

Elementary Chemistry

Students become chemists in this exploration of states of matter, substances, and their chemical identities. Students will experiment with a range of different chemical reactions to produce a variety of results. Students begin with the beginning chemistry concepts of acids and bases then move to awe-inducing exothermic reactions. Students will gain an appreciation and understanding of how chemistry and change make up the world around us with concepts such as surface tension, polymers, sublimation, and non-Newtonian fluids. Each class session will have a brief discussion followed by classroom demonstrations, hands-on activities, and labs.

Week 1 – Acids and Bases

- Students are introduced to acids and bases

Week 2 – States of Matter

- Students explore changes in states of matter - solid, liquid, gas
- Students are also introduced to sublimation

Week 3 – Properties of Soap

- Students learn about the chemical reactions and atomic properties of soap
- Students experiment with surface tension

Week 4 – Polymers

- Students are introduced to polymers
- Students learn about Non-Newtonian Fluids

Week 5 – Endothermic and Exothermic Reactions

- Students learn and experiment with endothermic and exothermic reactions

Week 6 – Gas-Releasing Chemical Reactions

- Students experiment with a variety of substances and learn about the chemical reactions that cause the combination to release gas

Week 7 – Chemical Reactions with Metals

- Students learn and experiment with chemical reactions and observe the effect on metals