

Atom

the smallest particle
of an element

Element

substance that cannot
be broken down into
simpler substances

Electron

negatively (-) charged particle
that exists in an electron
cloud formation around an
atom's nucleus

Proton

positively (+) charged
particle in the
nucleus of an atom

Neutron

electrically neutral particle
that has the same mass as a
proton and is found in an
atom's nucleus

Electron Cloud

region surrounding the
nucleus of an atom, where
electrons are most likely to be
found

Matter

anything that takes up space and has mass

atomic number

number of protons in the nucleus of each atom of a given element; is the top number of the element in the periodic table

isotope

two or more atoms of the same element that have different numbers of neutrons in their nuclei

mass number

sum of the number of protons and neutrons in the nucleus of an atom. $p + n = \text{mass number}$

atomic mass

average mass of an atom of an element; its unit of measure is the atomic mass unit (u), which is $1/12$ the mass of a carbon-12 atom

metals

element that is malleable, ductile, a good conductor of electricity, and generally has a shiny or metallic luster

nonmetals

element that is usually a gas or brittle solid at room temperature and is a poor conductor of heat and electricity

metalloids

element that shares some properties with both metals and nonmetals

mass

a measure of the amount of matter

formula

shows which elements and how many atoms of each make up a compound

substance

matter that has the same composition and properties throughout

compound

a substance produced when elements combine and whose properties are different from each of the elements

mixture

a combination of compounds and elements that has not formed a new substance and whose proportions can be changed without changing the mixture's identity

Chapter 1 Section 1 Words

Chapter 1 Section 2 Words

Chapter 1 Section 3 Words