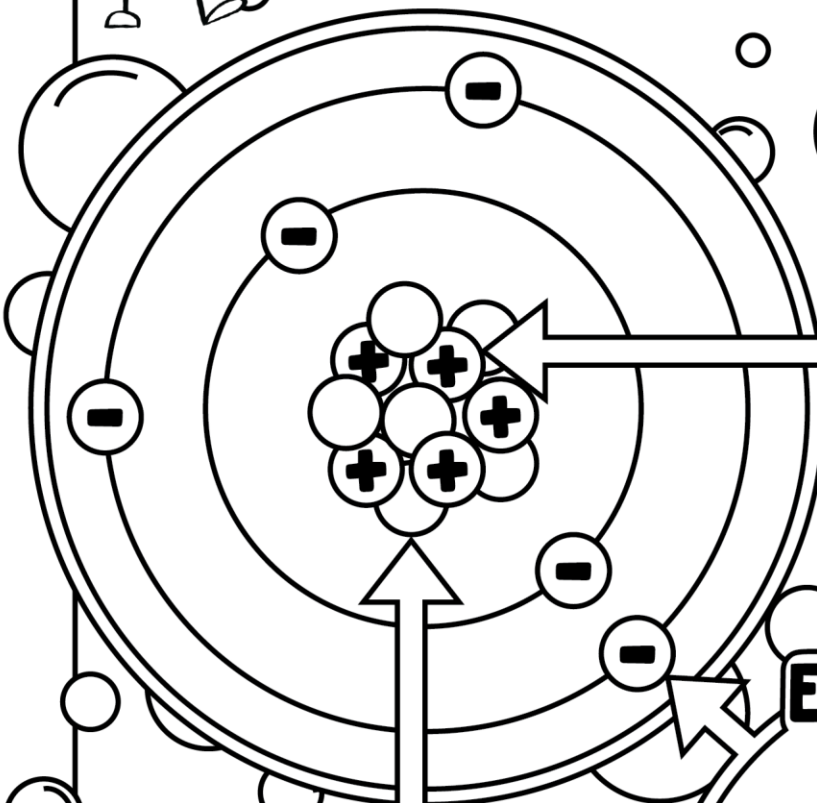


# PARTS OF AN ATOM



All \_\_\_\_\_ is made of tiny particles called \_\_\_\_\_.  
 Atoms are made of even smaller \_\_\_\_\_ particles called \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.



## PROTON

\_\_\_\_\_ charged particles in the \_\_\_\_\_ that have a mass of \_\_\_\_\_ AMU. The number of protons determines the \_\_\_\_\_ of an atom. For example hydrogen has \_\_\_\_\_, helium has \_\_\_\_\_.

## ELECTRON

\_\_\_\_\_ charged particles in the \_\_\_\_\_ shells or \_\_\_\_\_. The mass of an electron is \_\_\_\_\_ than that of a proton, so it does not add \_\_\_\_\_ mass to the \_\_\_\_\_.

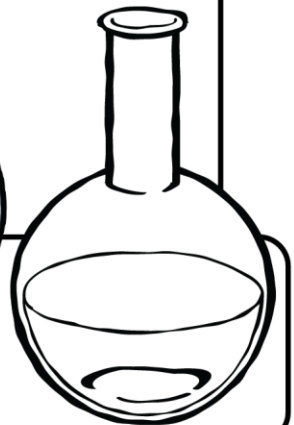
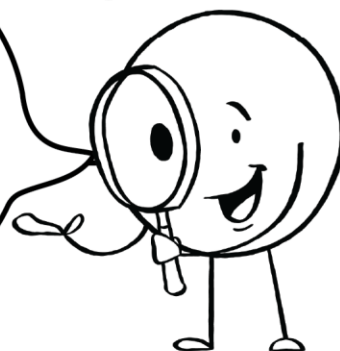
## NEUTRON

\_\_\_\_\_ particles in the \_\_\_\_\_ of the atom. They have no \_\_\_\_\_ and have a mass of \_\_\_\_\_ AMU. \_\_\_\_\_ is the only element that does \_\_\_\_\_ have at least one neutron in its \_\_\_\_\_.

AMU = ATOMIC MASS UNIT

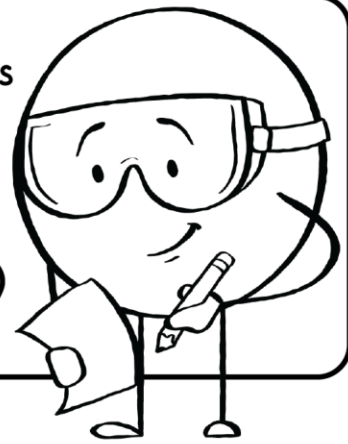
**WOW!**

Atoms are so small!  
 The dot on this i contains about 1 trillion atoms!



Atoms are mostly \_\_\_\_\_ space. The mass comes from the \_\_\_\_\_ and \_\_\_\_\_ in the nucleus!

A substance that cannot be \_\_\_\_\_ into simpler substances by \_\_\_\_\_ means. An element is composed of \_\_\_\_\_ that have the same number of \_\_\_\_\_ in their \_\_\_\_\_.



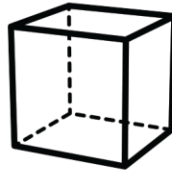
# ELEMENTS

Every element has a unique \_\_\_\_\_. It indicates the total number of \_\_\_\_\_ in the \_\_\_\_\_ of the atom. Normal atoms are electrically \_\_\_\_\_, same number of \_\_\_\_\_ as \_\_\_\_\_. So it is also the number of \_\_\_\_\_.

Every elements is \_\_\_\_\_ using a unique \_\_\_\_\_ of one or \_\_\_\_\_ letters. The first letter is always \_\_\_\_\_ and if there is a second letter, it is \_\_\_\_\_.

## ATOMIC NUMBER

12



## ELEMENT NAME

Every element has a unique name. Many element names are very \_\_\_\_\_ and are based on other \_\_\_\_\_.

\_\_\_\_\_ is named after "khloros," the Greek work for \_\_\_\_\_.

Newly discovered \_\_\_\_\_ are named by the discoverer, but must be \_\_\_\_\_ by an international committee.

Mg  
Magnesium

## SYMBOL

## ATOMIC MASS

24.305

Atomic mass is the mass of the \_\_\_\_\_ and the \_\_\_\_\_

\_\_\_\_\_ in an atom. Every proton and neutron has a \_\_\_\_\_ of \_\_\_\_\_ AMU. Electrons do \_\_\_\_\_ count towards the \_\_\_\_\_ because they are \_\_\_\_\_. The mass can be shown with a \_\_\_\_\_ because it is an average mass of the \_\_\_\_\_ of that element.

*You try:*



What element's neutral atom has 17 electrons?

How many neutrons are in a lithium atom?

What do you think the cube symbol in the upper right means?