

Scope and Sequence

***Interactive Science* grades 6-8**

Science and Technology

Chapter 1. What Is Science?

1. Science and the Natural World
2. Thinking Like a Scientist
3. Scientific Inquiry

Chapter 2. Science, Society, and You

1. Why Study Science?
2. Scientific Literacy
3. Scientists and Society
4. Careers in Science

Chapter 3. The Tools of Science

1. Measurement—A Common Language
2. Mathematics and Science
3. Graphs in Science
4. Models as Tools in Science
5. Safety in the Science Laboratory

Chapter 4. Technology and Engineering

1. Understanding Technology
2. Technological Design
3. Technology and Society
4. Engineering

Earth's Structure

Chapter 1. Introducing Earth

1. The Earth System
2. Earth's Interior
3. Convection and the Mantle

Chapter 2. Minerals and Rocks

1. Properties of Minerals
2. Classifying Rocks
3. Igneous Rocks
4. Sedimentary Rocks
5. Metamorphic Rocks
6. The Rock Cycle

Chapter 3. Plate Tectonics

1. Drifting Continents
2. Sea-Floor Spreading
3. The Theory of Plate Tectonics

Chapter 4. Earthquakes

1. Forces in Earth's Crust
2. Earthquakes and Seismic Waves
3. Monitoring Earthquakes

Chapter 5. Volcanoes

1. Volcanoes and Plate Tectonics
2. Volcanic Eruptions
3. Volcanic Landforms

Earth's Surface

Chapter 1. Mapping Earth's Surface

1. Exploring Earth's Surface
2. Models of Earth
3. Mapping Technology
4. Topographic Maps

Chapter 2. Weathering and Soil

1. Rocks and Weathering
2. How Soil Forms
3. Soil Conservation

Chapter 3. Erosion and Deposition

1. Mass Movement
2. Water Erosion
3. Glacial Erosion
4. Wave Erosion
5. Wind Erosion

Chapter 4. A Trip Through Geologic Time

1. Fossils
2. The Relative Age of Rocks
3. Radioactive Dating
4. The Geologic Time Scale
5. Early Earth
6. Eras of Earth's History

Water and the Atmosphere

Chapter 1. Fresh Water

1. Water on Earth
2. Surface Water
3. Water Underground
4. Wetland Environments

Chapter 2. The Oceans

1. Exploring the Ocean
2. Wave Action
3. Currents and Climate
4. Ocean Habitats

Chapter 3. The Atmosphere

1. The Air Around You
2. Air Pressure
3. Layers of the Atmosphere
4. Energy in Earth's Atmosphere
5. Heat Transfer
6. Winds

Chapter 4. Weather

1. Water in the Atmosphere
2. Clouds
3. Precipitation
4. Air Masses Core
5. Storms
6. Predicting the Weather

Chapter 5. Climate and Climate Change

1. What Causes Climate?
2. Climate Regions
3. Changes in Climate
4. Human Activities and Climate Change

Astronomy and Space Science

Chapter 1. Earth, Moon, and Sun

1. The Sky from Earth

2. Earth in Space
3. Gravity and Motion
4. Phases and Eclipses
5. Tides
6. Earth's Moon

Chapter 2. Exploring Space

1. The Science of Rockets
2. The History of Space Exploration
3. Using Space Science on Earth

Chapter 3. The Solar System

1. Models of the Solar System
2. Introducing the Solar System
3. The Sun
4. The Inner Planets
5. The Outer Planets
6. Small Solar System Objects

Chapter 4. Stars, Galaxies, and the Universe

1. Telescopes
2. The Scale of the Universe
3. Characteristics of Stars
4. Lives of Stars
5. Star Systems and Galaxies
6. The Expanding Universe

Ecology and the Environment

Chapter 1. Populations and Communities

1. Living Things and the Environment
2. Populations
3. Interactions Among Living Things
4. Changes in Communities

Chapter 2. Ecosystems and Biomes

1. Energy Flow in Ecosystems
2. Cycles of Matter
3. Biomes
4. Aquatic Ecosystems
5. Biogeography

Chapter 3. Resources and Living Things

1. Introduction to Environmental Issues
2. Introduction to Natural Resources
3. Human Population Growth
4. Forests and Fisheries
5. Biodiversity

Chapter 4. Land, Air, and Water Resources

1. Conserving Land and Soil
2. Waste Disposal and Recycling
3. Air Pollution and Solutions
4. Water Pollution and Solutions
5. Ocean Resources

Chapter 5. Energy Resources

1. Fossil Fuels
2. Renewable Sources of Energy
3. Energy Use and Conservation

Cells and Heredity

Chapter 1. Introduction to Cells

1. Discovering Cells
2. Looking Inside Cells
3. Chemical Compounds in Cells
4. The Cell in Its Environment

Chapter 2. Cell Processes and Energy

1. Photosynthesis
2. Cellular Respiration
3. Cell Division

Chapter 3. Genetics: The Science of Heredity

1. What Is Heredity?
2. Probability and Heredity
3. Patterns of Inheritance
4. Chromosomes and Inheritance

Chapter 4. DNA: The Code of Life

1. The Genetic Code
2. How Cells Make Proteins

3. Mutations

Chapter 5. Human Genetics and Genetic Technology

1. Human Inheritance
2. Human Genetic Disorders
3. Advances in Genetics
4. Using Genetic Information

Chapter 6. Change Over Time

1. Darwin's Theory
2. Evidence of Evolution
3. Rate of Change

The Diversity of Life

Chapter 1. Introduction to Living Things

1. What Is Life?
2. Classifying Life
3. Domains and Kingdoms
4. Evolution and Classification

Chapter 2. Viruses, Bacteria, Protists, and Fungi

1. Viruses .
2. Bacteria
3. Protists
4. Fungi

Chapter 3. Plants

1. What Is a Plant?
2. Classifying Plants
3. Plant Structures
4. Plant Reproduction
5. Plant Responses and Growth
6. Plants in Everyday Life

