

Name: _____
Hour: _____ Date: _____

Chemistry: *The Periodic Table*

Directions: Fill in the blanks on the right with the information in the chart below.

Word List

actinide series	metal
alkali metal	metalloid
alkaline earth metal	Moseley
atomic mass	noble gas
atomic number	nonmetal
family	period
group	periodic law
halogen	periodic table
lanthanide series	transition element

Dmitri Mendeleev developed a chartlike arrangement of the elements called the __ (1) __. He stated that if the elements were listed in order of increasing __ (2) __, their properties repeated in a regular manner. He called this the __ (3) __ of the elements. The arrangement used today, devised by __ (4) __, differs from that of Mendeleev in that the elements are arranged in order of increasing __ (5) __. Each horizontal row of elements is called a(n) __ (6) __. Each vertical column is called a(n) __ (7) __, or, because of the resemblance between elements in the same column, a(n) __ (8) __.

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In rows 4 through 7, there is a wide central section containing elements, each of which is called a(n) __ (9) __. Rows 6 and 7 also contain two other sets of elements that are listed below the main chart. These are called the __ (10) __ and the __ (11) __, respectively. Each of these elements, as well as those in the first two columns at the left end of the chart, is classified as a(n) __ (12) __. Each of the elements at the right side of the chart is classified as a(n) __ (13) __. Each of the elements between these two main types of elements, having some properties in common with each, is called a(n) __ (14) __.

Each of the elements in the column labeled 1 is called a(n) __ (15) __. Each of the elements in the column labeled 2 is called a(n) __ (16) __. Each of the elements in column 17 is called a(n) __ (17) __. Each of the elements in column 18 is called a(n) __ (18) __.

For each of the following, circle the correct element.

Li	Si	S	metal
N	P	As	smallest ionization energy
K	Ca	Sc	largest atomic mass
S	Cl	Ar	member of the halogen family
Al	Si	P	greatest electron affinity
Ga	Al	Si	largest atomic radius
V	Nb	Ta	largest atomic number
Te	I	Xe	member of noble gases
Si	Ge	Sn	4 energy levels
Li	Be	B	member of alkali metals
As	Se	Br	6 valence electrons
H	Li	Na	nonmetal
Hg	Tl	Pb	member of transition metals
Na	Mg	Al	electron distribution ending in s^2p^1
Pb	Bi	Po	metalloid
B	C	N	gas at room temperature
Ca	Sc	Ti	electron distribution ending in s^2d^2