

### Key Concept Review Pg. 187 #1-10

1. Students' answers may vary but could include hydrogen, H; nitrogen, N; and oxygen, O.
2. (a) Students' answers may vary but could include bromine and mercury.  
(b) Mercury is a metal; bromine is a non-metal.
3. (a) germanium, Ge  
(b) rubidium, Rb  
(c) helium, He  
(d) iodine, I  
(e) hydrogen, H  
(f) oxygen, O  
(g) carbon, C  
(h) chromium, Cr  
(i) mercury, Hg  
(j) fluorine, F
4. (a) sodium, Na  
(b) iron, Fe  
(c) silver, Ag  
(d) lead, Pb
5.  
(a) Five elements that begin with C are chlorine, carbon, calcium, chromium, copper.  
(b) Three elements named after places are copper, magnesium, germanium.  
(c) Five non-metals with two-letter symbols are He, Ne, Ar, Cl, Br.
6. S, Si, Ag
7. The element in the picture could be sodium. It is known to be a soft metal that can easily be cut with a knife, and it reacts violently with water.
8. (a) Iron and carbon are the examples given in the student book.  
(b) hydrogen and water  
(c) sodium and chlorine
9. (a) Ozone is a pure form of oxygen that contains three oxygen atoms connected together.  
(b) Ozone is toxic to breathe, which means that, close to the ground, it is considered a pollutant. When it is higher in the atmosphere, it blocks harmful ultraviolet light from reaching Earth's surface; in this way, ozone is helpful to life on Earth.
10. Students' answers may vary but could include carbon in pencils (graphite), silicon in glass, iron in cars, or copper in pennies.