



Acellus Learning System

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Physical Science Curriculum

• Unit 1 – Properties of Matter

This unit introduces matter and discusses mass, volume, volume by displacement, and the states of matter including solid, liquid, gas, and plasma. Other properties covered in this unit are melting, vaporization, freezing, condensation, sublimation, weight, density, and viscosity. The kinetic theory model and the properties of metals are also discussed, as well as acids and bases.

• Unit 2 – Types of Matter

This unit discusses elements, atoms, the nucleus, electrons, atomic numbers, atomic mass, molecules, and compounds.

• Unit 3 – Changes in Matter

This unit discusses physical and chemical changes in matter, including mixtures and solutions, the signs of a chemical change, the law of conservation of mass, and pure versus non-pure substances.

• Unit 4 – Forms of Energy

This unit discusses what energy is, different forms of energy, energy transformations, and the law of conservation of energy.

• Unit 5 – Heat

This unit covers what heat is, as well as conduction, convection, radiation, conductors, insulators, and thermal expansion.

• Unit 6 – Magnetism

This unit discusses what magnetism is, what causes it, and how it affects our lives.

• Unit 7 – Electricity

This unit discusses electricity, the parts of a circuit, series circuits and parallel circuits, as well as high and low resistance.

• Unit 8 – Waves

This unit discusses what waves are, their characteristics, and how they travel, as well as transverse and longitudinal waves.

• Unit 9 – Sound

This unit discusses pitch, loudness, and how sound waves travel.

• Unit 10 – Electromagnetic Energy

This unit covers electromagnetic energy, including high and low electromagnetic energy.

• Unit 11 – Light

This unit discusses color, sources and receiver of light, the law of reflection, transmission and refraction of light, and concave and convex lenses.

• Unit 12 – Forces

This unit discusses force, balanced and unbalanced forces, friction, gravity, buoyancy, centripetal, and inertia. Also discussed are Newton's Law of Universal Gravitation, and orbit, which is a perfect balance.

• Unit 13 – Motion

This unit discusses motion, how it is measured, and Newton's first, second, and third laws of motion.

• Unit 14 – Work and Machines

This unit discusses work, machines, mechanical advantage, efficiency, and how to make work easier.

• Unit 15 – Alternative Energy Sources

This unit discusses resources, as well as fossil fuel, solar, hydro, wind, biomass, geothermal, and hydrogen energy.

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Deployment Areas

Supplemental Instruction
Special Education
Response to Intervention
SAT/ACT Exam Preparation
End-of-Course Exam Prep

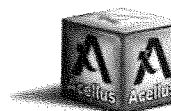
Credit Recovery
English Language Learners
Advanced Placement
Summer School
GED and Adult Education

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