

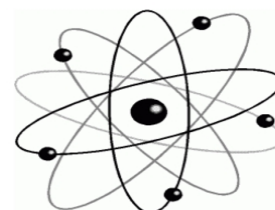
Chapter 4 Review Worksheet

Name: _____ Block: _____ Date: _____

- Which of the following is the smallest particle of an element that can exist by itself?
 - Ion
 - Atom**
 - Molecule
 - Compound

- Which of the following correctly matches the subatomic particle with its charge and location in an atom?

| | Subatomic Particle | Location | Charge |
|----------|--------------------|--------------|-----------------|
| A | Proton | Nucleus | Neutral |
| B | Neutron | Nucleus | Positive |
| C | Electron | Shell | Positive |
| D | Electron | Shell | Negative |



- Which of the following are responsible for bonding?
 - Nuclei
 - Protons
 - Neutrons
 - Electrons**
- How do you calculate the number of neutrons in an atom's nucleus?
 - Atomic number
 - Mass number – atomic number**
 - Mass number + atomic number
 - Number of electrons + Number of protons

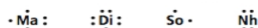
- Which of the following describes a cation?

| | |
|------|--|
| I. | Examples include Ca ²⁺ and Al ³⁺ |
| II. | A metal atom that has lost electrons |
| III. | Has an equal number of protons and electrons |

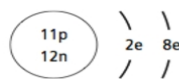
- I and II only**
- I and III only
- II and III only
- I, II and III

- Which of the hypothetical elements shown below represents a metal?

- Ma
- Di
- So**
- Nh



- Which of the following does the Bohr model represent?
 - A neon atom
 - A sodium atom
 - A sodium ion**
 - A fluorine atom



- Draw Bohr diagrams for the following elements:

a) Nitrogen atom



b) Potassium ion



- Draw Lewis diagrams to show the following chemical bonds:

a) CaCl₂ :



b) CO₂ :

