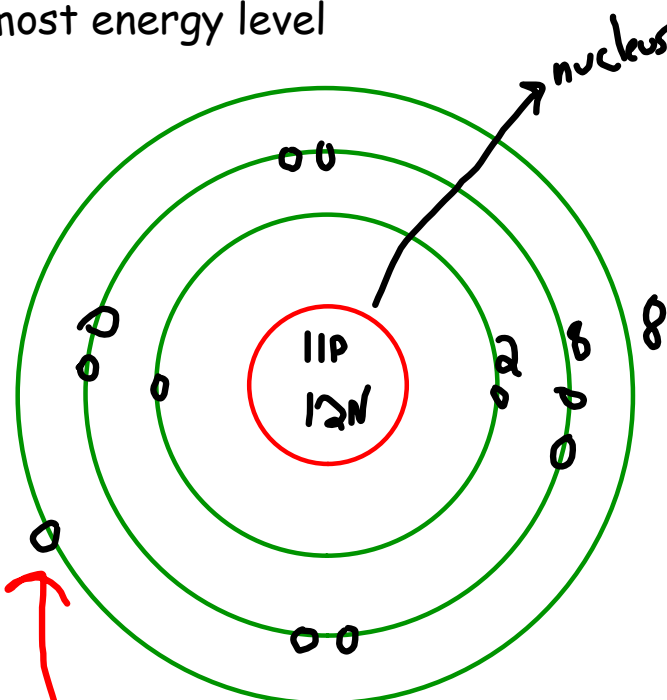
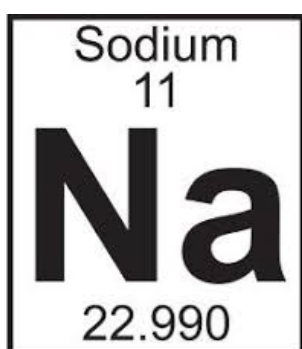


Atomic Structure:

- Proton: +, 1 amu, nucleus
- Neutron: 0, 1 amu, nucleus
- Electron: -1, negligible
- Valence electron
 - > electrons in outermost energy level
- Mass Number = $p+n$
- Charge = $p-e$



- Proton: 11
- Neutron: $23-11 = \underline{12}$
- Electron: 11
- Valence electron: 1
- Mass Number = 23
- Charge = 0

The electron shells surrounding the nucleus each hold a particular number of electrons.

Shells are named with letters:

1 = K shell	= 2 electrons
2 = L shell	= 8 electrons
3 = M shell	= 8 electrons
4 = N shell	= 18 electrons
5-7 = O, P, Q	= up to 32 electrons

Remember: The outer shell of an atom (no matter what letter) can only hold 8 electrons!