

# AP Chemistry

## Atomic Structure/Periodicity Assignment Sheet

Date	In Class	Assignment
2/5	<b>Electrolysis minilab due</b> POGIL: Electromagnetic Radiation	Read/highlight Chapter 6 outline
2/6 Long F	POGIL: Atomic Spectroscopy and Energy Levels	Text problems 6.4, 6.5, 6.7, 6.8 Work on CALM problem set, Part I
2/7 ER	REFRESH DAY	Work on science fair projects
2/8	POGIL: The Description of Electrons in Atoms	CALM Text problems 6.104, 6.72, 6.74, 6.97
2/9 Long B	Organic Friday: Ketones Electron configurations review (Atomic Hotels)	CALM Read/highlight Ch. 7 outline Work on science fair projects
2/12	POGIL: Photoelectron Spectroscopy	
2/13	Chapter 6/7 problem set	CALM upload science fair PR in google classroom
2/14 ♥	<b>Science Fair PR due</b> POGIL: Periodic Trends	Text problems 7.1, 7.4, 7.5 Work on CALM problem set, part 2
2/15	Quiz: light equations & e- configs Ch. 6/7 Problem Set Clicker questions	Text problems 7.105, 7.110 Work on CALM problem set, part 2
2/16	Organic Friday: carboxylic acids Chapter 6/7 problem set	VACATION WORK Chapters 6 & 7 in review book Science fair project
2/26	Lewis structures Formal charge	Make Chapter 6 summary card Finish CALM (due 2/26 by 9:00 pm)
2/27	Chapter 6/7 Wrapup/review Bring review books to class	Make Chapter 7 summary card Study for test: Chapters 6 & 7
2/28	Chapter 6 & 7 test	Work on science fair presentation
3/1	Complex Ion Reactions	
3/2	Organic Friday: Esters Review FRQ/Blast from the past SCIENCE FAIR	Read/highlight chapter 8 outline

### 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](http://www.shsu.edu/~chm_tgc/sounds/flashfiles/Quantum.swf)

(may not play on Macs...)