

Chemistry Course Descriptions (COES)

CHEMISTRY: Chemistry of Earth Systems

This course covers the skills and content of a first-year Chemistry course within the context of Earth Systems. Topics include: Big Bang and the origin of elements, atomic structure, chemical reactions and their role in Earth processes, bonding, chemistry topics applied to environmental issues, stoichiometry, thermodynamics and equilibrium.

CHEMISTRY HONORS: Chemistry of Earth Systems

This course covers similar topics as Chemistry: Chemistry of Earth Systems, but at a deeper level and an accelerated pace. This course requires strong math critical thinking skills.

Chemistry Course Units (COES and Honors COES)

[Course
Sheet for
Chemistry](#)

[Course
Sheet for
Chemistry
Honors](#)

Big Bang and Nuclear Chemistry
Atomic Structure
The Periodic Table
Chemical Bonding
Chemical Quantities
Chemical Reactions
Stoichiometry
Copper Unlimited Project

Thermochemistry
Gases
Weather and Climate
Climate Change
Reaction Rates and Equilibrium
Acid-Base Equilibria
Ocean Acidification
Organic Chemistry

Honors course has additional learning objectives within units that increase the rigor of the course. In addition, Honors level students will be asked to delve deeper into objectives, to use critical thinking skills that incorporate multiple learning objectives across multiple units, and to apply those skills to novel situations.