

AP Chemistry

Atomic Structure/Periodicity Assignment Sheet

Date	In Class	Assignment
2/4	POGIL: Electromagnetic Radiation	Read/highlight Chapter 6 outline
2/5	POGIL: Atomic Spectroscopy and Energy Levels	Text problems 6.4, 6.5, 6.7, 6.8 Work on CALM problem set
2/6 half day	Way-back Wednesday: Review problems	Work on science fair projects
2/7	POGIL: The Description of Electrons in Atoms	
2/8	Electron configurations review (Atomic Hotels)	Upload science fair PR in google classroom
2/11	Science Fair PR due POGIL: Photoelectron Spectroscopy	Study for quiz Read/highlight Ch. 7 outline
2/12	Quiz: light equations & e- configs Chapter 6/7 problem set	CALM Chapter 6 in review book
2/13	POGIL: Periodic Trends	Text problems 7.1, 7.4, 7.5
2/14 ♥	Ch. 6/7 Problem Set	Work on CALM problem set
2/15	Flashback Friday: review problems Chapter 6/7 problem set	VACATION WORK AP Classroom assignment (due before class on 2/27) Science fair project
2/25	Lewis structures Formal charge	Chapter 7 in review book Make Chapter 6/7 summary card(s)
2/26	Chapter 6/7 MCQ practice Ch. 6/7 problem set	AP Classroom assignment Finish CALM (due 2/26 by 9:00 pm)
2/27	Chapter 6/7 Wrapup/review Go over AP Classroom assignment Bring review books to class	Study for test on Chapters 6 & 7
2/28	Chapter 6 & 7 test	Science fair project
3/1	Flashback Friday: review problems	Read/highlight chapter 8 outline
3/6 (G) 3/7 (A)	Beer's Law guided inquiry lab	Prelab assignment for Beer's Law lab Get ready for science fair on 3/8!

Key skills/concepts

- Calculations using light equations (energy, wavelength, frequency)
- Bohr model (shell model)
- Photoelectron spectroscopy and evidence of the shell model
- Electronic transitions
- Quantum numbers, types of orbitals, etc.
- Writing electron configurations
- Relating electron configurations to periodic table
- Knowing periodic trends *and explaining* them (using effective nuclear charge & shielding or coulombic attractions)
 - Atomic size
 - Ionization energy
 - Electronegativity
 - Electron Affinity

Relevant Webcasts (use as needed)

[Light Equations](#) webcast

[Energy Quantization](#) podcast

[Quantum Numbers](#)

[Periodic Trends](#)

[Periodic Trends with Dr Dave](#)

Bookmark these useful links!

Online HW site: <http://chemistry2.csudh.edu/homework/hwintro.html>

Lecture Help Site: <http://chemistry2.csudh.edu/newlehelp/lehelpcs.html> gives solutions after 3 attempts

Interactive practice <http://www.sciencegeek.net/APchemistry/APtaters/directory.shtml>

<http://www.chemmybear.com/stdycrds.html> printable flash cards for each unit

<http://www.shodor.org/unchem/basic/atom/index.html> concise overview!

A cool quantum number/e config tool: http://www.shsu.edu/~chm_tgc/sounds/flashfiles/Quantum.swf

(may not play on Macs...)