Electron Shell Configuration/ BOHR Model

You can think of the way electrons (e-) form around an atom's nucleus as levels. We will call these levels "energy levels or shells."

At each level, or shell, only a certain number of electrons can be held there. **A level will not fill with e- until the previous level has been filled.** The shells can be designated as the primary energy levels 1, 2, 3, 4, 5, 6, & 7. We must keep in mind that the **shells are just a representation of how an atom reacts and isn't really the way an atom looks**. Also, it must be clarified that within **the different energy levels**, or shells, there are actual sub-shells. (More on this in high school☺)

Drawing electron shell configurations (Bohr Models of Atoms):

1. Write down name of the element, its symbol, and the atomic mass (a.m.u.)
2. Write down the # of protons, neutrons, and electrons in the element.
   p+ = atomic number
   n = atomic mass - # of protons
   e- = same as number of protons (considering the atom is neutral overall)
3. Next draw the nucleus with the number of protons and neutrons inside.
4. Lastly, one level at a time, fill the shells with the electrons. The levels need to be labeled - 1, 2, 3, 4, 5, 6, 7. This can be done with dots to represent each electron (please, no dots for elements with more than ten electrons) or just the number of electrons at each level.

Level 1 – can hold 2 electrons
Level 2 – can hold 8 electrons
Level 3 – can hold 18 electrons
Level 4 – can hold 32 electrons
Level 5 – can hold 32 electrons
Level 6 – can hold 18 electrons
Level 7 – can hold 8 electrons