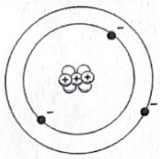
DR. BIRDLEY INVESTIGATES MATTER

NAME:_____

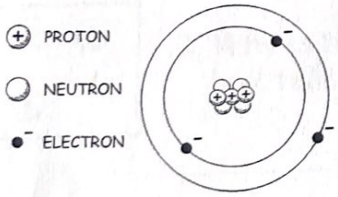
CLASS:_____ DATE:_____

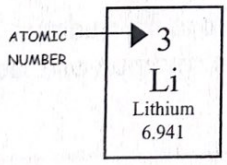


Background: All About Elements

7 Main Ideas

1. Elements are substances that are composed of only one type of atom!
2. Elements can be considered the simplest, purest forms of matter.
3. Atoms can be thought of as the smallest units of matter with specific identities.
4. An atom is made up of smaller particles called subatomic particles.
5. There are three types of subatomic particles: protons, neutrons, and electrons.
6. An atom's identity is determined by its number of protons
7. If an atom is broken up into subatomic particles, it loses its identity. That means that an atom will not have the same chemical properties if it is broken into subatomic particles.





Helpful Formulas

Atomic # = Number of Protons

(In neutral atoms, the atomic number is also equal to the number of electrons.)

Mass # = # Protons + # Neutrons

So,

neutrons = Mass # - Atomic

Using a periodic table, fill out the chart below with the correct information. Assume that all the elements are neutral.

Element	Atomic Number	Mass Number	Number of Protons	Number of Neutrons	Number of Electrons
Hydrogen	1	1	1	0	1
Carbon	6	12	6	6	6
Nitrogen					
Lithium					
Helium					
Fluorine					

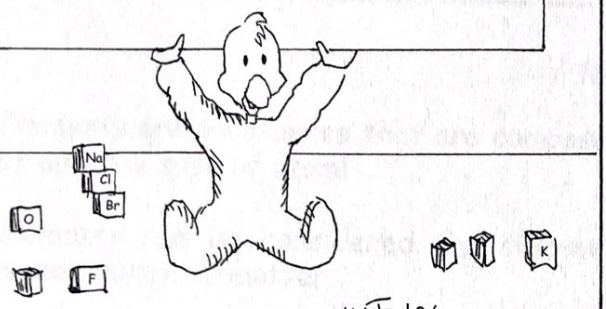
DR. BIRDLEY INVESTIGATES

ELEMENT ANALYSIS

NAME:_____

CLASS:_____ DATE:_____

For each element, fill in the missing information!



KATZ '06

2 He Helium 4.0026	# PROTONS	2
	# NEUTRONS	2
	# ELECTRONS	2
7 N Nitrogen 14.007	# PROTONS	7
	# NEUTRONS	7
	# ELECTRONS	7
3 Li Lithium 6.941	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
9 F Flourine 18.998	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
6 C Carbon 12.011	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
19 K Potassium 39.098	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
29 Cu Copper 63.546	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
80 Hg Mercury 200.59	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
50 Sn Tin 118.69	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	
18 Ar Argon 39.948	# PROTONS	
	# NEUTRONS	
	# ELECTRONS	