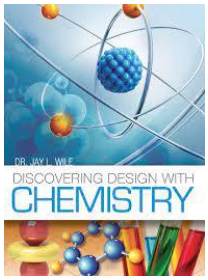
PIONEERS Co-Op

637 W. Ganson Street, Box B, Jackson, MI 49201
Voicemail: (517) 888-4328 Email: OfficeAdmin@pioneershess.org
Website://pioneershess.org

Overview of
CHEMISTRY
(Grades 10-12)



Tutors: Mrs. Anna French
903-387-6548
annafrnch@gmail.com

Required Text:

- ***Discovering Design with Chemistry*** by Dr. Jay Wile PhD. published by Berean Builders (ISBN: 978-0-9962784-6-1)
- ***Answer Key & Tests*** (ISBN: 978-0-9962784-7-8) **NOTE: Parents expected to grade homework**

Technology: Microsoft Teams (weekly videos will be posted to Teams)

Optional Resources: http://vimeo.com/ondemand/jlwddc/ J.Wile lectures rent by year ($99) or lesson ($4)

Prerequisite: Algebra I

Supplies: Scientific calculator like the TI-30xa

Lab Fee: $10.00 each semester

Student Evaluation:

	% of semester grade
Homework	20%
Quizzes/Tests	30%
Lab Work/Reports	30%
Quarterly Exams*	20%

*Second semester includes Spring Project worth 10%

Grading Scale	
90-100%	=A
80-89%	=B
70-79%	=C
60-69%	=D
Less than 60%	=F

Course Description:
Instruction and lab experiments will be alternated, roughly two weeks of instruction to every one week of lab. Experiments will be used to improve the students' lab skills and to increase the understanding of the concepts being studied. Class time will be maximized by parents and students doing and grading most assignments at home. While owning the specific $10 scientific calculator listed above is not required, that is the one that will be used in demonstration in class, so having the same buttons to "operate" as the tutor can be helpful to the student. Students can expect to spend at least an hour daily on assignments. Some of the concepts to be studied include:

- Measurement & Scientific Notation
- Mixtures, Elements, Compounds
- Atomic Theory & Structures
- Periodic Table
- Chemical Bond
- Physical/Chemical properties
- Chemical reactions/equations
- Oxidation & Reduction
- Acids, Bases & pH
- Solutions (Molarity/Molality)
- Moles & Stoichiometry
- Empirical & Molecular Formulas
- Gas Laws
- Heat Capacity
- Entropy & Enthalpy