Elemental form	**H_2**	**He**	**Li(s)**	**Be(s)**	**B(s)**	**C(s)**	**N_2**	**O_2**	**F_2**	**Ne**
Melting point	13.81 K	0.95 K	453.65 K	1560 K	2348 K	3823 K	63.15 K	54.36 K	53.53 K	24.56 K
Boiling point	20.28 K	4.22 K	1615 K	2744 K	4273 K	4098 K	77.36 K	90.20 K	85.03 K	27.07 K
BP-MP	6.47 K	3.27 K	1161 K	1184 K	1925 K	275 K	14.21 K	35.84 K	31.5	2.51 K
Name	hydrogen	helium	lithium	beryllium	boron	carbon	nitrogen	oxygen	fluorine	neon
What kinds of bonds are present in each elemental form above?										
What intermolecular forces are present if you have a mole of each elemental form?										

Why is nitrogen a gas at room temperature and carbon is a solid?

What is the difference between a covalent bond and London Dispersion Forces?

Listed below are some properties of three elements: Na(s) Si(s), and Br_2(l)
Explain how the type of bonding in the element leads to its observed properties. Draw a picture at the atomic/molecular level of the element showing how the atoms are bonded, that can explain these observed properties

Sodium: Na, mp 370 K, grey, shiny, malleable and ductile. Conducts electricity.

Silicon: Si, mp 1687 K, grey, shiny, hard and brittle, can be chipped.

Bromine: Br_2, mp 266 K, brown liquid, easily vaporized (bp 332 K). At temperatures above 1000K, Br_2 dissociates.