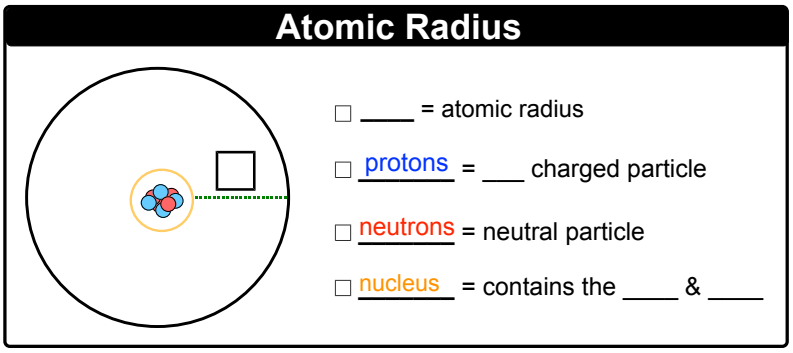
CONCEPT: PERIODIC TREND: ATOMIC RADIUS (SIMPLIFIED)

● **Atomic radius**: Distance between an atom's nucleus and its outer electron shell (valence shell).

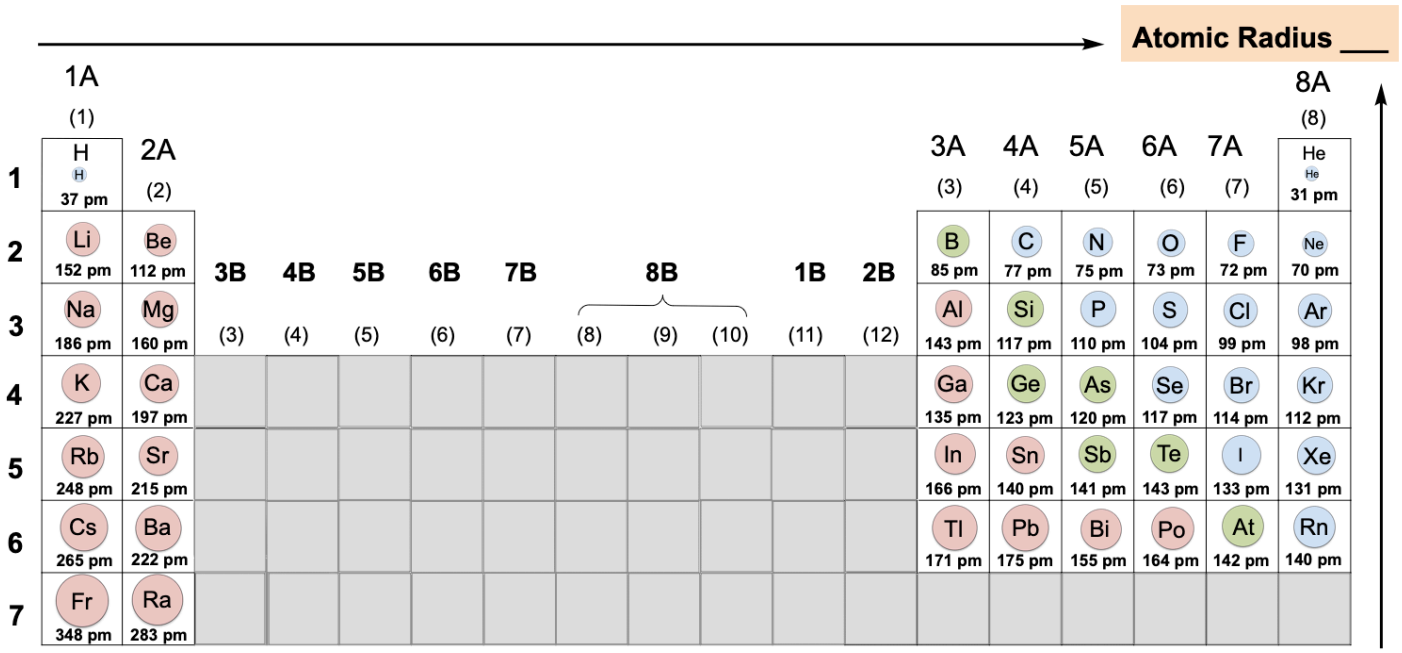


□ Going down a **group** ____ number of electrons and ____ number of electron shells.

□ Moving across a **period** ____ number of electrons within the same electron shell.

- _____ electrons in same shell = _____ attraction with nucleus = slight decrease in atomic radius

□ **Periodic Trend:** Atomic Radius _____ moving from left to right across a period and going up a group.



□ The electron arrangements for the transition metals makes their pattern less predictable.

EXAMPLE: Which one of the following atoms has the largest atomic radius?

a) K b) Rb c) Y d) Ca e) Sr

CONCEPT: PERIODIC TREND: ATOMIC RADIUS

PRACTICE: Which alkaline earth metal has the smallest atomic radius?

a) Ca b) Rb c) Na d) Ra e) Fr

PRACTICE: Which alkaline earth metal has the largest atomic radius?

a) Na b) Ba c) Cl d) Mg e) Li

PRACTICE: Arrange the following atoms in order of decreasing atomic radius: Sr, Se, Ne, Ga

a) Ne > Se > Ga > Sr

b) Ga > Se> Ne > Sr

c) Sr > Ga > Se > Ne

d) Se > Ne > Ga > Se