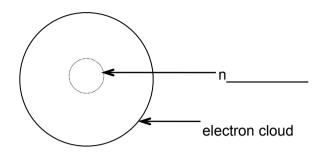
Structure of an Atom Questions



The e_	move around outside the n	These electrons
are n_	charged.	

The **nucleus** of an atom contains:

- p_____ which are _____ charged
- n____ which have ___ charge i.e are n____.

An atom always has the same number of protons as electrons, so the number of positive charges is the same as the number of negative charges and so an atom is _____ overall.

Atomic Number:

This tells us the number of p_____ an atom has. Examples: The atomic number for carbon is 6. So a carbon atom has __ p____ in its nucleus. A carbon atom also has __ electrons. Atomic number for oxygen is 8: Oxygen atoms have __ protons and __ electrons.

This number tells us the total number sub-atomic particles in the nucleus. It tells us the number of protons **plus** the number of neutrons in a nucleus.

So, if magnesium has a mass number of 24, this tells us that the total number of p_____ plus n___ = 24.

Can you complete the table below?

Atom	atomic number	mass number	number of protons	number of electrons	number of neutrons
nitrogen	7	14			
sulfur	16	32			
lithium	3	7			
hydrogen	1	1			
potassium		39	19		
oxygen			8		8
carbon		12		6	
chlorine	17				18
mercury		201		80	
tin		119	50		

Atomic symbols:

We represent the atomic number and the mass number of an atom as follows:

12 C mass number
6 atomic number

Can you write similar symbols for:

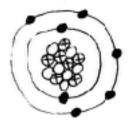
Oxygen

Sulphur

Mass number:

Atomic Structure Questions Part 2

1. Study the following nitrogen atom diagram then answer the questions below.



a.	How many protons are there in the nitrogen
	atom?

Э.	How many neutrons are there in the nitrogen
	atom?

C.	What is	the	atomic	number	for	this	atom	۱?
U.	vviialis	uic	atomic	HUHHDCI	101	นเมอ	aton	

 d. What is the mass number for this ato 	. What is t		d.
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2	Given	the	follov	vina	inforn	nation	٠_

The beryllium atom

atomic number = 4

mass number = 9

- a. Find the number of protons, neutrons, and electrons in this particle.
- b. Draw the structure of the beryllium atom to show all the information from question a.
- 3. Given the following information

a) What doe	es '31' mean
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- b) What does '15' mean?
- c) What does P stand for?
- d) Find the number of protons, electrons, & neutrons for this atom.

e) Draw the atom structure to show clearly the number of protons, electrons & neutrons present.

Atomic Structure Questions Part 3

1. Given the following information CI

- a) What does '35' mean?
- b) What does '17' mean?
- c) What does CI stand for?
- d) Find the number of protons, electrons, & neutrons for this atom.
- e) Draw the atom structure to show clearly the number of protons, electrons & neutrons present.
- 2. Give the electron configuration for the following atoms e.g. Li is 2,1.
- a) ₁₉K

b) ₁₂Mg

- c) ₁₇Cl
- 3. Refer to your periodic table in your folder.
- a) Name 2 elements that are found in group 16.
- b) What do these 2 elements have in common with their atomic structure?
- c) Name 2 elements that are found in group 1.
- d) What would these 2 elements [named in 2 d] have in common with their atomic structure?
- e) What is special about the group 18 elements?
- 4. From the diagram below:
 - a) Give the mass number for this atom.
 - b) Give the atomic number for this atom.
 - c) Give the electron configuration for this atom.
 - d) What group of the periodic table is this atom found in?