HBHS Science Curriculum Trajectory

Course:

Chemistry and Society

Course Description:

> This course is designed for students going on to some form of higher education, not necessarily as science majors. The course is designed to meet the needs and interests of the students enrolled in a chemistry class and will investigate chemistry topics including, but not limited to atoms, matter, chemical reactions, solutions and acid/base chemistry. Students also will investigate chemistry topics that are currently in the news and impact our society. The class will focus around student-centered investigations, projects, expositions, and presentations.

Units of study:

Scientific Skills: Measurement and Numeracy; Matter and the Environment; AtomicTheory; Astronomy & the Periodic Table; Molecular Structure and Chemical Bonding; Solution - Acids & Bases;States of Matter and Gas Laws; Thermodynamics; Biotechnology & Forensics

Course Standards: Students will be able to:

- Demonstrate the 4'C standards (creativity, communication, critical thinking, and collaboration)
- Use the scientific method, engineering practices and inquiry based learning and describe those findings in a lab report
- Classify matter
- Describe the structure of an atom
- Describe the trends and organization of the periodic table
- Compare chemical bonding
- Name compounds
- Describe chemical reactions and their rates
- Distinguish between acids and bases
- Describe the states of matter the ther role of pressure and temperature
- Understand the role of enthalpy, entropy and energy