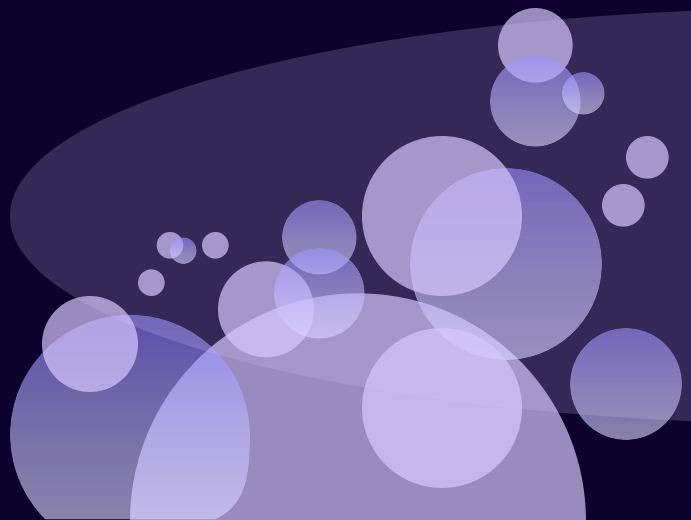




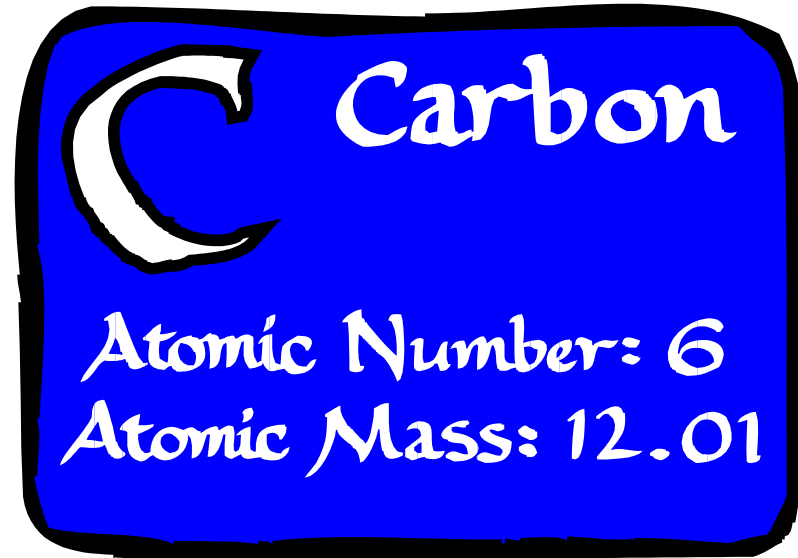
# How to Draw Bohr Diagrams



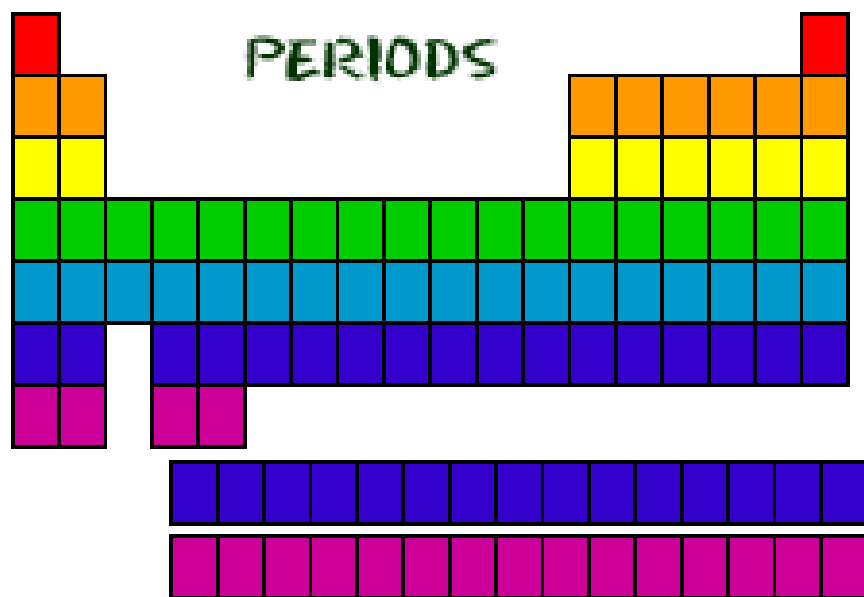
[www.middleschoolscience.com](http://www.middleschoolscience.com) 2008  
Edits made by Mrs. Bartels, 2013

