

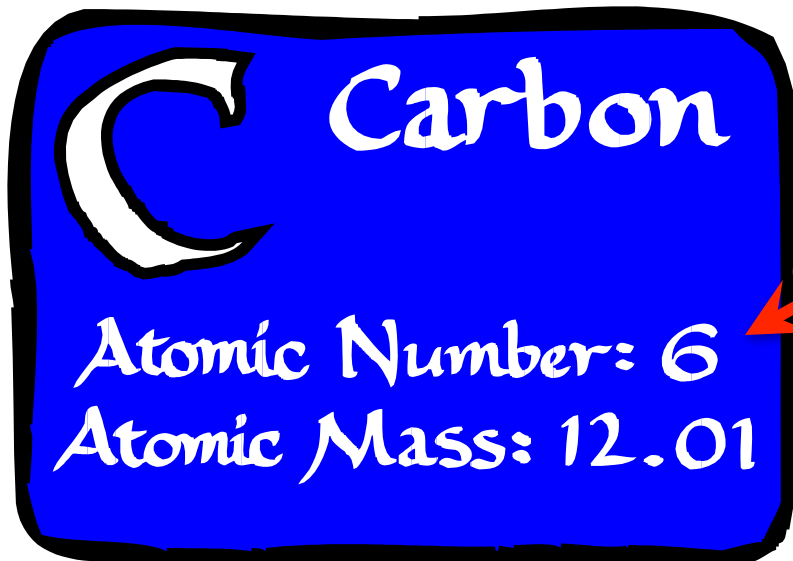
# Periodic Table

## Chapter 15

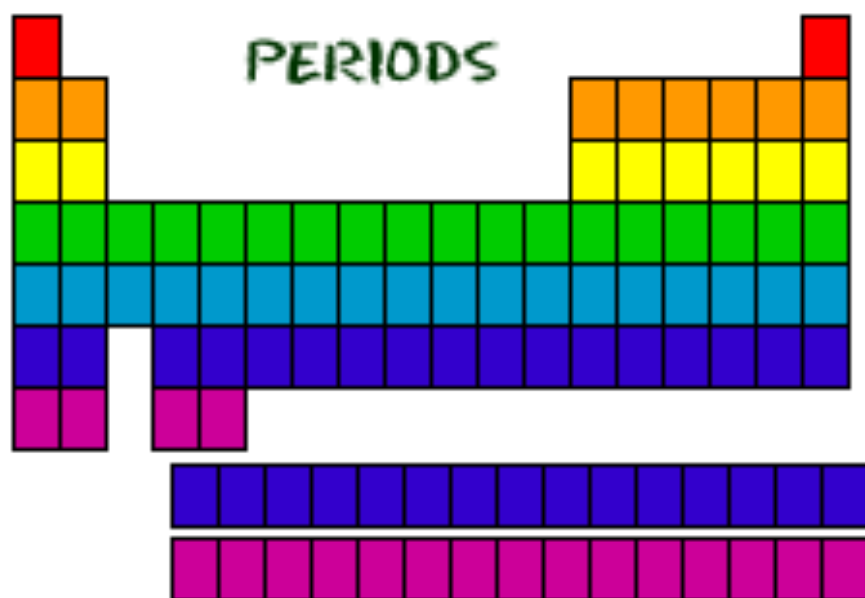
### How to Draw Bohr Diagrams

# Bohr Diagrams

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



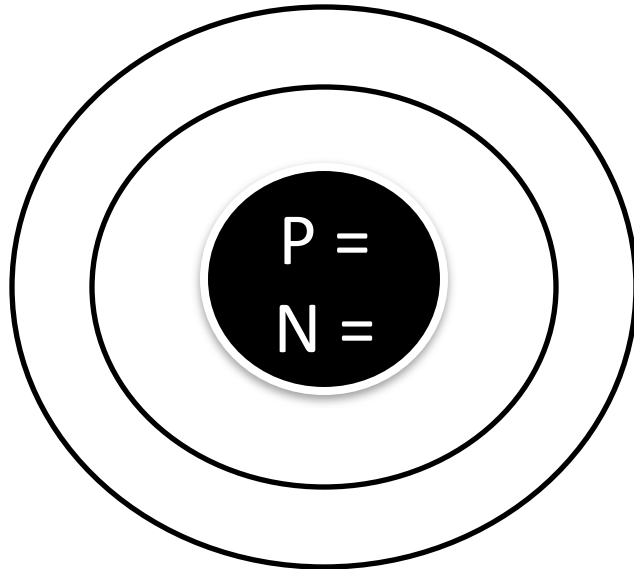
# Bohr Diagrams



- 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

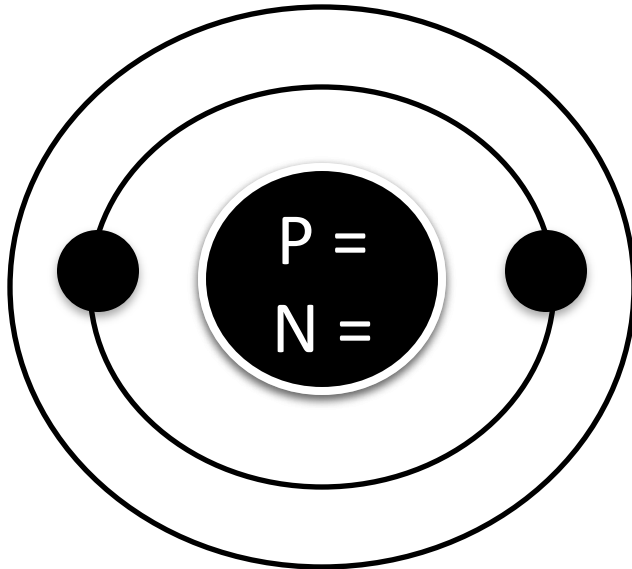
## Carbon



- 1) Draw a nucleus with number of protons and neutrons.
