

Name: _____ Date: _____

CHEMISTRY

Periods and Groups

11.009

H

Hydrogen

36.96

Li

Lithium

9.0122

Be

Beryllium

22.99

Na

Sodium

24.305

Mg

Magnesium

39.098

K

Potassium

40.078

Ca

Calcium

63.94

Rb

Rubidium

85.468

Sr

Strontium

132.91

Cs

Cesium

226.04

Fr

Francium

6.941

B

Boron

12.011

C

Carbon

14.007

N

Nitrogen

15.999

O

Oxygen

16.999

F

Fluorine

18.998

Ne

Neon

28.086

Al

Aluminum

28.086

Si

Silicon

30.974

P

Phosphorus

31.973

S

Sulfur

35.453

Cl

Chlorine

39.962

Ar

Argon

50.942

Ga

Gallium

72.64

Ge

Germanium

75.024

As

Arsenic

78.96

Se

Selenium

79.904

Br

Bromine

83.904

Kr

Krypton

101.07

In

Indium

114.82

Sn

Tin

121.76

Sb

Antimony

127.60

Te

Tellurium

126.905

I

Iodine

131.29

Xe

Xenon

151.96

Tl

Thallium

204.38

Pb

Lead

208.98

Bi

Bismuth

209

Po

Polonium

210

At

Astatine

222

Rn

Radon

186.207

Os

Osmium

188.906

Ir

Iridium

190.224

Pt

Platinum

195.084

Au

Gold

200.598

Hg

Mercury

204.38

Tl

Thallium

208.98

Pb

Lead

210

Bi

Bismuth

210

Po

Polonium

210

At

Astatine

210

Rn

Radon

210

Ac

Actinium

210

Th

Thorium

210

Pa

Protactinium

210

U

Uranium

210

Np

Neptunium

210

Pu

Plutonium

210

Am

Americium

210

Cm

Curium

210

Bk

Berkelium

210

Cf

Californium

210

Es

Einsteinium

210

Fm

Fermium

210

Md

Mendelevium

210

No

Nobelium

210

Lr

Lawrencium

210

La

Lanthanum

210

Ce

Cerium

210

Pr

Praseodymium

210

Nd

Neodymium

210

Pm

Promethium

210

Sm

Samarium

210

Eu

Europium

210

Gd

Gadolinium

210

Tb

Terbium

210

Dy

Dysprosium

210

Ho

Holmium

210

Er

Erbium

210

Tm

Thulium

210

Yb

Ytterbium

210

Lu

Lutetium

210

Sc

Scandium

210

Ti

Titanium

210

V

Vanadium

210

Cr

Chromium

210

Mn

Manganese

210

Fe

Iron

210

Co

Cobalt

210

Ni

Nickel

210

Cu

Copper

210

Zn

Zinc

210

Ga

Gallium

210

Ge

Germanium

210

As

Arsenic

210

Se

Selenium

210

Br

Bromine

210

Kr

Krypton

210

Rb

Rubidium

210

Sr

Strontium

210

Y

Yttrium

210

Zr

Zirconium

210

Nb

Niobium

210

Mo

Molybdenum

210

Tc

Technetium

210

Ru

Ruthenium

210

Rh

Rhodium

210

Pd

Palladium

210

Ag

Silver

210

Cd

Cadmium

210

In

Indium

210

Sn

Tin

210

Sb

Antimony

210

Te

Tellurium

210

I

Iodine

210

Xe

Xenon

210

Cs

Cesium

210

Ba

Barium

210

La-Lu

Lanthanide

210

Hf

Hafnium

210

Ta

Tantalum

210

W

Tungsten

210

Re

Rhenium

210

Os

Osmium

210

Ir

Iridium

210

Pt

Platinum

210

Au

Gold

210

Hg

Mercury

210

Tl

Thallium

210

Pb

Lead

210

Bi

Bismuth

210

Po

Polonium

210

At

Astatine

210

Rn

Radon

210

Fr

Francium

210

Ra

Radium

210

Ac-Lr

Actinide

210

Rf

Rutherfordium

210

Db

Dubnium

210

Sg

Seaborgium

210

Bh

Bohrium

210

Hs

Hassium

210

Mt

Meitnerium

210

Ds

Darmstadtium

210

Rg

Roentgenium

210

Cn

Copernicium

210

Nh

Nihonium

210

Fl

Flerovium

210

Mc

Moscovium

210

Lv

Livermorium

210

Ts

Tennessine

210

Og

Oganesson

Atomic number

5

10.811

Atomic mass

B

Symbol

Boron

Name

Alkali metal

Alkaline earth metal

Metal

Transition metal

Lanthanide

Metalloid

Non-metal

Halogen

Noble gas

Actinide

Periods are horizontal rows on the periodic table. Periods are numbered 1 to 7, top down on the periodic table. Period 1 begins at Hydrogen (H). Period 7 begins at Francium (Fr).

Groups are vertical columns on the periodic table. Groups are numbered **1A to 8A** from left to right across the periodic table (excluding the transition metals, lanthanide series metals, and actinide series metals).

Group 1A Alkali metals (H)

Group 2A Alkaline earth metals (Be)

Group 3A Boron group elements (B)

Group 4A Carbon group elements (C)

Group 5A Nitrogen group elements (N)

Group 6A Oxygen group elements (O)

Group 7A Halogen elements (F)

Group 8A Noble Gas elements (He)

Groups are numbered **3B to 12B** from left to right across the periodic table for the **transition metals only**.

Group 3B Sc

Group 4B Ti

Group 5B V

Group 6B Cr

Group 7B Mn

Group 8B Fe

Group 9B Co

Group 10B Ni

Group 11B Cu

Group 12B Zn

Element identification. Write the chemical symbol for the element at the given location on the periodic table of the elements. The location is written as “Period, Group”. The chemical symbol for an element may be 1 or 2 letters. If 1 letter, it must be capitalized. If 2 letters, the first letter is capitalized and the second letter is lower case.

1. Period 1, Group 1A		9. Period 4, Group 3B	
2. Period 1, Group 8A		10. Period 6, Group 6B	
3. Period 3, Group 3A		11. Period 5, Group 12B	
4. Period 2, Group 6A		12. Period 4, Group 7B	
5. Period 5, Group 2A		13. Period 5, Group 11B	
6. Period 4, Group 5A		14. Period 6, Group 4B	
7. Period 4, Group 8A		15. Period 5, Group 5B	
8. Period 3, Group 6A		16. Period 4, Group 12B	