# Bohr Diagrams

- 1) Find your element on the periodic table.
- 2) Determine the number of electrons – it is the same as the atomic number.
- 3) This is how many electrons you will draw.

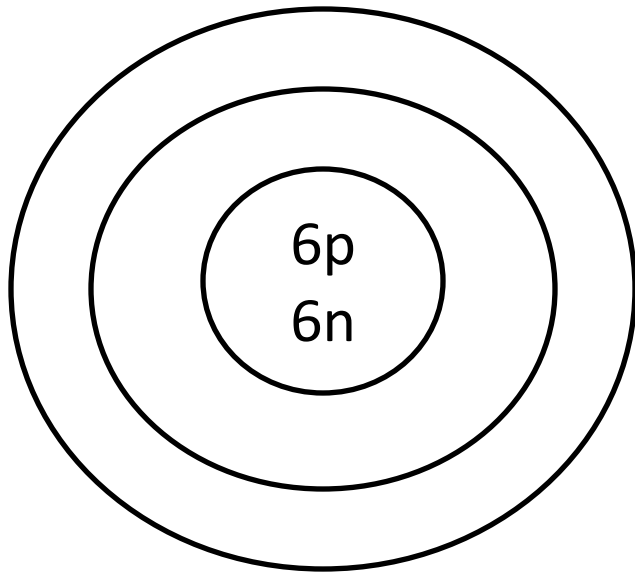


# Bohr Diagrams



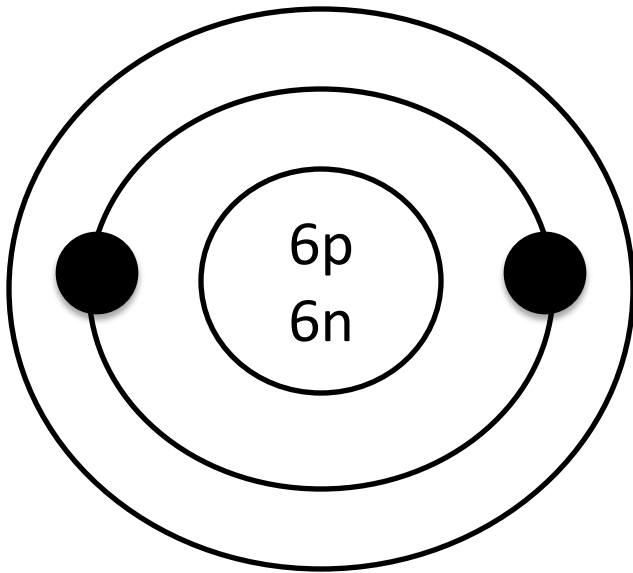
- Find out which period (row) your element is in.
- Elements in the **1<sup>st</sup> period** have one energy level.
- Elements in the **2<sup>nd</sup> period** have two energy levels, and so on.

