

Periodic Table Scavenger Hunt

1. (a) niobium, Nb
- (b) bromine, Br
- (c) francium, Fr
- (d) technetium, Tc
- (e) tellurium, Te
- (f) beryllium, Be
- (g) xenon, Xe

1e) Should read "**Non-Metal** in group 16 and **period 5**"

2. Answers are in boldface.

Name of Element	Atomic Number	Number of Protons	Number of Electrons
silicon	14	14	14
oxygen	8	8	8
chromium	24	24	24
sodium	11	11	11
aluminum	13	13	13
potassium	19	19	19

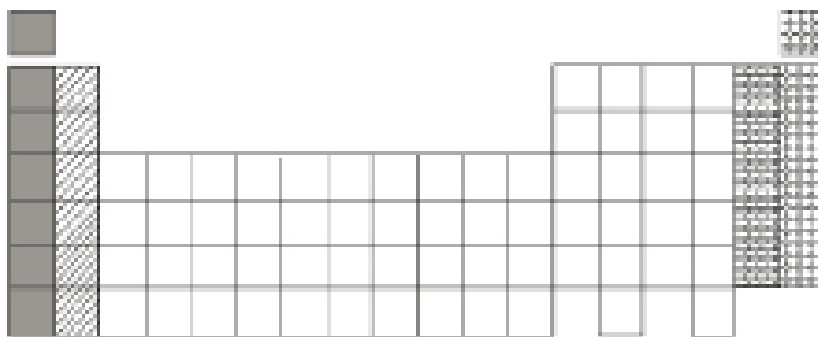
3.

 halogens

 noble gases

 alkali metals

 alkali earth metals

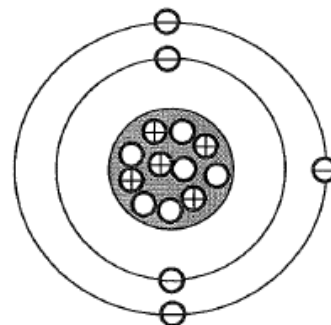


Atomic Basics

Answer Key

Part A: Atomic Structure

1. Draw five protons in the nucleus of the atom. Label them with their charge.
2. Draw six neutrons in the nucleus of the atom.
3. Draw two electrons in the first energy level and label them with their charge.
4. Draw three electrons in the second energy level and label them with their charge.
5. What element is represented by the diagram? **BORON**



Part B: Atomic Calculations

6. Label the information provided in the periodic table.

8	←	<u>ATOMIC NUMBER</u>
O	←	<u>SYMBOL</u>
Oxygen	←	<u>NAME</u>
15.999	←	<u>ATOMIC MASS</u>

7. What does the atomic number represent?

PROTONS or ELECTRONS

8. What does the atomic mass represent?

PROTONS + NEUTRONS

9. How would you figure the number of protons or electrons in an atom? **USE THE ATOMIC NUMBER**

10. How would you figure the number of neutrons in an atom? **SUBTRACT THE ATOMIC NUMBER FROM THE ATOMIC MASS**

11. Use your knowledge of atomic calculations to complete the chart.

Element	Atomic Number	Atomic Mass	Protons	Neutrons	Electrons
Li	3	7	3	4	3
P	15	31	15	16	15
Cl	17	35	17	18	17
Ni	28	59	28	31	28
K	19	39	19	20	19
Ag	47	108	47	61	47
H	1	1	1	0	1
Si	14	28	14	14	14
W	74	184	74	110	74
Ne	10	20	10	10	10

NOTE: The number protons and electrons is equal to the atomic number. To find neutrons, subtract the number of protons from the atomic mass. To find the atomic mass, add the number of protons and neutrons.