

# LIVING ORGANISMS AND ELEMENTS

## What role do elements play in living organisms?

More than 30 elements play an important part in the lives of animals and plants (living organisms). Elements are found in the air, the soil, and are used in every function of a living organism. Whether it's a dog, a tiger, a tree, bacteria, or a human, all living organisms need elements to live.

## How do elements help you?

Elements are essential for the daily functions of humans. For example, we need oxygen for breathing, calcium for our bones, fluoride for our teeth, and iron for functions in the circulation of our blood.

Elements in our bodies are required in different amounts. Because of this, scientists organize elements into two categories: **essential elements** and **trace elements**.

**essential elements** - these are elements required for our bodies to function properly. Without these vital elements, humans and animals couldn't exist. Here are just a few of the essential elements found in our bodies:

### ESSENTIAL ELEMENTS

Oxygen (O)	Nitrogen (N)
Hydrogen (H)	Calcium (Ca)
Carbon (C)	Phosphorous (P)

**trace elements** - required in our bodies, but in very small amounts. Some trace elements can be deadly if found in amounts too high. Below are just a few of the trace elements:

### TRACE ELEMENTS

Iron (Fe)	Chromium (Cr)
Copper (Cu)	Selenium (Se)
Zinc (Zn)	Manganese (Mn)

# Elements found in the Human Body

Fill in the blanks for the sentences below. Then use the words to find the hidden words in the puzzle.

- 1) \_\_\_\_\_ play an important part in human bodies.
- 2) \_\_\_\_\_ and \_\_\_\_\_ need elements to survive.
- 3) Elements in the human body are divided into \_\_\_\_\_ groups:  
\_\_\_\_\_ and \_\_\_\_\_.
- 4) \_\_\_\_\_ is an essential element. Its atomic number is 8.

S D J K F T F O M S E H W J E  
L L J E D P W Z J N T P T F E  
T E A M D S Y O I A H K Y L S  
E M H M X P Q Z E M Q Y Z B N  
K P N J I N F S G U M E I V M  
C Y B R E N S W T H N V H Q S  
C Q L G S E A D S A V M P V T  
E Q Y Q N S T N E M E L E F A  
P X N T Q Q W I V G Y X B R L  
O M I M L F U T H Y H P X X G  
G A J K F I R C L X L T A U X  
L C Y G G G K R B W M S E C F  
T R A C E P Q K J V Y W G V P  
N Z B V B P M T Y F A K M F I  
M H D C Y Y J D C B J A W N C

## WORD BANK

trace  
elements

oxygen  
animals

essential  
two

humans

# Elements Found in the Human Body

Complete the chart below. Find the atomic number of the element and explain how it is used in the human body. You may use any research means necessary (the Internet, books, friends). If you are going to utilize the Internet, use search engines such as google.com and yahoo.com.

Element	Atomic Number	Used in the body for:
OXYGEN		
CARBON		
HYDROGEN		
NITROGEN		
CALCIUM		
PHOSPHOROUS		
POTASSIUM		
SULFUR		
SODIUM		
CHLORINE		
MAGNESIUM		
IRON		
COPPER		
CHROMIUM		
ZINC		
IODINE		