**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_**

**Electron Configuration Worksheet (Bohr Diagram) Physical Science**

**Problem:** How does a Bohr diagram of various atoms look like?

**Materials:** Periodic Table, Paper and colored pencils

**Procedure:**

1. Use the periodic table to find the number of protons, neutrons and electrons in a lithium atom.
2. In the space provided, draw a circle about 2 cm in diameter. (this is the nucleus of the atom)
3. Write the number of protons in the circle and label these as “P+”
4. Write the number of neutrons in the circle and label these as “N”
5. Now draw a circle around the nucleus representing the first energy level.
6. In this circle, fill in the correct number of electrons, labeling these with “e-".
7. If necessary, continue to draw more energy levels. (Remember, first energy level can hold up to 2 electrons, second energy level can hold up to 8 and the third up to 18)
8. Repeat steps 1-7 for Nitrogen and Silicon in the spaces provided
9. Answer questions that follow.

**Lithium Atom Nitrogen Atom Silicon Atom**

**Questions:**

1. How many total electrons does an atom of each element have?

Lithium\_\_\_\_\_\_\_\_\_\_ Nitrogen\_\_\_\_\_\_ Silicon\_\_\_\_\_\_

1. How many valence electrons does an atom of each element have?

Lithium\_\_\_\_\_\_\_\_\_\_ Nitrogen\_\_\_\_\_\_ Silicon\_\_\_\_\_\_

1. Explain what the charges are for electrons, protons and neutrons:
2. How many more electrons are needed to fill their outer energy level?

Lithium\_\_\_\_\_\_\_\_\_\_ Nitrogen\_\_\_\_\_\_

1. Draw Lewis Electron Dot Structures for Lithium, Nitrogen and Silicon below: