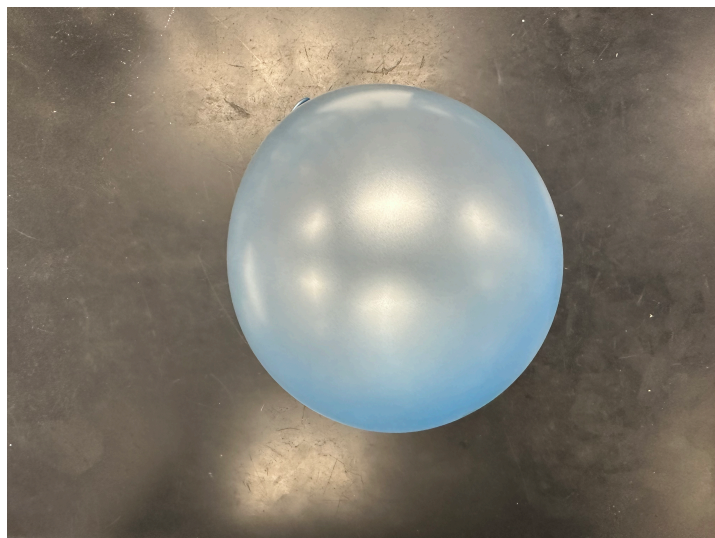


I use a single balloon to represent an s orbital, two balloons tied together to represent a p-orbital, four balloons attached with a piece of 2" PVC to represent a d orbital and six balloons attached with a piece of 3" PVC to represent an f orbital. I explain that each orbital can hold a maximum of two electrons and that all the p (or d or f) orbitals in a particular energy level make up a sublevel (ie. 3p).

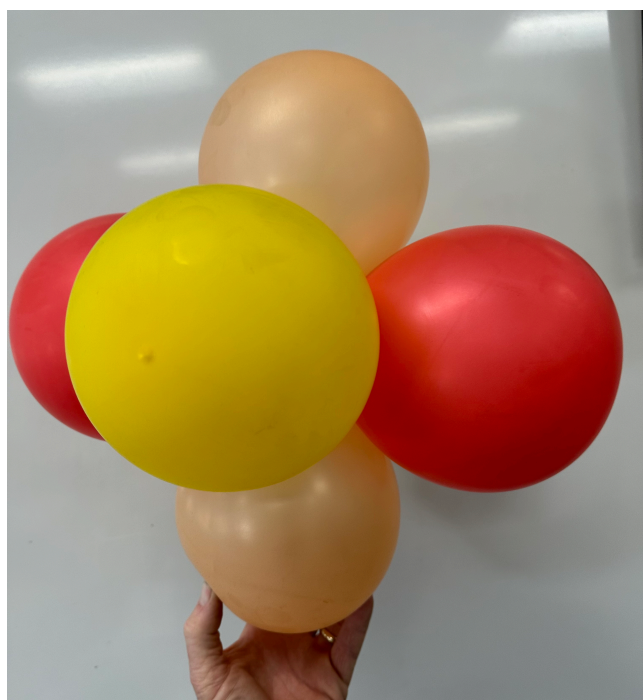
To make the PVC holders, drill 3/8 inch holes in the side and make slots along the edge. Push the balloon knot through the hole and secure it in the slot.



s orbital



p orbitals

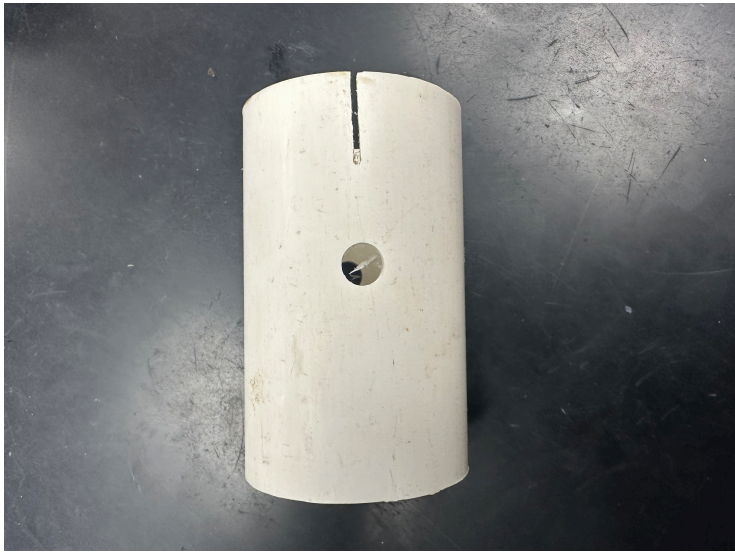


p sublevel (3 p orbitals)



d orbital





2" PVC with 4 holes and slots for a d orbital



f orbital

The electron cloud consists of complex shapes (orbitals) based on mathematical probability.

Matter behaves differently at the atomic and subatomic level than it does at the macroscopic level.

My vision of an atom:

