California Science Techbook

Integrated 3 Course Series:
The Living Earth
Chemistry in The Earth System
Physics of the Universe
This comprehensive science curriculum will change the way your students experience science with a powerful blend of dynamic digital, interactive print and immersive experiences.
Inspire students to investigate the marvels of science

Change the way students experience science with a comprehensive curriculum designed for California that brings 3D learning to life.

Activate their inner explorer with immersive hands-on activities and rich interactive resources that will get them thinking and acting like scientists.

Strengthen science and engineering practices as they develop solutions to relevant, real world challenges.
Unlock the Power of Discovery

Discovery Education brings a variety of highly engaging educational content from partners like MythBusters, NBA, Lockheed Martin, Shark Week, MLB and Street Science into our K-12 services. This ever-growing collection mirrors the unique interests of students, allowing them to make relevant connections, explore industry, and participate in real time collaboration.

No permission slips required

Take your students beyond the classroom walls and into some of the world's most iconic locations with our vast collection of Virtual Field Trips.

STREETSCIENCE

Street Science host Kevin Delaney leaves his lab behind and hits the streets to conduct “larger-than-life experiments” that combine scientific method with curiosity.
It’s more than what you learn, it’s how you learn it.

Meet the needs of every learner and change the way they experience science with a powerful blend of dynamic digital, interactive print and immersive experiences.

Built for California, this curriculum is designed to work in unison, so students can move seamlessly between resources to explore content and experience 3D learning.

High School
Integrated 3 Course Series
The Living Earth
Chemistry in The Earth System
Physics of the Universe
Available in Spanish and English
Integrated 3 Course Framework

California Chemistry in the Earth System

UNIT 1
Heat and Energy in the Earth System
1.1 Heat
1.2 Thermochemistry
1.3 The Cycling of Matter and Energy
1.4 Earth’s Interior
1.5 Tectonic Plate Interactions
1.6 Volcanoes

UNIT 2
Atoms and Elements
2.1 Parts of the Atom
2.2 Arrangement of Electrons in the Atom
2.3 Electron Representations
2.4 Structure of the Periodic Table
2.5 Periodic Trends

UNIT 3
Molecules and Bonding
3.1 Ion Formation
3.2 Ionic Bonding
3.3 Covalent Bonding
3.4 Lewis Structures and Molecular Geometry
3.5 Chemical Formulas

UNIT 4
Chemical Reactions
4.1 Chemical Reactions and Equations
4.2 Mathematics of Formulas and Equations
4.3 Oxidation-Reduction Reactions
4.4 Electrochemistry

UNIT 5
Chemistry and the Biosphere
5.1 The Composition and Behavior of the Atmosphere
5.2 Solutions
5.3 Acids, Bases, and Salts
5.4 Chemical Equilibrium
5.5 Reaction Rate
5.6 Ocean Water

California Physics of the Universe

UNIT 1
Forces and Motion
1.1 Understanding and Describing Motion
1.2 Newton’s Laws
1.3 Using Vectors and Scalars to Describe Motion
1.4 Solving Motion Problems
1.5 Conservation of Momentum

UNIT 2
Forces at a Distance
2.1 Fundamental Forces
2.2 Nuclear Forces
2.3 Electric Forces
2.4 Gravity
2.5 Movements in Space

UNIT 3
Energy Conversion and Renewable Energy
3.1 Types of Energy
3.2 Conservation of Energy
3.3 Laws of Thermodynamics
3.4 Electricity and Magnetism
3.5 Conductors and Insulators

UNIT 4
Nuclear Processes
4.1 Nuclear Physics
4.2 Radiometric Dating

UNIT 5
Waves and Electromagnetic Radiation
5.1 Wave Characteristics
5.2 Reflection and Refraction
5.3 Seismic Waves
5.4 Earthquakes and Their Impacts

UNIT 6
Stars and the Origins of the Universe
6.1 Understanding the Universe
6.2 Stars and Galaxies

California The Living Earth

UNIT 1
Ecosystem Interactions
1.1 Earth’s Spheres
1.2 Ecosystems
1.3 Describing Populations
1.4 Biomes

UNIT 2
Energy, Matter, and Life
2.1 Energy for Life
2.2 Photosynthesis
2.3 Cellular Respiration
2.4 Nutrient Cycles
2.5 Mechanical and Chemical Weathering
2.6 Erosion and Deposition

UNIT 3
Evolving Earth
3.1 The History of Life on Earth
3.2 The Development of Earth
3.3 Evidence for Plate Tectonics
3.4 Relative Dating
3.5 Evidence for Evolution
3.6 Mechanisms for Evolution

UNIT 4
Inheritance and Variation
4.1 Genetics
4.2 DNA
4.3 Transcription and Translation
4.4 Genetic Disorders and Technology

UNIT 5
Cells to Organisms
5.1 The Chemistry of Life
5.2 Cell Structure and Function
5.3 Cell Transport
5.4 Cell Division
5.5 Asexual and Sexual Reproduction
5.6 Biological Organization and Control

UNIT 6
Human Activities and the Biosphere
6.1 Natural Resources
6.2 Relationships between Human Activity and Earth’s Systems
6.3 Understanding Climate and Climate Change
6.4 Impacts on Biodiversity
Supporting educators every step of the way... all at their convenience and comfort level.

Professional Learning Center
The PLC offers a variety of rich resources to ensure you are getting the most from your Discovery Education services available on-demand 24/7.
- Step-by-step guides
- Interactive courses
- Easy-to-use strategies

DEN Community
The DEN Community offers one of the most thriving professional learning networks in the world.
- Shared ideas and resources on-demand
- Professional learning experiences
- A network of educators, ready to collaborate

Point-of-Use Instructional Support
Access resources and support right when you need it.
- Model lessons and planning resources
- Embedded teacher notes
- Remediation and acceleration strategies
- Hands-on activities

California Science
DiscoveryEducation.com/CAscience
Explore The World In 3 Dimensions

Each unit in Science Techbook aligns to instructional segments and storylines in the California NGSS framework.

- Units are launched with anchor phenomena to inspire students to ask questions and make connections.
- Concepts are launched with investigative phenomena to allow students to dig deeper and apply what they know.
- Students are better prepared for success with performance-based assessments that directly mirror the CAST.
- Embedded digital and printed teacher editions support CA NGSS integration.

5E Instructional Model
Access and Equity for all Students

California Science Techbook has been built to support the unique needs of every learner so they can actively experience the magic of science.

• Engage all learners with interactive resources and multimedia, Spanish/English options, adjustable reading levels and read aloud tools.

• Offer support for emerging, expanding and bridging with point-of-use speak-to-text tools constructed around the ELD standards.

• Accelerate or remediate instruction with embedded differentiation tools and a real-time data dashboard.

Differentiation At Your Fingertips

Included with your premium package, you have access to a vetted bank of over 180,000 curated cross-curricular resources with Streaming Plus.
Certified by the Global STEM Alliance, this resource collection builds context and drives understanding of science concepts, providing students with opportunities to produce creative solutions to real-world problems and make relevant career connections.

Real World STEM In Action

Certified

Define the Problem

Optimize Design

Develop Solutions

Define the Problem

Real World Challenges

Hands-On Activities

Career Connections

Local Connections

DiscoveryEducation.com/CAscience
Log into DiscoveryEducation.com

Teacher View
Username: CASciTeacher
Password: discovery

Student View
Username: CASciStudent
Password: discovery

It’s an amazing world. Explore it.

Begin your journey. Simply log into Discovery Education to review the content and functionality of California Science Techbook.