

Flinn Scientific Periodic Table of the Elements

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IA	IIA	IIIB	IVB	VIB	VIB	VIB	VIII	VIII	VIII	IB	IIB	IIIA	IVA	VA	VIA	VIIA	VIIIA
1 H Hydrogen 1.008	2 He Helium 4.003																
3 Li Lithium 6.941	4 Be Beryllium 9.012	5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 O Oxygen 16.00	9 F Fluorine 19.00	10 Ne Neon 20.18										
11 Na Sodium 22.99	12 Mg Magnesium 24.31	13 Al Aluminum 26.98	14 Si Silicon 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.07	17 Cl Chlorine 35.45	18 Ar Argon 39.95										
19 K Potassium 39.10	20 Ca Calcium 40.08	21 Sc Scandium 44.96	22 Ti Titanium 47.87	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mn Manganese 54.94	26 Fe Iron 55.85	27 Co Cobalt 58.93	28 Ni Nickel 58.69	29 Cu Copper 63.55	30 Zn Zinc 65.38	31 Ga Gallium 69.72	32 Ge Germanium 72.64	33 As Arsenic 74.92	34 Se Selenium 78.96	35 Br Bromine 79.90	36 Kr Krypton 83.80
37 Rb Rubidium 85.47	38 Sr Strontium 87.62	39 Y Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molybdenum 95.96	43 Tc Technetium (98)	44 Ru Ruthenium 101.1	45 Rh Rhodium 102.9	46 Pd Palladium 106.4	47 Ag Silver 107.9	48 Cd Cadmium 112.4	49 In Indium 114.8	50 Sn Tin 118.7	51 Sb Antimony 121.8	52 Te Tellurium 127.6	53 I Iodine 126.9	54 Xe Xenon 131.3
55 Cs Cesium 132.9	56 Ba Barium 137.3	57-71 La-Lu ★	72 Hf Hafnium 178.5	73 Ta Tantalum 180.9	74 W Tungsten 183.8	75 Re Rhenium 186.2	76 Os Osmium 190.2	77 Ir Iridium 192.2	78 Pt Platinum 195.1	79 Au Gold 197.0	80 Hg Mercury 200.6	81 Tl Thallium 204.4	82 Pb Lead 207.2	83 Bi Bismuth 209.0	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89-103 Ac-Lr #	104 Rf Rutherfordium (267)	105 Db Dubnium (268)	106 Sg Seaborgium (271)	107 Bh Bohrium (272)	108 Hs Hassium (270)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (280)	112 Cn Copernicium (285)	113 Uut Ununtrium (284)	114 Uuq Ununquadium (289)	115 Uup Ununpentium (288)	116 Uuh Ununhexium (293)	117 Uus Ununseptium (294)	118 Uuo Ununoctium (294)
★	57 La Lanthanum 138.9	58 Ce Cerium 140.1	59 Pr Praseodymium 140.9	60 Nd Neodymium 144.2	61 Pm Promethium (145)	62 Sm Samarium 150.4	63 Eu Europium 152.0	64 Gd Gadolinium 157.3	65 Tb Terbium 158.9	66 Dy Dysprosium 162.5	67 Ho Holmium 164.9	68 Er Erbium 167.3	69 Tm Thulium 168.9	70 Yb Ytterbium 173.0	71 Lu Lutetium 175.0		
	89 Ac Actinium (227)	90 Th Thorium 232.0	91 Pa Protactinium 231.0	92 U Uranium 238.0	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (288)	102 No Nobelium (259)	103 Lr Lawrencium (262)		

