

Part II: Build an Atomic Model

Name _____

Your final task will be to make a model of an atom. Since atoms are hard to visualize, building a model will help us understand the behavior of atoms. Your model will be based on the Bohr model of the atom. Although the Bohr model of an atom is outdated, it still reinforces the concept that electrons are located on various energy levels. (Modern atomic theory states the electron regions have complex shapes, therefore it is not feasible to build an atom model based on modern atomic theory).

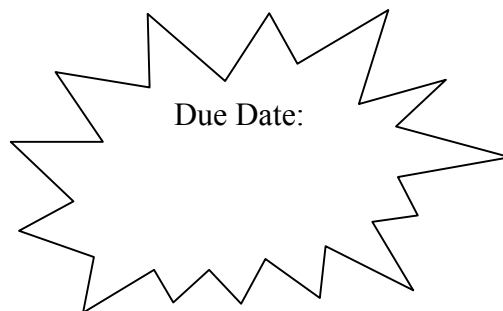
Your atom model should be **3-Dimensional** and include protons, neutrons, and electrons in the appropriate locations.

Your project does not have to be an expensive one. There should be several building materials you can find for free around you house that can be repurposed for your project. Be creative! You will be really surprised what you can find when you look through the various rooms in your house.

- Edible projects are welcome as long as the food is non-perishable; this is not a mold experiment! (marshmallows, gum drops, macaroni, etc).
- Please check with your parents for approval before nabbing materials from around your house!
- Maximum dimensions: 3 ft. x 3ft (I have to fit all the projects in the room)

Below is the rubric for your model. Refer to it often when building your model:

- _____ (2 pts) Correct number of protons
- _____ (2 pts) Correct placement of protons
- _____ (2 pts) Correct number of neutrons
- _____ (2 pts) Correct placement of neutrons
- _____ (2 pts) Correct number of electrons
- _____ (5 pts) Correct placement of electrons
- _____ (2 pts) Relative size of particles (protons and neutrons are the same size and electrons are smaller)
- _____ (3 pts) Key - identifying each particle and number of each particle
- _____ (5 pts) Craftsmanship – project is structurally sound and will not easily fall apart or lose pieces; is attached to a base/stand or can be hung up
- _____ (5 pts) Creativity – well chosen materials, color, uniqueness, etc.



Total / 30

Comments:

Ideas for Build an Atom Project: cotton balls, candy, macaroni, straws, ornaments, felt, pipe cleaners, toothpicks, shoebox, beads, paperclips, foam, yarn, cardboard, wood, Styrofoam, coat hangers, coins, army men, figurines, legos, wire, clay, play-doh, ping-pong balls, construction paper, glitter, embroidery hoops, sticks, leaves, fake flowers, ribbon, aluminum foil and many more. The shape is not as important as size...make sure protons and neutrons are the same size and electrons are smaller.