25%
14	58.5%	41.5%
10	41.7%	58.3

1. Which type of gold costs the most? \_\_\_\_\_ Why? \_\_\_\_\_
2. Which type of gold costs the least? \_\_\_\_\_ Why? \_\_\_\_\_
3. What is the relationship between the pureness of gold and its price? \_\_\_\_\_

**Part 3: Determine whether the following items are heterogeneous or homogeneous mixtures.**



What is the difference between homogeneous and heterogeneous mixtures. \_\_\_\_\_  
\_\_\_\_\_

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