CP Chemistry: This year long course studies matter: its composition, structure, properties, and the changes it undergoes. We will also investigate important and current topics in chemistry that affect our daily lives. This class encourages the development of analytical and problem-solving skills. Active and constructive participation, both individually and in groups, on a daily basis, is an integral component of the course.

CP Chemistry Syllabus 2020-2021

Course Description			
Unit of Study	**Grade Level Expectations/Content Standards**		**Approximate Time Spent or Percent of time Spent**
Unit 1 Atomic Structure and Periodic Table	Subatomic particles- properties and location and isotopes. Basic periodic table organization. Electron configurations and the relationship of valence electrons to the periodic table		5-6 Weeks
Unit 2 Chemical Bonding	Predict formation of Ionic and covalent bonding based on electron structure of atoms. Explain the importance of molecular structure to the properties of substances. Molecular shapes and intermolecular attractions. Use data to determine empirical formula of a compound.		8 weeks
Unit 3 Chemical Reactions	Interpreting a chemical reaction, balancing chemical reactions, types of reaction, predicting products. The mole concept, molar mass, converting between mole and gram to predict quantity of product formed or reactants used. Calculate the excess and limiting reactants.		10 weeks
Unit4 Thermodynamics and Kinetics	Investigating the factors that determine the rate and amount of energy change for chemical reactions. Calculate energy change from bond enthalpy values.		5 weeks
Unit 5 Nuclear Chemistry	Changes to the nuclei of atoms and the subsequent energy changes associated with those changes. Manipulate half-life data.		4 weeks

Their will 4 Grade Reporting Criteria (GRC's) used to determine the final grade

GRC #1 Disciplinary Core Ideas	This is the specific information students need to know and utilize to be successful in CP Chemistry
GRC #2 Science Practices	These are the processes that scientists use to gain new knowledge, including lab work and research
GRC #3 Communication	This is the process of interpreting the chemistry information given to you into personal understanding and the process of communicating your understanding of chemistry.
GRC #4 Practice	Homework and other means of preparation are essential for success in rigorous college level coursework

Grading:

Letter grades are based on demonstration of proficiency in the four GRC areas and the GRC's are weighted as follows.

Disciplinary Core Ideas	60%
Science Practices	15%
Communication	15%
Practice	10%

Students will be allowed to retake assessments provided they have demonstrated additional learning since the initial assessment was given and the retake is done within 2 weeks of the initial assessment.