Biology, Castle View High School Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Jason R Mayberry, PhD

**Lewis Dot Structures**

**Draw the Lewis Dot Structure for each of the following.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Atomic Number** | **1** |  |  |  |  |  |  | **2** |
| **Atomic Symbol** | **H** |  |  |  |  |  |  | **He** |
| **Name** | **Hydrogen** |  |  |  |  |  |  | **Helium** |
| **Lewis Dot Structure** (*When Neutral*) |  |  |  |  |  |  |  |  |
| **Atomic Number** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **Atomic Symbol** | **Li** | **Be** | **B** | **C** | **N** | **O** | **F** | **Ne** |
| **Name** | **Lithium** | **Beryllium** | **Boron** | **Carbon** | **Nitrogen** | **Oxygen** | **Fluorine** | **Neon** |
| **Lewis Dot Structure** (*When Neutral*) |  |  |  |  |  |  |  |  |
| **Atomic Number** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
| **Atomic Symbol** | **Na** | **Mg** | **Al** | **Si** | **P** | **S** | **Cl** | **Ar** |
| **Name** | **Sodium** | **Magnesium** | **Aluminum** | **Silicon** | **Phosphorous** | **Sulfur** | **Chlorine** | **Argon** |
| **Lewis Dot Structure** (*When Neutral*) |  |  |  |  |  |  |  |  |

**Ions**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Atomic Number** | **1** |  |  |  |  |  |  | **2** |
| **Atomic Symbol** | **H** |  |  |  |  |  |  | **He** |
| **Name** | **Hydrogen** |  |  |  |  |  |  | **Helium** |
| **Valence Electrons** (*When Neutral*) |  |  |  |  |  |  |  |  |
| How many Valence Electron would need to be **gained** ***or*** **lost** to fill or empty (respectively) the valence shell |  |  |  |  |  |  |  |  |
| **Charge** ***IF*** gained or lost valence electrons to fill or empty the valence shell |  |  |  |  |  |  |  |  |
| Will form ions? (**Yes or No**) |  |  |  |  |  |  |  |  |
| **Atomic Number** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **Atomic Symbol** | **Li** | **Be** | **B** | **C** | **N** | **O** | **F** | **Ne** |
| **Name** | **Lithium** | **Beryllium** | **Boron** | **Carbon** | **Nitrogen** | **Oxygen** | **Fluorine** | **Neon** |
| **Valence Electrons** (*When Neutral*) |  |  |  |  |  |  |  |  |
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| **Charge** ***IF*** gained or lost valence electrons to fill or empty the valence shell |  |  |  |  |  |  |  |  |
| Will form ions? (**Yes or No**) |  |  |  |  |  |  |  |  |
| **Atomic Number** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
| **Atomic Symbol** | **Na** | **Mg** | **Al** | **Si** | **P** | **S** | **Cl** | **Ar** |
| **Name** | **Sodium** | **Magnesium** | **Aluminum** | **Silicon** | **Phosphorous** | **Sulfur** | **Chlorine** | **Argon** |
| **Valence Electrons** (*When Neutral*) |  |  |  |  |  |  |  |  |
| How many Valence Electron would need to be **gained *or* lost** to fill or empty (respectively) the valence shell |  |  |  |  |  |  |  |  |
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| Will form ions? (**Yes or No**) |  |  |  |  |  |  |  |  |