

Learning Target #1: I can describe and explain the difference between pure substances and compounds.  
Learning Target #2: I can describe and explain the difference between heterogeneous and homogeneous mixtures.

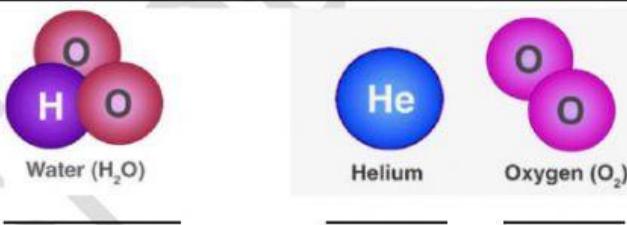
[Elements vs. Compounds & Heterogeneous vs. Homogeneous Mixtures Video Notes](#)



1. A \_\_\_\_\_ substance (\_\_\_\_\_) is pure because it only consists of \_\_\_\_\_ thing. A pure substance or \_\_\_\_\_ cannot be \_\_\_\_\_ into other substances. Another name for a pure substance is an \_\_\_\_\_.

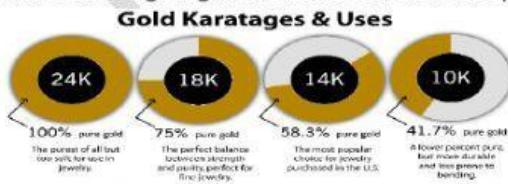
2. A \_\_\_\_\_ is a combination of \_\_\_\_\_ things that can be \_\_\_\_\_ down into other substances.

3. What is the difference between a pure substance (element) and a compound? \_\_\_\_\_



4. Write whether the following substances above are pure substances (elements) or compounds.

Use the following diagram below to answer the questions that follow.



5. Which gold karat is the cheapest? \_\_\_\_\_ Why? \_\_\_\_\_

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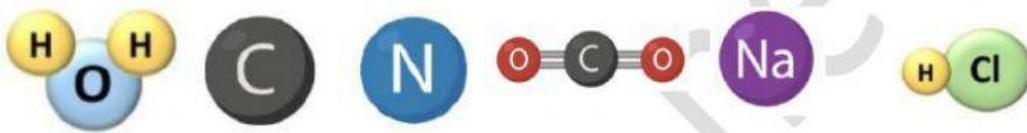
6. Which gold karat is the most expensive? \_\_\_\_\_ Why? \_\_\_\_\_

7. Which of the gold karat is a pure substance/element? \_\_\_\_\_ Which ones are compounds? \_\_\_\_\_

8. Helium and oxygen contain only \_\_\_\_\_ atom. Water contains \_\_\_\_\_ kinds of atoms.

9. Why is water considered to be a compound? \_\_\_\_\_

**Quick Check for Understanding!** Determine if the following are elements or compounds. You have 2 minutes.



10. A \_\_\_\_\_ mixture is a mixture of substances blended so thoroughly that you \_\_\_\_\_ see individual substances. Every sample of the mixture will show the \_\_\_\_\_ amounts of each substance. Homogeneous mixtures can be \_\_\_\_\_ mixtures.

**Quick check for understanding!** Take one minute to write down at least 5 homogeneous mixtures.

11. A heterogeneous mixture is a mixture in which the composition is not uniform or the \_\_\_\_\_ the mixture. Why are vegetable soup and salad examples of heterogeneous mixtures? \_\_\_\_\_

**Quick Check for Understanding!** Take one minute to write 5 other types of heterogeneous mixtures.

12. In summary, pure substances (elements) are made up of only \_\_\_\_\_ of \_\_\_\_\_, while compounds are made up of \_\_\_\_\_ elements chemically bonded together. You cannot \_\_\_\_\_ an \_\_\_\_\_ down any further, but you can break a \_\_\_\_\_ into its individual components. Heterogeneous mixtures are not thoroughly \_\_\_\_\_, so you can see and pick out an \_\_\_\_\_ part of the mixture. \_\_\_\_\_ Mixtures are blended so thoroughly, it looks like \_\_\_\_\_. Homogeneous mixtures are \_\_\_\_\_ or the same throughout their makeup just like \_\_\_\_\_