



MIDDLE SCHOOL CHEMISTRY

Mondays, September 20-December 13 (no class October 11 and Nov 22; 11 weeks)

12:30pm-2:00pm

Ages 11-14

We cover basic chemistry principles through model building, using the periodic table of elements, and conducting lab experiments. We look at properties of liquids and solids, investigate acid-base reactions, experiment with polymers, and more. Lab supplies are included in registration.

Instructor: Nanette Lenderman, MEd

Location: Discover Science Center - Peachtree City

Course fee: \$250 OR \$25/lab

10% sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

THE METRIC SYSTEM – Monday, September 20

We review the metric system and conversions of units as we practice the proper use of scientific measurement tools.

MOLECULAR ARRANGEMENTS - Monday, September 27

Students investigate molecular arrangements and conservation of matter, and learn how these molecular arrangements affect density.

DENSITY - Monday, October 4

This week we use the scientific method to explore the densities of various liquids and solids, and learn to calculate density to test our hypotheses.

DATA ANALYSIS - Monday, October 18

Scientists must analyze their data to make conclusions about their results. This week, students learn to create proper tables and graphs to present scientific data.

ATOMIC STRUCTURE - Monday, October 25

Students study the atomic structure of elements, how electrons are arranged around the nucleus of atoms, and why valence electrons are important.

THE PERIODIC TABLE – Monday, November 1

This week, we learn to read the periodic table, how it is arranged and characteristics of groups of elements.

IONIC AND COVALENT BONDS – Monday, November 8

Students learn how some elements form bonds to create compounds, and we play Valence to practice creating proper molecules.

PROPERTIES OF WATER – Monday, November 15

We study the special properties of water that allow molecules to stick together, conduct experiments to observe these properties, and learn about capillary action.

CHEMICAL REACTIONS – Monday, November 29

We conduct endothermic and exothermic reactions in lab to investigate how energy is used or transformed during some chemical reactions.

REACTION RATES – Monday, December 6

This week, students conduct two chemistry experiments to demonstrate how different variables affect the rate a reaction occurs.

CHEMICAL EQUATIONS – Monday, December 13

We create models of chemical equations to learn how matter is conserved during chemical reactions, and practice balancing simple chemical equations.

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