# Bohr Diagrams



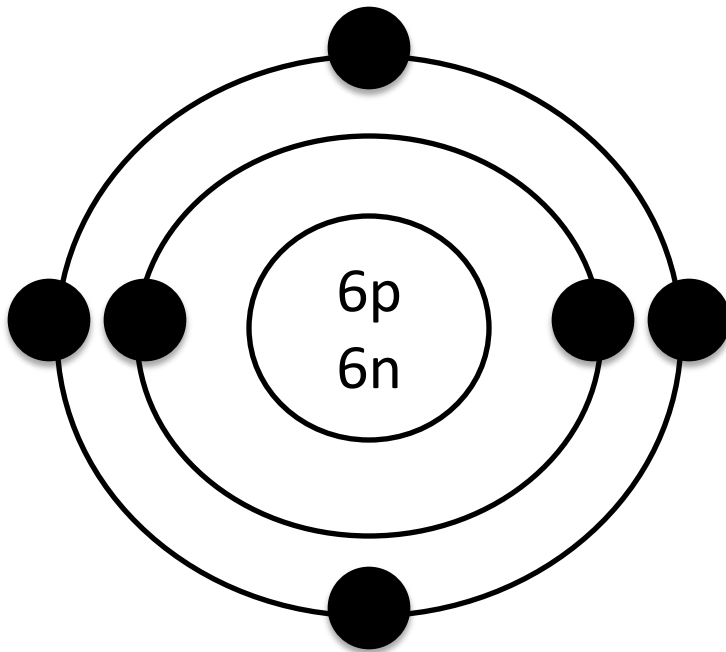
- 1) Draw a nucleus with the number of protons and neutrons inside.
- 2) Carbon is in the 2<sup>nd</sup> period, so it has two energy levels, or shells.
- 3) Draw the shells around the nucleus.

# Bohr Diagrams



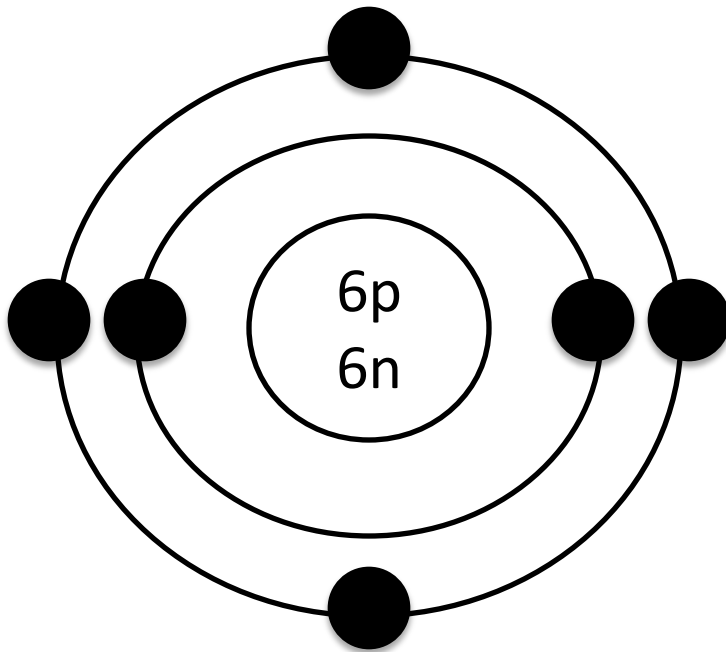
- 1) Add the electrons.
- 2) Carbon has 6 electrons.
- 3) The first shell can only hold 2 electrons.

# Bohr Diagrams



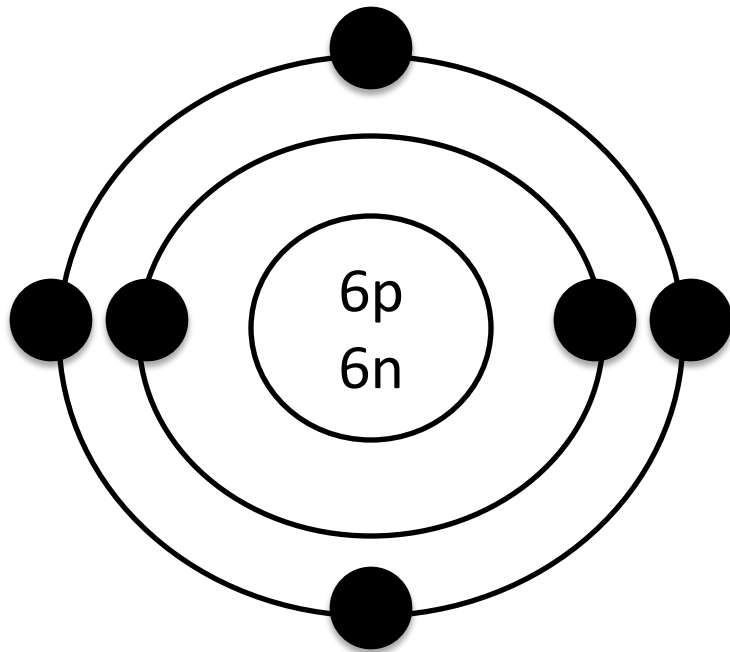
- 1) Since you have 2 electrons already drawn, you need to add 4 more.
- 2) These go in the 2<sup>nd</sup> shell.
- 3) Add one at a time - starting on the right side and going counter clock-wise.

