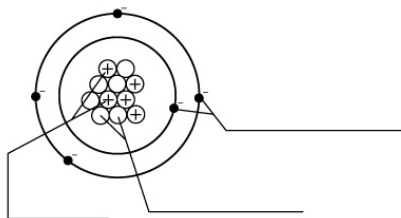


# Basic Atomic Structure

1. Label the parts of an atom in the diagram below



- What type of charge does a proton have? \_\_\_\_\_
- What type of charge does a neutron have? \_\_\_\_\_
- What type of charge does an electron have? \_\_\_\_\_
- Which two subatomic particles are located in the nucleus of an atom? \_\_\_\_\_

2. An element is represented by its chemical symbol along with a few numbers. Based on the example on the right, fill in the numbers of protons (P), neutrons (N), and electrons (E) for the following elements.

8	← Atomic Number
O	← Symbol
Oxygen	← Name
15.999	← Average atomic mass

6	#P _____
C	#N _____
Carbon	#E _____
12.011	

10	#P _____
Ne	#N _____
Neon	#E _____
20.108	

19	#P _____
K	#N _____
Potassium	#E _____
39.098	

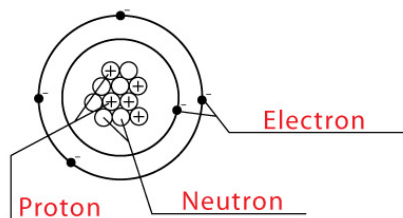
3. Complete the table using your knowledge of the periodic table.

Symbol	Atomic Number	Mass Number	Number of Protons	Number of Electrons	Number of Neutrons
Na			11		12
K		39		19	
			38		50
F				9	10
	20	40		20	
	50			50	69
I	53	127			

# Basic Atomic Structure

## Answers

1. Label the parts of an atom in the diagram below



- a) What type of charge does a proton have? Positive
- b) What type of charge does a neutron have? Neutral
- c) What type of charge does an electron have? Negative
- d) Which two subatomic particles are located in the nucleus of an atom? Proton and neutron

2. An element is represented by its chemical symbol along with a few numbers. Based on the example on the right, fill in the numbers of protons (P), neutrons (N), and electrons (E) for the following elements.

8	← Atomic Number
O	← Symbol
Oxygen	← Name
15.999	← Average atomic mass

6	#P <u>6</u>
C	#N <u>6</u>
Carbon	#E <u>6</u>
12.011	

10	#P <u>10</u>
Ne	#N <u>10</u>
Neon	#E <u>10</u>
20.108	

19	#P <u>19</u>
K	#N <u>20</u>
Potassium	#E <u>19</u>
39.098	

3. Complete the table using your knowledge of the periodic table.

Symbol	Atomic Number	Mass Number	Number of Protons	Number of Electrons	Number of Neutrons
Na	11	23	11	11	12
K	19	39	19	19	20
Sr	38	88	38	38	50
F	9	19	9	9	10
Ca	20	40	20	20	20
Sn	50	119	50	50	69
I	53	127	53	53	74