

202 Chapter 2: Section 1: Annotated Reading Guide (17pts)

To receive credit:

- Write all answers in your bound journal
- When working a problem, show all your math and box your final answer
- 2pt title the entry
- 2pt date the entry

1. Compare Democritus, Newton and Dalton's atomic theory.
2. Explain how three Chemical Laws relate to Dalton's Postulates.
3. What are the subatomic particles?
4. Explain what cathode rays are and how JJ Thomson used them to discover subatomic particles.
5. What is the charge of the particle?
6. How was the mass of the particle determined? Who did it? What is it?
7. What are the three forms of radioactivity?
8. Explain the Rutherford experiment. What theory did his work refute? What did his experiment discover?
9. What is the charge of the subatomic particles?
10. What is an atomic mass unit (AMU)? What is it equal to?
11. What is an angstrom(A)? What is the average diameter of an atom? What is the diameter of average atomic nuclei?
12. What is the AMU of the Proton, Neutron and Electron? What are their Charges?
13. Which of the three subatomic particles may change in quantity and still have the atom retain its elemental characteristics?
14. Explain what the numbers and letter designate in this 
15. What are the four different isotopes of carbon and how are they designated? How are they different?
16. What is 1gram equivalent to in AMU?
17. What is the equation to determine the atomic weight of an element? Explain via calculations how Carbon is determined to be 12.01 amu.