

8th Grade Syllabus 2016: Semester 1

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HWK = Homework EC = Extra Credit TH=Take Home Test

DATE	CLASS	HOMEWORK
Wk1: Aug 29-Sept 2: "Getting to Know You"		
Mon 8/29	WELCOME!!!! Website Intro, Parent/Stu info sheet *bring popcorn by Fri for Lab next week! pd3: Lunch video the last 15 min of period	HWK: Bring a picture of yourself for tomorrow HWK: email me tonight: mrsrg9064@aol.com In subject line: pd__ (just the number) Last name, 1st name Bring back Stu/par info sheet Thu, read syllabus, purchase 1inch 3 ring NB for Fri
Tue 8/30	Me, Myself & Science project/name tags Pd 6 Zero Tolerance Video 1:50-2:10	Hwk: Complete Me, Myself & Science Due Thursday Bring SCIENCE FOLDER & pencil WITH 20 sheets of PAPER to school on Fri! Girls, Bring in Lab t-shirts with your name in them by Fri!
Wed 8/31	Pd 2-6 Safety Lecture	We need microwaveable popcorn HWK: Safety LB (Little Book)
Thu 9/1	Pd 2,3,5,6 Sci Method & The Popcorn Lab Pd4: ASB Magazine Drive Assembly	Bring bag/box of microwaveable popcorn for lab next week! DUE TODAY: Parent forms Girls, Bring in Lab t-shirts with your name in them!
Fri 9/2	Pd1& 4 Scientific Method & The Popcorn Lab Pd3: Bus assembly (last 30 min) Pd 5: Fire Drill Work time: Pd 3,5,6	Bring bag/box of microwaveable popcorn for lab next week! Science Folders DUE TODAY! (you need some type of pocketed notebook or folder with only 20 pages of notebook paper AND a pencil. Please bring these supplies to EVERY class.)
Wk 2: Sept 5-9: Measuring Metric & The Scientific Method - THURSDAY Night: Sept 8th 6-7:30 pm is Open House for 8th grade		
8th Grade CA State Science Standards: Investigation and Experimentation		
<p>Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:</p> <ol style="list-style-type: none"> 1. Plan and conduct a scientific investigation to test a hypothesis. 2. Evaluate the accuracy and reproducibility of data. 3. Distinguish between variable and controlled parameters in a test. 4. Recognize the slope of the linear graph as the constant in the relationship $y=kx$ and apply this principle in interpreting graphs constructed from data. 5. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables. 6. Apply simple mathematic relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (including speed = distance/time, density = mass/volume, force = pressure × area, volume = area × height). 7. Distinguish between linear and nonlinear relationships on a graph of data. 		
Tues/Wed 9/6&7	Popcorn EATING Day! Counting & Graphing This lab booklet due on Friday	Hwk: work on Scientific Method/Popcorn Lab Little Bk. Due Mon We need watermelons!! Check out the 99 cent store!
Wed/Thu 9/ 7 & 8	Smile Lab This write-up is due on Monday Metric Measurement Lab:	Hwk: Work on the Popcorn lab /Smile Lab PARENT-ONLY OPEN HOUSE THURS 6-7:30
Fri 9/9	ABC's of Science Lecture- Start	Popcorn/Smile Lab & Metric Measurement Lab Little Book DUE ON MONDAY
Wk3: Sept 12-16: ABC's of Science- Final Exam Block Day2		
Mon 9/12	Finish: ABC'S of Science Lecture Start Watermelon Lab in class	Popcorn/Smile Lab & Metric Measurement Lab Little Book due today.
Wed/Thurs	Watermelon Lab & the Scientific Method	Homework: Finish watermelon write up in class and turn in
Wed/Thurs 9/ 14 & 15	Safety/Measurement/Sci Method Final exam Bring your Little Book to use as a cheat sheet!	NO HOMEWORK over the weekend!!
Fri: 9/16	Matter Assessment	

Remember all homework is due on the due date. Notebooks/projects earn up to 50% if under 3 days late and 0% after 3 days **If you are absent on the turn in date, it is due the FIRST day you return to school (bring to Mrs Gillum before school), whether you do or do not have class.** You are expected to make up exams the day you return, either before school or at lunch. After 2 return sick days these assignments/make up exams will become zeros.

Matter: Properties & States of / Elements, Compounds & Mixtures

CA State Standards : Structure of Matter:

Each of the more than 100 elements of matter has distinct properties and a distinct atomic structure.

All forms of matter are composed of one or more of the elements. As a basis for understanding this concept:

1. Students know the structure of the atom and know it is composed of protons, neutrons, and electrons.
2. Students know that compounds are formed by combining two or more different elements and that compounds have properties that are different from their constituent elements.
3. Students know atoms and molecules form solids by building up repeating patterns, such as the crystal structure of NaCl or long-chain polymers.
4. Students know the states of matter (solid, liquid, gas) depend on molecular motion.
5. Students know that in solids the atoms are closely locked in position and can only vibrate; in liquids the atoms and molecules are more loosely connected and can collide with and move past one another; and in gases the atoms and molecules are free to move independently, colliding frequently.
6. Students know how to use the periodic table to identify elements in simple compounds.

Chp 12: Chemistry: The Atom / Chp 13: The Periodic Table

CA State Standards : The Periodic Table

The organization of the periodic table is based on the properties of the elements and reflects the structure of atoms. As a basis for understanding this concept:

1. Students know how to identify regions corresponding to metals, nonmetals, and inert gases.
2. Students know each element has a specific number of protons in the nucleus (the atomic number) and each isotope of the element has a different but specific number of neutrons in the nucleus.
3. Students know substances can be classified by their properties, including their melting temperature, density, hardness, and thermal and electrical conductivity.

Chp14:Chem Bonding / Chp15: Chem Reactions/ Chp16:Acid,Bases, Neutrals

CA State Science Standards: Reactions

Chemical reactions are processes in which atoms are rearranged into different combinations of molecules. As a basis for understanding this concept:

- a. Students know reactant atoms and molecules interact to form products with different chemical properties.
- b. 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.
- c. Students know chemical reactions usually liberate heat or absorb heat.
- d. Students know physical processes include freezing and boiling, in which a material changes form with no chemical reaction.
- e. Students know how to determine whether a solution is acidic, basic, or neutral.

Organic Chemistry

CA State Science Standards: Chemistry of Living Systems (Life Sciences)

6. Principles of chemistry underlie the functioning of biological systems. As a basis for understanding this concept:

- a. Students know that carbon, because of its ability to combine in many ways with itself and other elements, has a central role in the chemistry of living organisms.
- b. Students know that living organisms are made of molecules consisting largely of carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur.
- c. Students know that living organisms have many different kinds of molecules, including small ones, such as water and salt, and very large ones, such as carbohydrates, fats, proteins, and DNA.

2nd Semester:

**Physics: Force & Motion, Flying Car Competition, Space Science, Rocketry,
CA State Exams, Transforming Energy & Solar Cars, Sex Ed**