**What is Matter Made of?**

* For **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** people tried to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** what **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** was made of.
* Around **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** B.C. a Greek **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** named **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** proposed that it was made up of four elements – **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* This **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** was accepted for more than **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** years.
* Now we know that matter is actually the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** types of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

**Elements**

* Experiments in the late **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** began to show that matter was actually made up of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** than just **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** elements.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** know that all matter in the universe is made of more than **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** different substances called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* An **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** down into any other substances by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** means.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are the simplest **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* All elements have specific **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** properties that help to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** it.
* Elements are represented by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**- or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**-letter symbol called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
	+ C=**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, O=**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, Au=**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, Na=**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Atoms**

* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** explains that all matter is made of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* An atom is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** particle from which all **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are made.
* Atoms **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** charged **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** charged **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Each atom has different **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** due to the differences in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** cloud.

**Molecules**

* Atoms of most **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are able to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** with other **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* When **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** combine, they form a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** bonds are an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** force **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** two **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** combine to form **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** particles called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a group of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** held together by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* For example, water molecules are made up of two **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** atoms that are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to one **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** atom. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that we breathe is a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** atoms.



**Compounds**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are all **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** made of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or more elements that are chemically **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in a set **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Compounds are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chemical Formulas**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** formulas show the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
	+ For example: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**The 2 below the O for oxygen tells you that the ratio of carbon atoms to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** atoms is 1 to 2. If there is no **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** after an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** symbol, it is understood that the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is 1.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** number of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** represent a different **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
	+ For example: The formula for **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. Here the set ratio of carbon atoms to oxygen **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is 1 to 1.
* When elements chemically combine, they form **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** with **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** different from those of the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ For example: When **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** combines with **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** it creates **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. Copper sulfides **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** different from both **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

**Mixtures**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are substances, but most **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is made of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** substances that are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in the same place, but their **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are not **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Mixtures differ from **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. Each **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** keeps its own **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Also, the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** combined in a set **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

**Heterogeneous Mixtures**

* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** mixture is one where you can see the different parts and they can be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** out.
* Sand from the beach is an example of a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** mixture. You can separate out the pieces of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is another example. You can easily **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** pieces of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and other **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

**Homogeneous Mixtures**

* The substances in a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** mixture are so evenly **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that you **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** see the different parts.
* It is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the parts of a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** mixture.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** mixture of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* You know **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is present because you are able to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, but you **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** identify where the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is another example of a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** can be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or even **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Since the substances in a mixture keep their **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, you can use those properties to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** into parts.
* Methods used to separate the parts of a mixture, include **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.