Chapter 4. Introduction to Animals

1. What Is an Animal?
2. Animal Body Plans
3. Introduction to Invertebrates
4. Introduction to Vertebrates
5. Vertebrate Diversity

Chapter 5. Getting Around

1. Skeletons and Muscles
2. Nervous System
3. Animal Movement

Chapter 6. Obtaining Energy

1. How Animals Obtain and Digest Food
2. How Animals Obtain Oxygen
3. Circulation and Excretion

Chapter 7. Animal Reproduction and Behavior

1. Animal Reproduction and Fertilization
2. Development and Growth
3. What Is Behavior?
4. Patterns of Behavior

Human Body Systems

Chapter 1. The Human Body

1. Body Organization
2. System Interactions
3. Homeostasis

Chapter 2. Bones Muscles, and Skin

1. The Skeletal System
2. The Muscular System
3. The Skin

Chapter 3. Digestion

1. Food and Energy
2. Healthy Eating
3. The Digestive Process Begins
4. Final Digestion and Absorption

Chapter 4. Circulation

1. The Body's Transport System
2. A Closer Look at Blood Vessels
3. Composition of Blood
4. Cardiovascular Health

Chapter 5. Respiration and Excretion

1. The Respiratory System

2. Smoking and Your Health
3. The Excretory System

Chapter 6. Fighting Disease

1. Infectious Disease
2. The Body's Defenses
3. HIV and AIDS
4. Infectious Disease and Your Health
5. Noninfectious Disease

Chapter 7 The Nervous System

1. How the Nervous System Works
2. Divisions of the Nervous System .
3. Sight and Hearing
4. Smell, Taste, and Touch
5. Alcohol and Other Drugs

Chapter 8. The Endocrine System and Reproduction

1. The Endocrine System
2. The Male and Female Reproductive Systems
3. Pregnancy and Birth
4. The Human Life Cycle

Introduction to Chemistry

Chapter 1. Introduction to Matter

1. Describing Matter
2. Classifying Matter
3. Measuring Matter
4. Changes in Matter

Chapter 2. Solids, Liquids, and Gases

1. States of Matter
2. Changes of State
3. Gas Behavior

Chapter 3. Elements and the Periodic Table

1. Introduction to Atoms
2. Organizing the Elements
3. Metals
4. Nonmetals and Metalloids
5. Radioactive Elements

Chapter 4. Atoms and Bonding

1. Atoms, Bonding, and the Periodic Table
2. Ionic Bonds
3. Covalent Bonds
4. Bonding in Metals

Chapter 5. Chemical Reactions

1. Observing Chemical Change
2. Describing Chemical Reactions
3. Controlling Chemical Reactions

Chapter 6. Acids, Bases, and Solutions

1. Understanding Solutions
2. Concentration and Solubility
3. Describing Acids and Bases
4. Acids and Bases in Solution

Forces and Energy

Chapter 1. Motion

1. Describing Motion
2. Speed and Velocity
3. Acceleration

Chapter 2. Forces

1. The Nature of Force
2. Friction and Gravity
3. Newton's Laws of Motion
4. Momentum
5. Free Fall and Circular Motion

Chapter 3. Work and Machines

1. Work and Power
2. Understanding Machines
3. Inclined Planes and Levers
4. Putting Machines Together

Chapter 4. Energy

1. What Is Energy?
2. Forms of Energy
3. Energy Transformations and Conservation

Chapter 5. Thermal Energy and Heat

1. Temperature, Thermal Energy, and Heat
2. The Transfer of Heat
3. Thermal Properties

Chapter 6. Electricity

1. Electric Charge and Static Electricity
2. Electric Current
3. Electric Circuits
4. Electric Power and Safety

Chapter 7. Magnetism and Electromagnetism

1. What Is Magnetism?
2. Magnetic Fields
3. Electromagnetic Force
4. Electricity, Magnetism, and Motion
5. Electricity from Magnetism

Sound and Light

Chapter 1. Characteristics of Waves

1. What Are Waves?
2. Properties of Waves
3. Interactions of Waves

Chapter 2. Sound

1. The Nature of Sound
2. Properties of Sound
3. Music
4. Hearing Sound
5. Using Sound

Chapter 3. Electromagnetic Waves

1. The Nature of Electromagnetic Waves
2. Waves of the Electromagnetic Spectrum
3. Wireless Communication

Chapter 4. Light

1. Light and Color
2. Reflection and Mirrors
3. Refraction and Lenses
4. Seeing Light
5. Using Light