

Physics Cristina: Mixtures-03.02.

<https://www.youtube.com/watch?v=EXJgFyPnp1Y>

Mixtures can be classified into two types: homogeneous and heterogeneous. Homogeneous mixtures have a *uniform composition* throughout, meaning that the particles are evenly distributed. Examples of homogeneous mixtures include air, sugar water, and vinegar. Heterogeneous mixtures have a *non-uniform composition*, meaning that the particles are not evenly distributed. Examples of heterogeneous mixtures include soil, salad, and cereal.

The properties of homogeneous mixtures include: They have a uniform appearance. They cannot be separated into their constituent parts by physical means. They have a definite composition.

The properties of heterogeneous mixtures include: They have a non-uniform appearance. They can be separated into their constituent parts by physical means. They have a variable composition.

Homogeneous mixtures are also called true solutions. Heterogeneous mixtures are also called suspensions.

In our daily lives, we encounter many different types of mixtures. For example, we drink coffee and tea, which are homogeneous mixtures. We eat cereal and soup, which are heterogeneous mixtures. We use air to breathe, which is a homogeneous mixture. We use soil to grow plants, which is a heterogeneous mixture.

1. What are the two main types of mixtures?
2. What is the difference between a homogeneous mixture and a heterogeneous mixture?
3. Give two examples of each type of mixture.
4. Write one property of homogeneous and heterogeneous mixtures!
5. What do we use soil and air for?

<https://www.youtube.com/watch?v=HnQNkYX0yQY>

Fill in the Blanks: Types of Matter

Instructions: Complete the sentences by filling in the blanks with the correct words. (salad, homogeneous(2), carbon, water (H₂O), mass, heterogeneous(2), pure, mixtures, mixture, element, physical, compound, space, saltwater)

1. Matter is anything that has _____ and takes up _____.
2. The two main categories of matter are _____ substances and _____.
3. A substance that is made up of only one type of atom is called an _____. Examples include oxygen, gold, and _____.
4. When two or more elements chemically combine in fixed proportions, they form a _____. An example is _____, which is made of hydrogen and oxygen.
5. A _____ is a combination of two or more substances that are physically combined but not chemically bonded.
6. The two types of mixtures are _____ and _____ mixtures.
7. A mixture that has a uniform composition throughout is called a _____ mixture, also known as a solution. An example is _____.
8. A mixture in which different substances can be seen and separated easily is a _____ mixture. An example is _____.
9. Unlike compounds, mixtures can be separated by _____ means, such as filtration or evaporation.