

# 8th Grade ADVANCED Science Syllabus 2013 Wks: 9-16 1 pt ec

Web Site: <http://mrsgillumsience.com> e-mail: [Mrs9064@aol.com](mailto:Mrs9064@aol.com) HWK = Homework EC = Extra Credit

## CA State Standards : Reactions

**Chemical reactions are processes in which atoms are rearranged into different combinations of molecules.**

1. Students know: Reactant atoms and molecules interact to form products with different chemical properties.
2. Students know: The idea of atoms explains the conservation of matter: In chemical reactions the number of atoms stays the same no matter how they are arranged, so their total mass stays the same.
3. Students know: Chemical reactions usually liberate heat or absorb heat.
4. Students know: Physical processes include freezing and boiling, in which a material changes form with no chemical reaction.
5. Students know: Know how to determine whether a solution is acidic, basic, or neutral.

## Wk 13: Dec 1-5: Chp 15: Chemical Reactions

**Little Bk Chp 15: Entire Little Book due; Monday Dec 9th**

Mon:	Chp 15: Chem Reactions Lect 1	<b>Little Bk Chp 15: Entire Little Book due; Monday Dec 9th</b>
Tues/ Wed Blk1	Chp 15: Chem Rxn Lect 2	
Wed/Thu Blk2	Chp 15: Lab: Bond with Me	
Fri:	Acids Bases & Neutrals	<b>Little Bk Chp 15: Entire Little Book due; Monday Dec 9th</b>

## Wk 14: Dec 8-12: Chp 16: Acids, Bases & Salts

**Little Bk Chp 16/Cabbages in Chemistry: due Monday Dec 17th**

Mon:	Cabbages in Chemistry Day 1	<b>Chp 15 Little Bk: Entire Little Book due today Chp 16 Cabbages in Chem LB due next Monday (Dec 15<sup>th</sup>)</b>
Tues/ Wed Blk1	Cabbages in Chemistry Day2	Chp 14,15,16 Lab Lect NB Due on MONDAY!
Wed/Thu Blk2	Cabbages in Chem Work Day	Chp 12 & 13 final: Monday
Fri:	Alien Juice Bar Virtual Lab	Chp 14,15,16 final Tue: pd 2-4, Wed pf 5&6

## Wk 15: Dec 15-19: Final Unit Exam: 12,13,14,15,16

Mon	<b>Review Exam: Chp 12 &amp; 13</b>	Chp 14,15,16 Lab/ Lect Ntbk Due <b>Chp 16 Cabbages in Chem LB Due</b>
Tue/Wed Blk1	<b>Final Unit Exam: Chp 14,15,16</b>	
Blk2/Fri	<b>Movie: October Sky</b>	

**Science Fair Results Deadlines: (changes!)**

**12/3:** Wed: Results due (include all 4 parts: graphs, observations, data tables, photos) **by email**

**12/5:** Fri: Conclusions, Recommendations AND Abstract **due by email**

**12/17 Wed: FINAL NOTEBOOK DUE BEFORE SCHOOL: THIS INCLUDES:** the corrected/edited final research paper/ edited NB parts 1-2-3-4, plus Table of Contents, Acknowledgements, Appendix (composition book) **Must have:** messy original data

**1/21 Wed BACKBOARD DUE** Jan 21: Wed: Marshall Science Fair Open House All students must attend for 60 minutes  
January 22-23 Regional Science Fair (at Marshall)

### Atomic Structure

Jefferson Lab's "Element Math Game" - guess the number of protons, neutrons, & electrons in an atom  
<http://education.jlab.org/elementmath/index.html>  
Quia's "Atomic Structure Jeopardy" - play with 2 people or just you  
<http://www.quia.com/cb/36842.html> Quia's "Atomic Structure Hangman"  
<http://www.quia.com/hm/110454.html>

DragonFly TV's Nanobots: Practice opposite charges  
[http://pbskids.org/dragonflytv/games/game\\_nano.html](http://pbskids.org/dragonflytv/games/game_nano.html)  
click on : Concentration Game

[http://glencoe.mcgraw-hill.com/sites/0078778344/student\\_view0/chapter1/interactive\\_tutor.html#](http://glencoe.mcgraw-hill.com/sites/0078778344/student_view0/chapter1/interactive_tutor.html#)

DragonFly TV's Nanobots: Practice opposite charges - ionic bonds!!!  
[http://pbskids.org/dragonflytv/games/game\\_nano.html](http://pbskids.org/dragonflytv/games/game_nano.html)

### Periodic Table of Elements

School of Element Game: Sort the elements into their family!  
<http://mint.ua.edu/games/school-of-elements/>  
The Periodic Table of Comic Books" -Relax, sit back, & read through these entertaining stories involving the elements.  
<http://www.uky.edu/Projects/Chemcomics/>  
Name the Elements Quiz: List as many of the elements as you can  
<http://www.jetpunk.com/quizzes/name-the-elements.php>

### Bonding & Compounds

Glencoe Science: Chapter 5: Combining Atoms and Molecules Match valence electrons & Lewis dot structures.  
[http://glencoe.mcgraw-hill.com/sites/0078741858/student\\_view0/unit2/chapter5/interactive\\_tables.html](http://glencoe.mcgraw-hill.com/sites/0078741858/student_view0/unit2/chapter5/interactive_tables.html)

Glencoe Science - Virtual Lab: How can a molecular model be built?  
[http://www.glencoe.com/sites/common\\_assets/science/virtual\\_labs/grade6/E02/E02.html](http://www.glencoe.com/sites/common_assets/science/virtual_labs/grade6/E02/E02.html)

Glencoe Science Tutor: Combining Atoms & Molecules Matching  
[http://www.glencoe.com/olc\\_games/game\\_engine/content/gln\\_sci/fops\\_06\\_ca/grade08/chapter05/text\\_id/](http://www.glencoe.com/olc_games/game_engine/content/gln_sci/fops_06_ca/grade08/chapter05/text_id/)

### Chemical Reactions

Four Types of Chemical Reaction Animations: A tutorial of the 4 types of rxn

<http://www.wisc-online.com/objects/ViewObject.aspx?ID=AP13004>

Endothermic & Exothermic Videos

[http://www.classzone.com/books/ml\\_science\\_share/vis\\_sim/cim05\\_pg90\\_endotherm/cim05\\_pg90\\_endotherm.html](http://www.classzone.com/books/ml_science_share/vis_sim/cim05_pg90_endotherm/cim05_pg90_endotherm.html)

\* Glencoe Science - Interactive Tutor: Chapter 8 – Chem Reactions  
[http://www.glencoe.com/olc\\_games/game\\_engine/content/gln\\_sci/fops\\_06\\_ca/grade08/chapter08/text\\_id/](http://www.glencoe.com/olc_games/game_engine/content/gln_sci/fops_06_ca/grade08/chapter08/text_id/)

\* Glencoe Science - Vocabulary eFlashcards: Chemical Reactions  
<http://www.glencoe.com/qe/efcwin.php?qi=10243>