



Elements & the Periodic Table

Phys
Sci

Name _____ Class _____ Date _____

1 Silicon (Si) and boron (B) are called **metalloids** because they _____.

Circle the answer.

- a. always act as metals
- b. always act as nonmetals
- c. act as both metals and nonmetals

5 B Boron
14 Si Silicon
32 Ge Germanium
33 As Arsenic
51 Sb Antimony
52 Te Tellurium
84 Po Polonium
85 At Astatine

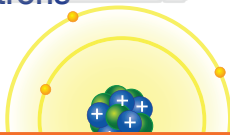
6 Circle the answer.

An atom with **seven valence electrons** will only need **one more electron to bond** to another atom. This is a characteristic of _____.

- metals
- noble gases
- nonmetals
- neutrons

2 Carbon (C) has 4 electrons in its **valence shell**. How many **more** electrons does carbon need to have a **full valence shell**?

Write the answer.



7 As you go from **top to bottom down any group** in the periodic table, the number of **valence electrons** _____.

- a. increases

10 Ni Nickel	28 Pd Palladium	78 Pt Platinum	110 Uun Ununnilium
1 H Hydrogen	2 He Helium	3 Li Lithium	4 Be Beryllium
11 Na Sodium	12 Mg Magnesium	19 K Potassium	20 Ca Calcium
37 Rb Rubidium	38 Sr Strontium	55 Cs Cesium	56 Ba Barium
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Th Thorium

3

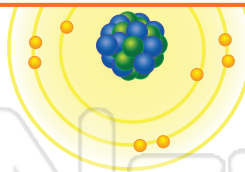


PREVIEW

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4

- a. take 7 more electrons
- b. give up one electron
- c. act as a noble gas



than K

- b. K has 8 more protons than Na
- c. K has a smaller atomic mass

5 What happens to the **atomic number** as you read from **left to right** across any **period** in the periodic table?

- a. increases
- b. decreases
- c. remains the same

1 H	2 He	3 Li	4 Be	5 B	6 C	7 N	8 O	9 F	10 Ne	11 Na	12 Mg	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe	55 Cs	56 Ba	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn	87 Fr	88 Ra	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr
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10 Some **atomic mass** numbers are **not whole numbers** because some atoms have _____.

- a. different numbers of electrons
- b. neutrons missing matter
- c. many isotopes with different masses

1 H 1.0079
3 Li 6.941



Elements & the Periodic Table - Answer Key

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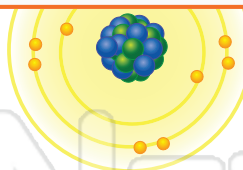


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11 Na Sodium
12 Mg Magnesium
19 K Potassium
20 Ca Calcium
21 Sc Scandium
37 Rb Rubidium
38 Sr Strontium
39 Y Yttrium
55 Cs Cesium
56 Ba Barium
57 La Lanthanum

11 Na 22.990
19 K 39.098

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