
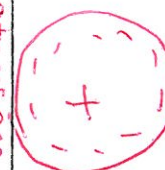





MODELS OF THE ATOM - 313-314
pgs 5-7

Name Key

	DALTON	THOMSON	RUTHERFORD	BOHR	ELECTRON CLOUD Current Model
1. Draw a picture of the model	 Solid sphere				
2. General description	-elements composed of atoms -atoms are identical -atoms of different elements have diff. masses -atoms make compounds	-atoms are not solid spheres, they contain smaller subatomic particles	-atom is mostly empty space -nucleus is the center and has positive charges	"Planetary model" -electrons move around nucleus in orbits	-electrons exist in electron cloud
3. Date proposed	1808	end of 1800's	early 1900's	1913	1926
4. Analogy to food or object	pool ball	-cocoa & bits (plum-pudding)	peach	onion	fan at high speed
5. How the model was discovered	pool ball -experimented with different gases	-different gases placed in tubes generated stream of particles and cathode ray current	-used alpha particles to bombard a piece of gold foil	X	X
6. What was known about the particles in the atom (protons, neutrons, electrons)	-atoms are tiny hard spheres made up of tiny, indivisible particles	-discovered electrons (negative charge) -atom is neutral, must contain enough positive charge to become neutral (to balance the negative charge)	-center of atom was a nucleus w/ protons (positive) -most of the mass of an atom in the nucleus -protons massive	-electrons move around the nucleus in fixed orbits with a set amount of energy -electrons move between energy levels	-neutrons found in nucleus -electrons do not orbit nucleus -electrons don't within an energy level in changing paths (electron cloud)

→ electrons stuck in place