# Bohr Diagrams



- 1) Check your work.
- 2) You should have 6 total electrons for Carbon.
- 3) Only two electrons can fit in the 1<sup>st</sup> shell.
- 4) The 2<sup>nd</sup> shell can hold up to 8 electrons.
- 5) The 3<sup>rd</sup> shell can hold 18, but the elements in the first few periods only use 8 electrons.

# Bohr Diagrams



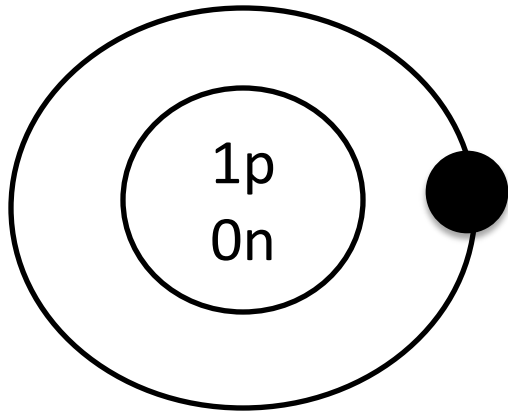
Try the following elements on your own:

- a) H
- b) He
- c) O
- d) Al
- e) Ne
- f) K



# Bohr Diagrams

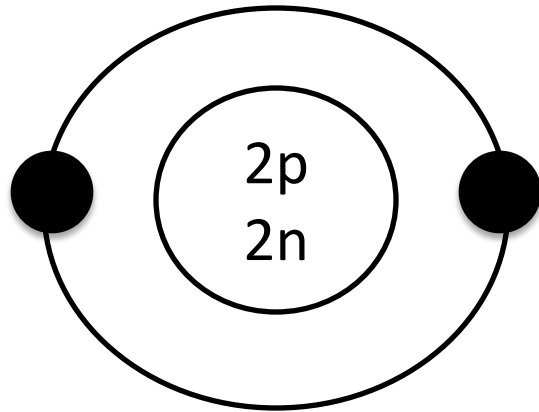
Try the following elements on your own:



- a) H – **1 electron**
- b) He
- c) O
- d) Al
- e) Ne
- f) K

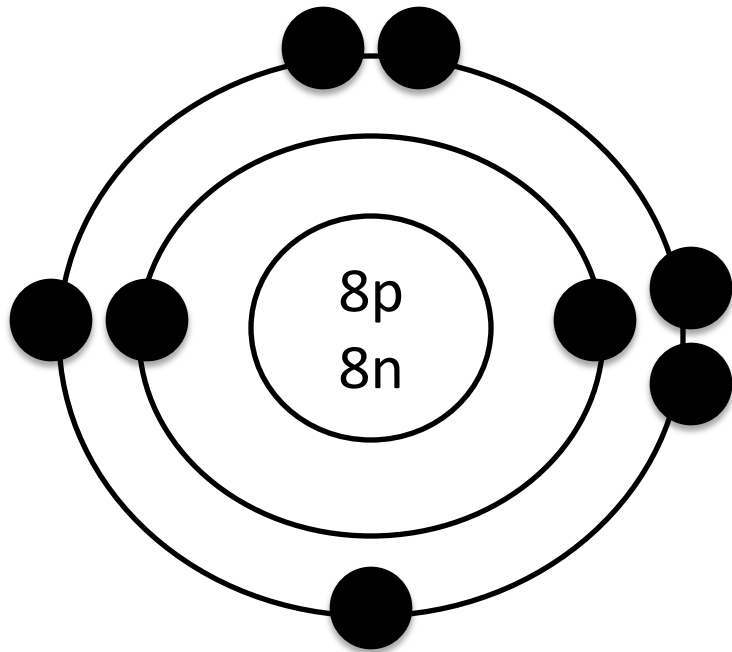
# Bohr Diagrams

Try the following elements on your own:



