

**SCH3U0**  
**UNIT 1: MATTER, CHEMICAL TRENDS**  
**AND CHEMICAL BONDING**

DAY	ACTIVITY/TOPICS	PRACTICE/HOMEWORK
1	Distribute and Discuss Course outline and evaluation. Review symbols for first 20 elements along with Fe, Pb, Au, Ag, Hg, Cu, Ni, Zn, Ba and Pt	Review Element Symbols
2	Grade 10 Review. (Text: pg. 4-7, #2-5,9,10-16) <b>Introduction to the Periodic Table</b> (Text; pg. 10-21)	p17: #9-12 p20: #16-19
3	<b>Atomic Theories</b> (Democritus to Rutherford) Txt pg: 23-26 <b>Atomic mass, Mass Number, S.A.N., Isotopes.</b>	Atomic Theorists Jigsaw  Atomic mass: p29: #2-8
4	Calculating <b>Average Atomic mass</b> and <b>Isotopic Abundance.</b>	p166: #6-11; p167: #4-5
5	<b>Radioisotopes:</b> Half- life, Nuclear decay, Nuclear Equations (text: 216-222)  ACTIVITY 1.3.1 – half life	Radioisotopes Worksheet Half-life: p32: 12 Nuclear Eqn's: p219 #3-5, 220 #9-10, 222-223 #3-6)
6	<b>The Bohr Model of the atom:</b> Electromagnetic Spectrum and Line Spectra ACTIVITY 1.4.1.	Spectra: p42: #2-3,
7	<del>VIDEO: atomic structure. Moving towards the quantum model.</del>	Practise calculations and nuclear equations (worksheet?)
8	The <b>Quantum mechanical model</b> (text: 45-47). Electron Arrangement in Atoms, Energy Level Diagrams, Electron Configurations, Orbital diagrams.	p 47 #12  Energy level diagrams/configurations
10-11	<b>Trends in the Periodic Table</b> (text 48-58): metal reactivity, atomic and ionic radii, ionization energy, electron affinity, electronegativity.	Trends q's: p58: #2-4, p59: #2-4; p60: #6  Periodic Trends Assignment Activites 1.5.1 and 1.5.2: p54, p57
12	Introduction to Bonding Stable ions, Lewis symbols <b>Ionic Bonding</b> in three steps	Ions: p71: #2-3, 5 Ionic bonding: p73-74:#9-13