

USMLT1: Use standard atomic notation to represent and describe atoms and isotopes. Calculate atomic mass.

Be able to define, explain, identify or provide examples of each of the following:

- Atoms
- Protons
- Electrons
- Neutrons
- Electrons
- Atomic mass
- Atomic number
- Mass number
- Isotope

Textbook Practice

- Page 112 # 17
- Page 117 #s 23, 24
- Page 119 #s 25, 27, 30 – 32
- Page 122 – 123 #s 47, 49 – 52, 55, 65

USMLT2: Describe model of the atom over the past 100 years and compare them to the current quantum mechanical model. Explore and summarize Rutherford's experiment.

Be able to define, explain, identify or provide examples of each of the following:

- Dalton's Model
- Thompson's Model
- Rutherford's Model
- Bohr Model
- Quantum Mechanical Model
- Quantum
- Energy Level
- Orbital
- Orbital Shape

Textbook Practice

- Page 108 #s 9, 12 – 14
- Page 122 – 124 #s 42, 43, 45, 74, 76
- Page 132 #s 1 – 7
- Page 149 #s 22 – 29

USMLT3: Explain and write electron configuration diagrams using Hund's rule, Pauli exclusion principle and the Aufbau principle.

Be able to define, explain, identify or provide examples of each of the following:

- Quantum Numbers
- Electron Configuration
- Noble Gases
- Representative Elements
- Hund's Rule
- Pauli Exclusion Principle
- Aufbau Principle
- Exceptions to Aufbau Principle

Textbook Practice

- Page 135 #s 8, 9
- Page 136 #s 10 – 13
- Page 149 #s 30 – 34, 36, 37, 39