- a) H
- b) He - **2 electrons**
- c) O
- d) Al
- e) Ne
- f) K

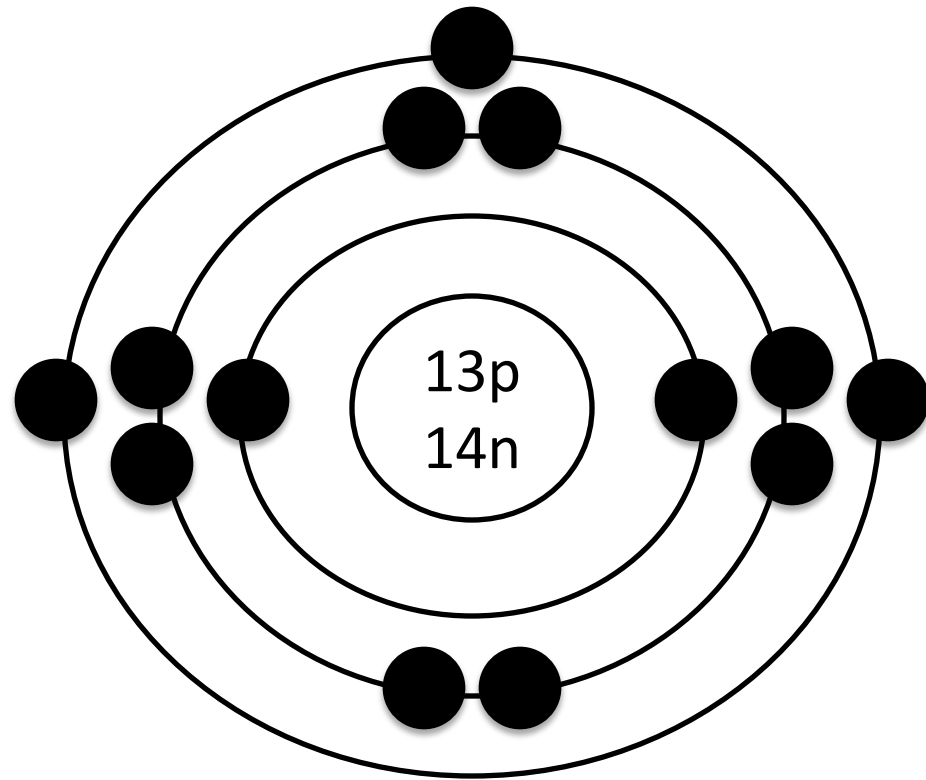
# Bohr Diagrams



Try the following elements on your own:

- a) H
- b) He
- c) O - **8 electrons**
- d) Al
- e) Ne
- f) K

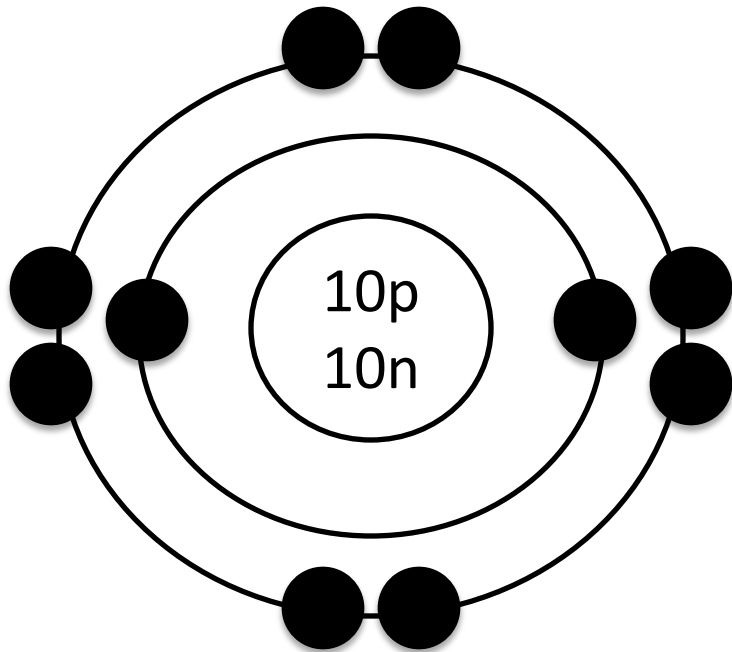
# Bohr Diagrams



Try the following elements on your own:

