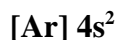


Notice a short cut in the previous example - all group 2 atoms have 2 valence electrons. Why is this? What does this say about the way the periodic table is set up? Examine the table to confirm this.

Core electron short hand - you may use the following to shorten your electron configuration. For all the electrons included in the previous noble gas configuration (referred to as core electrons,) you may use the noble gas symbol in brackets. The remaining electrons (referred to as valence electrons¹) are written out as before. Thus, Ca above becomes:



Note by this convention that the electron configuration for a noble gas has the previous noble gas in brackets (as the core electrons.) Thus Ar is:



Give the electron configurations for the following elements or ions:



STOP - Obtain and complete the Electron Configuration Quiz

¹The definition of valence electrons used here is the normal physics definition. Some chemist exclude filled d or f electrons from the valence electron definition.