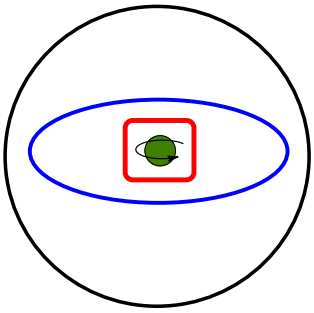
CONCEPT: ELECTRONIC STRUCTURE

- The modern description of the electronic structure of an atom is based on the following principles:
  - □ **Shell**: The orbit that electrons take as they travel around the nucleus.
  - □ **Subshell** (Sublevel): The region where a group of electrons in an atom are located within the same *shell*.
    - □ Subshells use the variables of _____, _____, _____, and _____.
  - □ **Orbital**: The region within a *subshell* where specific electrons can be found.

Electronic Structure



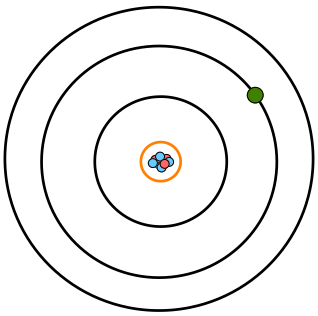
Name	Description
Shell	_____ and _____ of a shell
Subshell	_____ of an orbital within a subshell
Orbital	_____ of electrons in a set of orbitals
Electron	_____ of electron in an orbital

- **Breakdown:** The Atom → _____ → _____ → _____ → _____

EXAMPLE: If the path of an electron within an orbital can be seen as an ellipses, which best describe this image?

a) Shell b) Subshell c) Energy level d) Electron

PRACTICE: Which term can best describe the electron shown in the following image?



a) Shell b) Subshell c) Sublevel d) Electron