Grade 4 Science

Course Duration: Full Year

Category: Elementary, Science

Assessment: Lesson Practice, Unit Exams, Mid-Term Exam, Final Exam

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Course Overview

Acellus Grade 4 Science is a stimulating course discussing topics of life, earth, and physical science as well as space and technology. The course includes labs to help students experience the theory they are learning "in action".

Scope and Sequence

Unit 1 – Classifications of Plants and Animals

This unit covers the building blocks of life – cells – how living things are grouped, how plants and animals are classified, and how animals adapt to survive.

Unit 2 – Energy from Plants

This unit covers plants, including their characteristics, parts, reproduction, and life cycle. Also included is a biography of Charles Darwin.

Unit 3 – Ecosystems

This unit discusses ecosystems, including their parts, energy flow, and matter flow.

Unit 4 – Changes in Ecosystems

This unit discusses what a balanced ecosystem is, as well as things that disturb the balance, such as competition, organisms' interaction, environmental changes, and people. Also covered are how to conserve the balance in an ecosystem, and a spotlight on careers in biology.

Unit 5 – Human Body Systems

This unit covers major human body systems, including skeletal, muscular, respiratory, circulatory, digestive, and nervous systems. It also discusses viruses and diseases and the body's defense systems, and presents a career spotlight on optometry.

Unit 6 – Water Cycles and Weather

This unit discusses the water found on Earth, including clouds, the atmosphere, air pressure, the water cycle, and measuring and predicting the weather.

Unit 7 – Hurricanes and Tornadoes

This unit discusses hurricanes and tornadoes, including predicting hurricanes and forecasting tornadoes. Also presented is a career spotlight on Meteorology.

Unit 8 – Minerals and Rocks

This unit discusses minerals, focusing on how sedimentary, metamorphic, and igneous rocks are formed, and with a biography of Alfred Wegner.

Unit 9 – Surface Changes on Earth

This unit discusses how Earth's surface is being worn away and what happens to weathered material. Also covered are volcanoes and earthquakes.

Unit 10 – Uses of Natural Resources

This unit describes natural resources with special emphasis on soil. It also discusses resources used for energy, and spotlights careers in Geology.

Unit 11 – Properties of Matter

This unit discusses matter and its properties, including how to measure matter, as well as an overview of different ways matter can change, and focus on physical, chemical, and phase changes.

Unit 12 – Heat

This unit discusses matter that contains energy, how heat moves, convection, and radiation, and spotlights careers in Chemistry.

Unit 13 – Magnetism and Electricity

This unit covers atoms, magnetic fields, how matter can be charged, how electric charges flow, and how electricity can be transformed into magnetism.

Unit 14 – Light and Sound

This unit discusses energy as sound and as light, how sound is produced, and how matter and light interact. Also presented is a biography of Thomas Edison.

Unit 15 – Objects in Motion

This unit covers motion, including how force affects moving objects and how force, mass, and energy relate to each other. It also discusses what machines are and how they work together.

Unit 16 – Inner and Outer Planets

This unit discusses how the universe came to be, what is within our solar system, the concepts of revolution and rotation, and each of the eight planets. Also covered are rockets, constellations, eclipses, moon phases, asteroid belts, comets, the moon, stars, and sun. The life of Nicolas Copernicus is also presented.

Unit 17 – Technology's Effects

This unit discusses how technology affects our lives and has changed transportation and communication.