

Unit Three: Atomic Structure & Chemical Quantities

| Learning Targets | Textbook Section: |
|---|-------------------|
| 3.1) Explain how Democritus and John Dalton described atoms. | 4.1 |
| 3.2) Identify instruments used to observe individual atoms. | 4.1 |
| 3.3) Identify three types of subatomic particles. | 4.2 |
| 3.4) Describe the structure of atoms according to the Rutherford model. | 4.2 |
| 3.5) Explain what makes one element different from another. | 4.3 |
| 3.6) Explain how isotopes of an element differ. | 4.3 |
| 3.7) Calculate the atomic mass of an element. | 4.3 |
| 3.8) Convert among the count, and mass of an element. | 10.1 |
| 3.9) Explain how chemists count the number of atoms, molecules, or formula units of a substance. | 10.1 |
| 3.10) Determine the molar mass of an element. | 10.1 |
| 3.11) Describe how to convert the mass of a substance to the number of moles of a substance, and moles to mass. | 10.2 |

Suggested Reading:

Chapter 4: Pages 100-119

Chapter 10: Pages 304-323

End of Chapter Practice:

Chapter 4: 35, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 61, 64, 66, 67, 69, 72

Chapter 10: 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65