- a) H
- b) He
- c) O
- d) Al - **13 electrons**
- e) Ne
- f) K

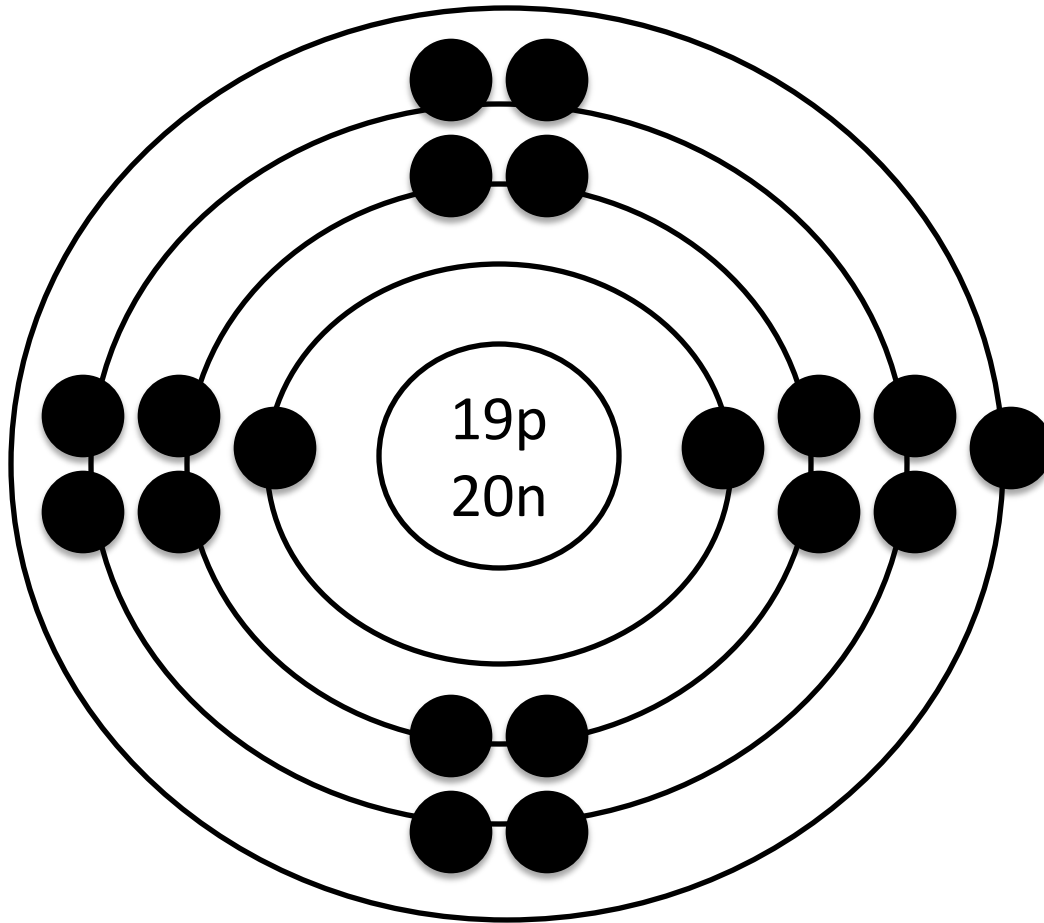
# Bohr Diagrams



Try the following elements on your own:

- a) H
- b) He
- c) O
- d) Al
- e) Ne - **10 electrons**
- f) K

# Bohr Diagrams



Try the following elements on your own:

- a) H
- b) He
- c) O
- d) Al
- e) Ne
- f) K - **19**

**electrons**