

Bohr Model Notes

- Used to show arrangement of electrons
- Electrons are placed on the lowest shell first
- Once full, extra electrons are placed in the next shells
- Maximum number of electrons on shells

* shell = orbit = energy level

- 1st = 2 electrons
- 2nd = 8 electrons
- 3rd = 8 electrons

Important

- After element 18, shells fill differently so you might hear 2, 8, 18 in higher level chemistry classes *Don't worry about too much.*
- After element 18 the shells fill differently

Periodic Table Tips

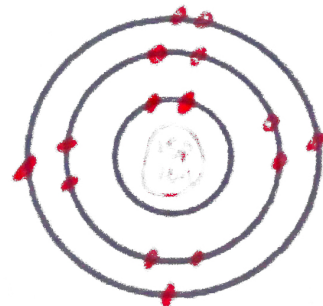
- The periodic table can help you quickly complete the Bohr model

- The number of periods shows you the number of energy levels / orbits / shells
- The number of groups shows you the number of electrons in the outer shell

Bohr Model Practice

- Fill in the blanks below.

- Phosphorus
- Symbol: P
- Atomic Number: 15
- Atomic Mass: 31
- Protons: 15p
- Neutrons: 31-15=16
- Electrons: 15e



Bohr Model Worksheet

Use the description sheet and the periodic table to help you complete the following Bohr models.

1. How many electrons can each shell hold?

a. 1st = 2e

b. 2nd = 8e

c. 3rd = 8e

atomic #
↓

atomic mass -
atomic #
↓

atomic #
↓

Element	Atomic #	Atomic Mass	Protons	Neutrons	Electrons	Bohr Model
Carbon	6	12	6	12 - 6 = 6	6	
Hydrogen	1	1	1	1 - 1 = 0	1	
Lithium	3	6.94 = 7	3	7 - 3 = 4	3	
Magnesium	12	24	12	24 - 12 = 12	12	
Boron	5	11	5	11 - 5 = 6	5	