- 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

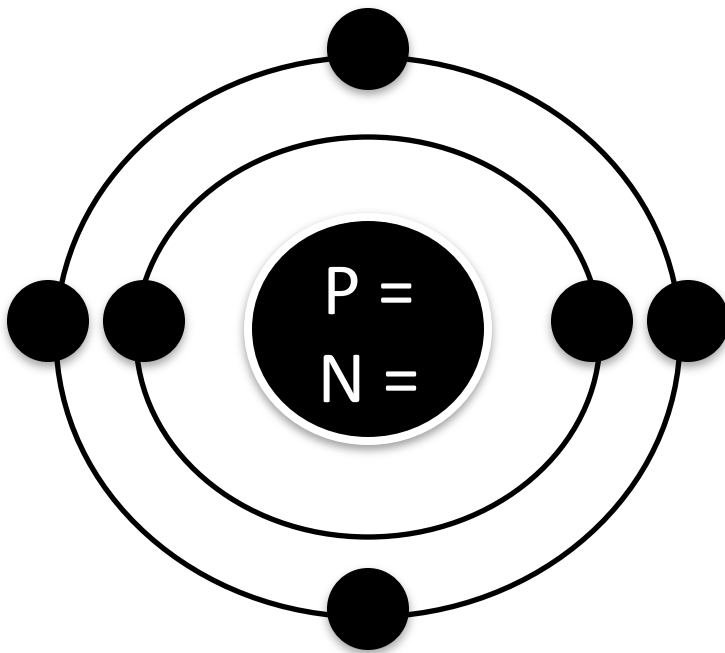
## Carbon



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

# Bohr Diagrams

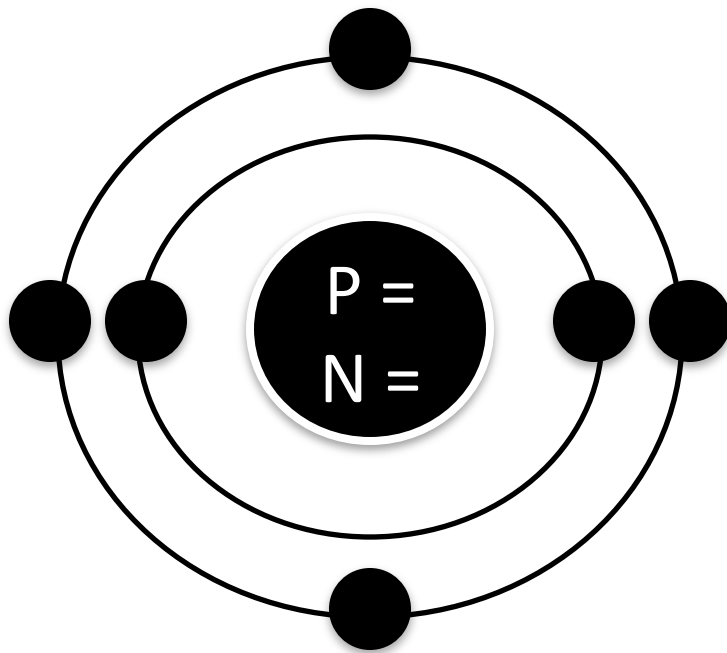
## Carbon



- 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 12:00 and going clockwise (3:00, 6:00, 9:00 & 12:00)

# Bohr Diagrams

## Carbon



- 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.