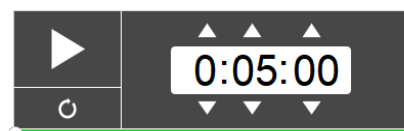
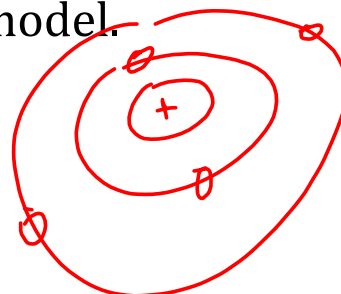


Warm Up

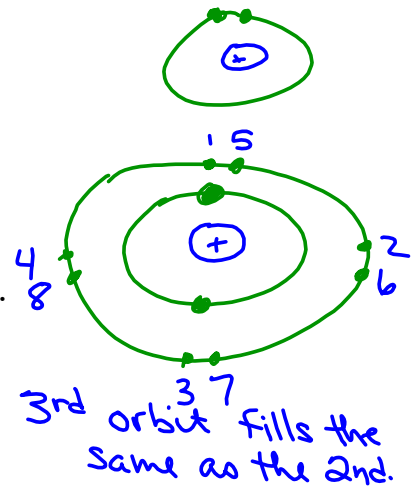


- TG How many protons does chlorine have? 17
- 'G Which element has mass number 51? V (Vanadium)
- ,G How many neutrons does fluorine have? 10
- IG Who proposed the nuclear model of the atom? ¹⁹⁻⁹ Rutherford
- uG Who discovered the electron? Thompson
- G Draw a picture of Bohr's atom model.

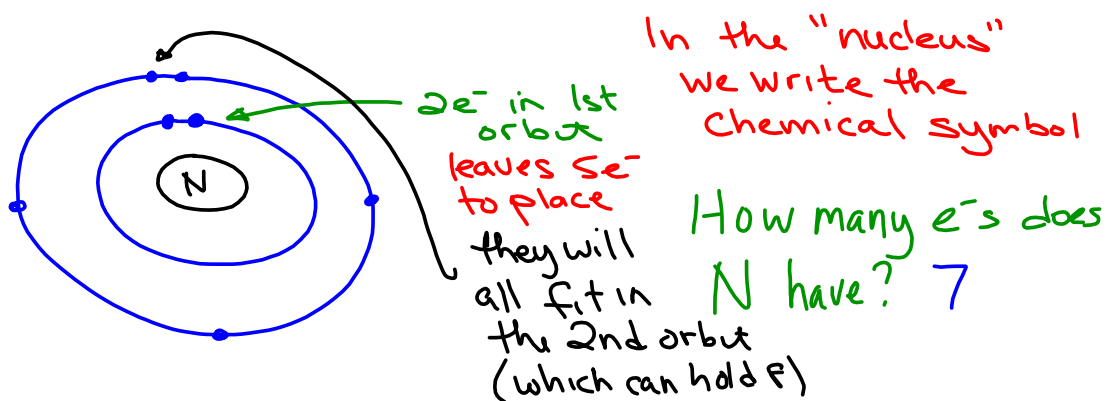


Bohr Diagrams

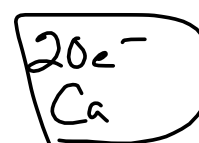
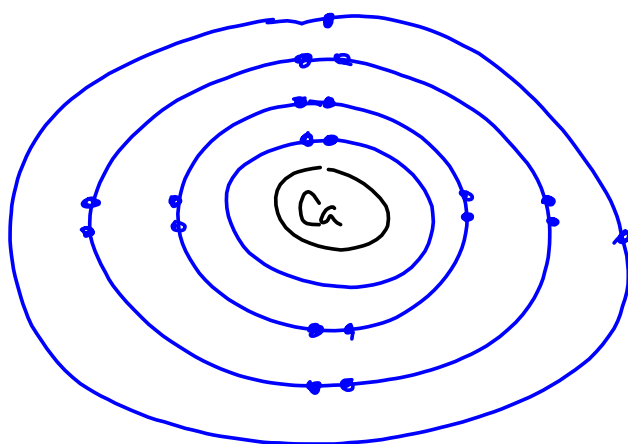
- Electrons move around the nucleus in orbits (shells, energy levels)
- The maximum number of electrons in the first three orbits is **2, 8, 8**
- The first half of the electrons in any shell are placed at the N-E-S-W points of the diagram. The other half are placed in pairs starting at N.
- If there are more than 18 electrons place them in the fourth orbit.



1. Draw a Bohr diagram of a nitrogen atom.



2. Draw a Bohr diagram of a calcium atom.



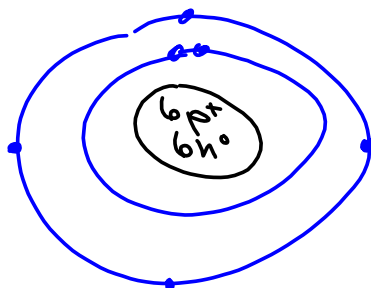
Boron

Potassium

Bohr-Rutherford Diagrams

- The same as a Bohr diagram but we write the number of protons and neutrons in the center of the diagram (represents the nucleus)

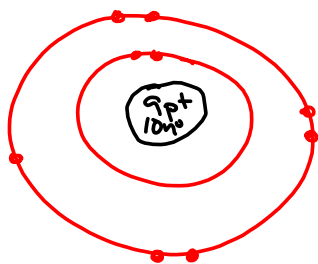
Ex. Carbon



Need Mass # 12
Atomic # 6 e⁻s
p⁺s
12 - 6 = 6 n⁰s

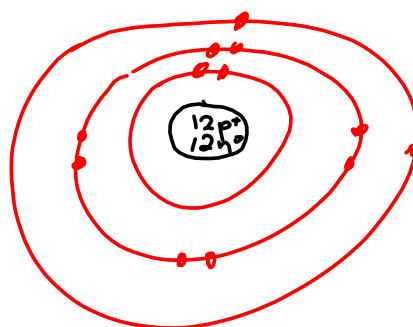
Fluorine

9, 19



Magnesium

12, 24



Bohr diagram worksheet - complete the Bohr diagrams for the first 18 elements.

Look for any patterns as they may relate to the periodic table and the arrangement of the elements.