Name: _____ Period:_____ Due Date:_____

# Electron Configuration Homework Answers

1. **Complete the table for the following elements:**

| Element | Number of protons | Number of neutrons | Number of electrons | Electron Configuration |
|---|---|---|---|---|
| | 1 | 0 | | |
| Carbon | | | 6 | 2,4 |
| Aluminium | 13 | | 13 | |
| Sulfur | | 16 | | |

2. **How many electrons...**

   a. Does potassium have in its third energy level?

   b. Does nitrogen have in its first energy level?

   c. Does chlorine have in its highest energy level?

3. **Describe the relationship between the number of energy levels and the distance from the nucleus.**

4. **Draw the following electron configuration diagrams:**

   a. Helium

   b. Phosphorous

Name: _____ Period:_____ Due Date:_____

# Electron Configuration Homework Answers

1. **Complete the table for the following elements:**

| Element | Number of protons | Number of neutrons | Number of electrons | Electron Configuration |
|---|---|---|---|---|
| | 1 | 0 | 1 | 1, |
| Carbon | 4 | 4 | 6 | 2,4 |
| Aluminium | 13 | 14 | 13 | 2,8,3 |
| Sulfur | 16 | 16 | 16 | 2,8,6 |

2. **How many electrons...**

   a. Does potassium have in its third energy level?

   8

   b. Does nitrogen have in its first energy level?

   2

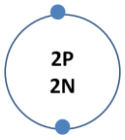
   c. Does chlorine have in its highest energy level?

   7

3. **Describe the relationship between the number of energy levels and the distance from the nucleus.**
   The distance from the nucleus increases with each subsequent energy level/Electrons which occupy higher energy levels are found further away from the nucleus.

4. **Draw the following electron configuration diagrams:**

   a. Helium




   b. Phosphorous