★

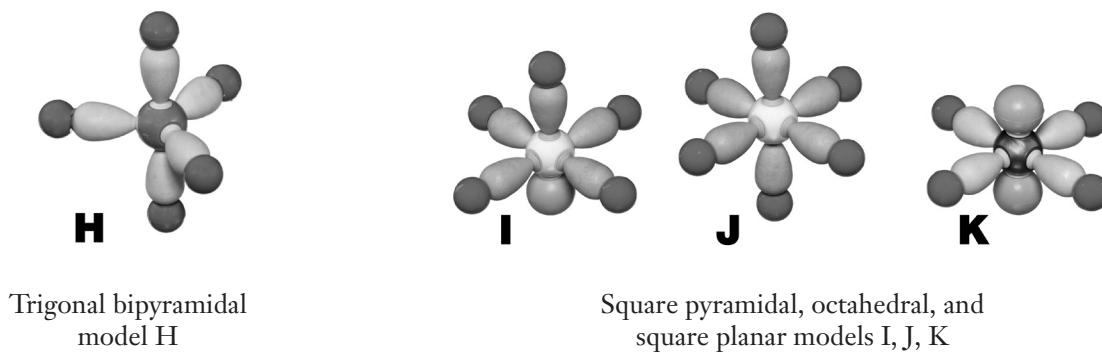
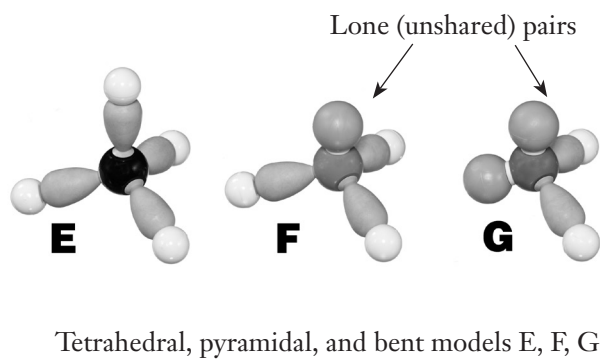
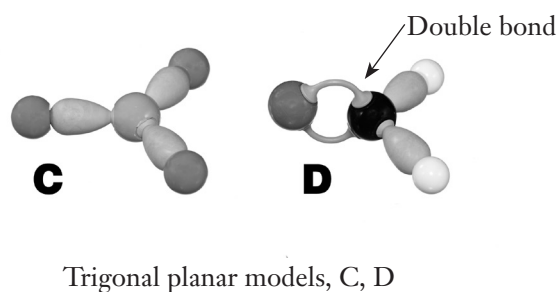
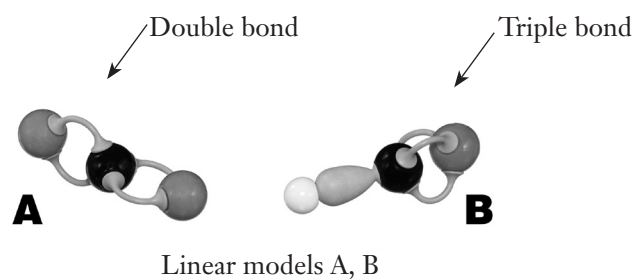
Atomic Number	3
Symbol	Li
Name	Lithium
Molar Mass	6.94

#

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Supplementary Information

Molecular Models Required for Part B



Molecular Model Assembly Instructions

Model A

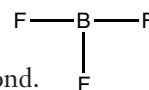
Place four long, flexible links into the black carbon atom. Connect the ends of two links to one red oxygen atom and the other two link ends to another red oxygen atom.

Model B

Place three long, flexible links into the black carbon atom. Place a gray sigma bond in the remaining hole of the carbon atom. Connect the ends of the flexible links to a blue nitrogen atom. Connect a white hydrogen atom to the sigma bond.

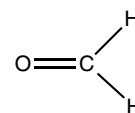
Model C

Connect three sigma bonds to the beige boron atom. Connect a light-green fluorine atom to each sigma bond.



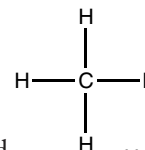
Model D

Connect two long, flexible links and two sigma bonds to a black carbon atom. Connect a red oxygen atom to the two flexible links and a white hydrogen atom to each sigma bond.



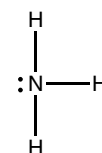
Model E

Connect four sigma bonds to a black carbon atom. Connect a white hydrogen atom to each sigma bond.



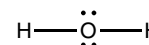
Model F

Connect three sigma bonds and one white short link to a blue nitrogen atom. Connect a white hydrogen atom to each sigma bond and a beige lone pair orbital to the short link.



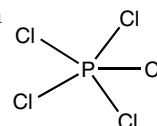
Model G

Connect two sigma bonds and two short links to a red oxygen atom. Connect a white hydrogen atom to each sigma bond and a beige lone pair orbital to each short link.



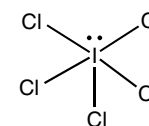
Model H

Connect five sigma bonds to a purple phosphorous atom. Connect a green chlorine atom to each sigma bond.



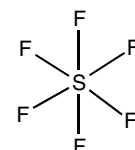
Model I

Connect five sigma bonds and one white short link to a yellow, six-hole atom. Connect a green chlorine atom to each sigma bond and a beige lone pair orbital to the short link.



Model J

Connect six sigma bonds to a yellow sulfur atom. Connect a light-green fluorine atom to each sigma bond.



Model K

Connect four sigma bonds and two white short links to a yellow, six-hole atom. Place the short links 180° apart. Connect a light-green fluorine atom to each sigma bond and a beige lone pair orbital to each short link.

