

Physical Science offers a focused curriculum designed around the understanding of critical physical science concepts, including the nature and structure of matter, the characteristics of energy, and the mastery of critical scientific skills.

Course topics include an introduction to kinematics, including gravity and two-dimensional motion; force; momentum; waves; electricity; atoms; the periodic table of elements; molecular bonding; chemical reactivity; gases; and an introduction to nuclear energy. Teacher-scored labs encourage students to apply the scientific method.

This course is built to state standards.

Length: Two Semesters

UNIT 1: LET'S GET PHYSICAL!

- Lesson 1: Science as Inquiry
- Lesson 2: The Scientific Method
- Lesson 3: Let's Get Physical! Wrap-Up

UNIT 2: GET YOUR MOTOR RUNNING

- Lesson 1: Introduction to Kinematics
- Lesson 2: Gravity and Free Fall
- Lesson 3: Motion in Two Dimensions
- Lesson 4: Get Your Motor Running Wrap-Up

UNIT 3: MAY THE NET FORCE BE WITH YOU

- Lesson 1: Newton's Laws of Motion
- Lesson 2: Friction
- Lesson 3: Centripetal Force
- Lesson 4: Buoyant Force
- Lesson 5: May the Net Force Be with You Wrap-Up

UNIT 4: CRASH INTO ME

- Lesson 1: Momentum
- Lesson 2: Work Simple Machines and Power
- Lesson 3: Energy
- Lesson 4: Crash into Me Wrap-Up

UNIT 5: I'M PICKIN' UP GOOD VIBRATIONS

- Lesson 1: Properties of Waves
- Lesson 2: Sound Waves
- Lesson 3: Electromagnetic Waves
- Lesson 4: Optics
- Lesson 5: I'm Pickin' Up Good Vibrations Wrap-Up

UNIT 6: IT'S ELECTRIC!

- Lesson 1: Static Electricity
- Lesson 2: Current and Circuits
- Lesson 3: Magnetism
- Lesson 4: It's Electric! Wrap-Up

UNIT 7: SEMESTER 1 REVIEW AND EXAM

- Lesson 1: Semester 1 Review and Exam

UNIT 8: IT'S ELEMENTARY

- Lesson 1: Structure and Components of the Atom
- Lesson 2: The Periodic Table
- Lesson 3: Trends and Patterns
- Lesson 4: It's Elementary Wrap-Up

UNIT 9: BOND. MOLECULAR BOND.

- Lesson 1: Bonding
- Lesson 2: Shapes of Molecules
- Lesson 3: Compounds
- Lesson 4: Bond. Molecular Bond. Wrap-Up

UNIT 10: CHEMICAL REACTIONS

- Lesson 1: Chemical Equations and Conservation Laws
- Lesson 2: Reaction Types
- Lesson 3: Acids and Bases
- Lesson 4: Chemical Reactions Wrap-Up

UNIT 11: JUMPIN' JACK FLASH — IT'S A GAS

- Lesson 1: Heat
- Lesson 2: The Gas Laws
- Lesson 3: Thermodynamics
- Lesson 4: Jumpin' Jack Flash — It's a Gas Wrap-Up

UNIT 12: NUCLEAR ENERGY IS DA BOMB

- Lesson 1: Radioactivity
- Lesson 2: Nuclear Reactions
- Lesson 3: Energy of the Future
- Lesson 4: Nuclear Energy Is Da Bomb Wrap-Up

UNIT 13: SEMESTER 2 REVIEW AND EXAM

- Lesson 1: Semester 2 Review and Exam