

**CHAPTER 4 STUDY GUIDE FOR CONTENT MASTERY**

**Section 4.2 Subatomic Particles and the Nuclear Atom**

*In your textbook, read about discovering the electron and the nuclear atom.*

For each item in Column A, write the letter of the matching item in Column B.

**Column A**

- \_\_\_\_\_ 1. Proposed the nuclear atomic model
- \_\_\_\_\_ 2. Determined the mass-to-charge ratio of an electron
- \_\_\_\_\_ 3. Calculated the mass of an electron

**Column B**

- a. Thomson
- b. Millikan
- c. Rutherford

Draw and label a diagram of each atomic model.

- 4. plum pudding model

- 5. nuclear atomic model

*In your textbook, read about the discovery of protons and neutrons.*

Complete the following table of proton, electron, and neutron characteristics.

Particle	Symbol	Location	Relative Charge	Relative Mass
6. Proton				
7.	n <sup>0</sup>			
8.				1/1840