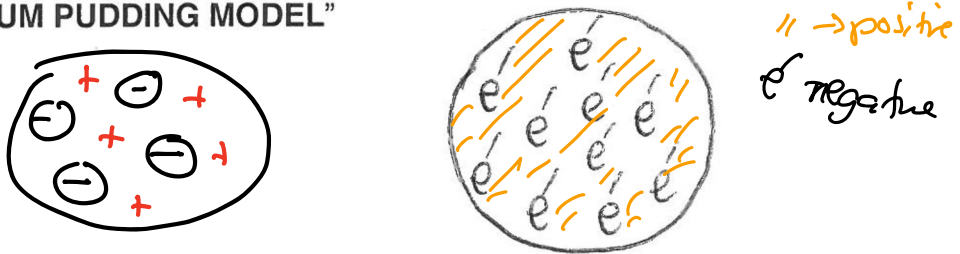


EARLY MODELS OF THE ATOM

JOHN DALTON- believed the atom to be a solid sphere. (1807)
AKA: The "BILLIARD BALL MODEL"

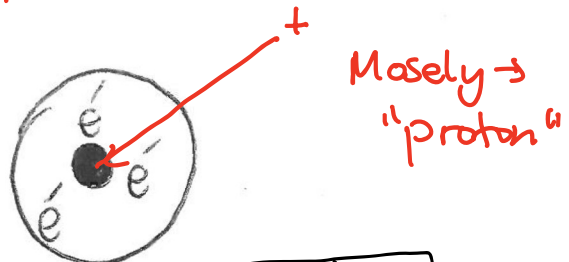


JJ THOMPSON- believed that protons and electrons were scattered throughout the atom like raisins in plum pudding. (1903)
AKA: the "PLUM PUDDING MODEL"



ERNEST RUTHERFORD believed that the atom had a densely packed center (nucleus) that held positive particles (protons) with negative particles (electrons) circulating around it. (1911)
AKA: The "PLANETARY MODEL"

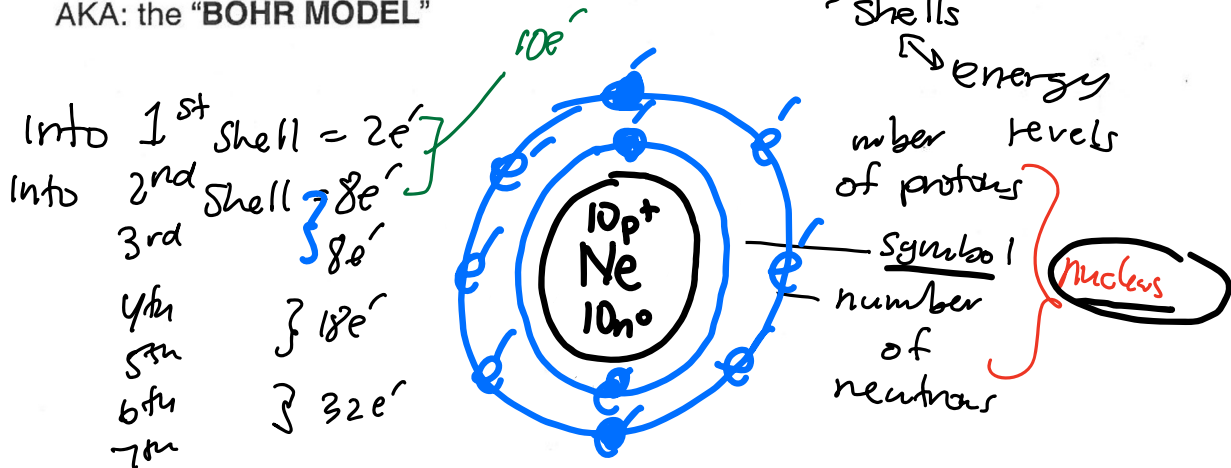
"gold foil" experiment } discovery of the nucleus



→ Chadwick : proposed the idea of neutrons

NEILS BOHR- believed the atom had a nucleus that consists of both protons and NEUTRONS with electrons arranged in specific ORBITS around the nucleus. (1913)

AKA: the "BOHR MODEL"



* QUANTUM MECHANIC MODEL : *

* details to follow

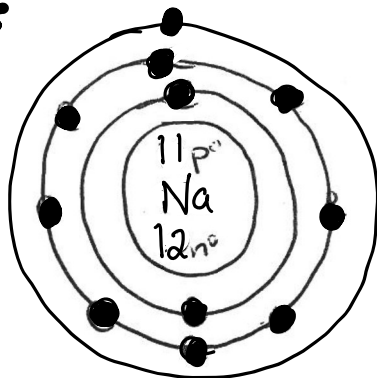
DRAWING A BOHR MODEL:

1. Place the element symbol in the center of the nucleus
2. Indicate the number of both protons and neutrons in the nucleus
3. Place electrons into the appropriate "ORBITS" until you run out of electrons: 2, 8, 8, 18, 18, 32, 32

↑ shells

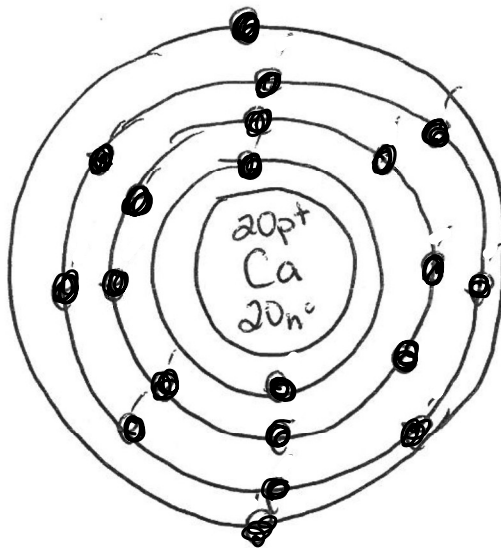
Draw a Bohr Model of the following atoms:

a. Na



$Na \neq Na^+$
 $11e^- = 11p$ $10e^- = 11p$

b. Ca



c. Zr

