Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ions and Lewis Dot Structures Study Guide**

Ions:

1. What is an ion?

2. What do we call a positively charged ion?

3. What do we call a negatively charged ion?

4. Complete the following table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** | **Group #** | **# of valence shell electrons** | **Drawing of neutral atom** | **# electrons gained/lost** | **Charge of Atom** |
| Na  Sodium |  |  |  | Gain --- Lost |  |
| Mg  Magnesium |  |  |  | Gain --- Lost |  |
| Be  Beryllium |  |  |  | Gain --- Lost |  |
| Li  Lithium |  |  |  | Gain --- Lost |  |
| O  Oxygen |  |  |  | Gain --- Lost |  |
| Cl  Chlorine |  |  |  | Gain --- Lost |  |

Lewis Dot Structures:

5. Why do we use Lewis dot structures?

6. What is the slogan of the octet rule?

7. Complete the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Element** | **Group Number (PT)** | **# of Valance Electrons** | **Lewis Dot Structure** |
| Calcium |  |  |  |
| Carbon |  |  |  |
| Hydrogen |  |  |  |
| Helium |  |  |  |
| Oxygen |  |  |  |