**GPS – Lewis Dot Diagrams**

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

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| ***Bellwork – complete quietly on your own!*** |
| http://duch.sd57.bc.ca/~rmcleod/Chemists_Corner/Bohr_Carbon_Ion_files/Carbon.jpg | 1. What are valence electrons?
2. How can you figure out valence electrons?
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| 1. Each column is called a “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”
2. Each period represents an energy level within the atom.
3. Each element in a group has the same number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in their outer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the valence level).
4. Electrons in the outer shell are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| ***Valence electrons*** |
| 1. Valence electrons are the electrons in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occupied energy level of the atom.
2. Valence are the only electrons generally involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*Bohr Atomic Structures*1. The first energy level can contain \_\_\_\_\_\_\_\_\_ electrons.
2. The second and third levels can contain \_\_\_\_\_\_\_\_\_ electrons.
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| ***Lewis Dot Diagrams*** |
| 1. Lewis Dot diagrams are a notation showing the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ surrounding the atomic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. First, find out which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your element is in.
3. This will tell you the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ electrons your element has.
4. You will ONLY draw the valence electrons.

Let’s try carbon.1. Write the element symbol.
2. Carbon is in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ group so it has 4 valence electrons.
3. Starting at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, draw 4 electrons (or dots), around the element symbol.

Draw it in the box.Using your periodic table, try these elements in the spaces below.1. H 2) P 3) Ca

 4) Ar 5) Cl 6) Al |

***Now, move onto the activity on the next page!***