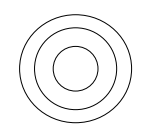


Names:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_

Objective: Students will develop a model that illustrates the arrangement of electrons using the Bohr Model.

Bohr Models

* Used to show arrangement of electrons.
* Electrons are placed on the \_\_\_\_\_\_\_\_\_\_\_\_ shell first. Once full, extra electrons are placed in the next shells.
* Maximum number of electrons on shells:
  + 1st = \_\_\_\_\_\_ electrons
  + 2nd – \_\_\_\_\_\_ electrons
  + 3rd – \_\_\_\_\_\_ electrons
    - 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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - The number of groups shows you the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the outer shell
* Bohr Model Practice. Fill in the blanks below for Phosphorus and draw the Bohr model.

Symbol: \_\_\_\_\_\_\_\_\_ Atomic Number: \_\_\_\_\_\_\_\_\_

Atomic Mass: \_\_\_\_\_\_\_\_\_ Protons: \_\_\_\_\_\_\_\_\_

Neutrons: \_\_\_\_\_\_\_\_\_ Electrons: \_\_\_\_\_\_\_\_\_

Bohr Model Worksheet

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Element** | **Atomic #** | **Atomic Mass** | **Protons** | **Neutrons** | **Electrons** | **Bohr Model** |
| Carbon | 6 | 12 | 6 | 6 | 6 |  |
| Hydrogen | 1 | 1 |  |  |  |  |
| Lithium | 3 |  | 3 |  | 3 |  |
| Magnesium | 12 | 24 |  |  |  |  |
| Boron | 5 | 11 |  |  |  |  |