

# Bohr Diagrams and Lewis Dot Structures

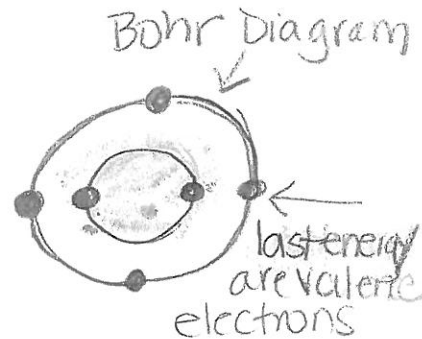
**Bohr Diagrams** - shows electrons in each energy level for that atom

Example 1 C = Carbon → Atomic # is 6

P E N → Atomic Mass - Atomic #

6 6 6

Carbon is in 2nd Row = 2 energy levels  
Last energy level = valence electrons



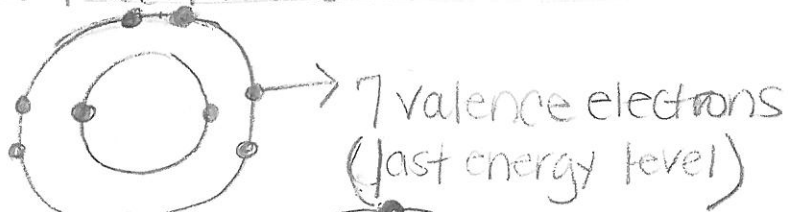
Example 2

F = Fluorine → 2nd Energy Level or Row

P E N

9 9 10

Fluorine → 2nd Energy Level or Row



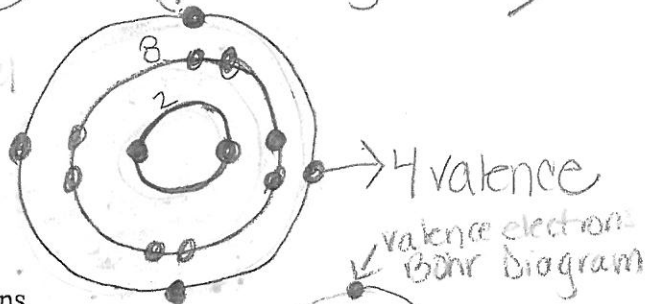
Example 3

Si = Silicon → 3rd Energy Level or Row

P E N

14 14 14

Silicon → 3rd Energy Level or Row



**Lewis Dot Structures** - shows only the valence electrons

Example 1

Na = Sodium → 3 energy levels

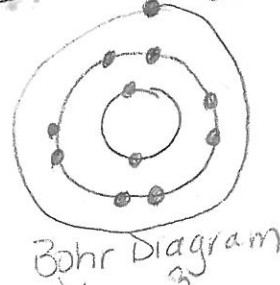
P E N

11 11 12

Sodium → 3 energy levels

→ valence electron

Na → Lewis Dot



Example 2

Ne = Neon

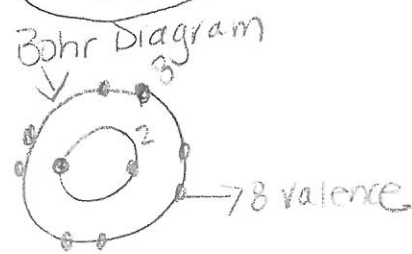
P E N

10 10 10

Neon

→ valence electron

→ Lewis Dot



Example 3

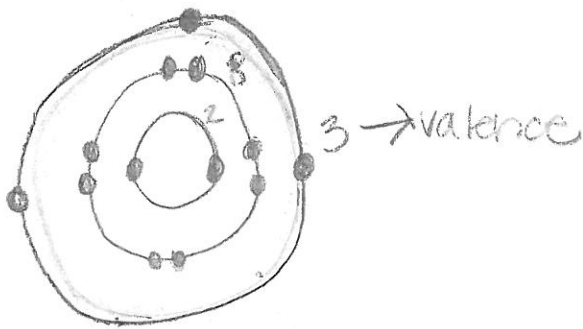
Al = Aluminium

P E N

13 13 14

Aluminium

→ Lewis Dot



Rows on Periodic table =

Energy levels

Valence electrons are electrons that interact with other elements

When the outer shell is full, the element is stable or "happy"