

EARTH SCIENCE



Introduction to Earth Science

Earth science and exercising biblical dominion, worldviews and science, the structure of science, scientific models, what earth science is; maps and cartography, geographic information systems (GIS); introduction to physical science, matter, forces, energy, and measuring.

The Restless Earth

Earth as a special place designed for life, a brief history of geology, operational and historical geology, the earth's interior structure, natural resources; old- and young-earth origin theories of the earth, evidences for catastrophic changes in earth's history, models for geologic tectonics; tectonic forces, faults and earthquakes, earthquakes and seismology, effects of earthquakes; mountains and hills, tectonic mountains and landforms, nontectonic mountains and landforms; volcanic emissions, volcano activity and classification, intrusive volcanism.

Earth's Rocky Materials

Describing minerals, identifying and classifying minerals, minerals as resources; classifying rocks, igneous rocks, sedimentary rocks, metamorphic rocks, critiquing the uniformitarian rock cycle; the process of fossilization, paleontology, fossil fuels; weathering, erosion and deposition, soils and soil formation

The Water World

Ocean basins and landforms, seawater composition, ocean environments; tides, currents, waves; history of oceanography, methods and instruments, deep-sea exploration, underwater habitats, research vehicles; stream characteristics, lakes and ponds, limnology; groundwater reservoirs, groundwater chemistry, water as a resource, solution caves and karst topography.

The Atmosphere

Composition and thermal structure of the atmosphere, special regions; energy in the atmosphere; measurable weather data, causes of wind, global wind patterns, sources of local winds, cloud formation, classifying clouds, precipitation, dew and frost; air masses and weather fronts, causes of precipitation, winter storms, thunderstorms, tornadoes, hurricanes, weather forecasting, weather maps, applications of GIS in weather modeling; describing climate and climate zones, climate data and interpretation, observed short-term climate changes from volcanism and oceanic cycles, climate models, worldviews and long-term climate change, environmentalism and biblical stewardship of the environment.

The Heavens

The sun-earth-moon system—the sun's structure, composition and energy, the solar spectrum; the moon's structure and surface, origin theories; Earth's orbit, seasons, timekeeping, lunar phases,

eclipses, tidal effects; models of the solar system, Kepler's laws, classification and brief description of the planets, dwarf planets, small solar system bodies, evidences for a young solar system, constellations and star properties, stellar classification and the H-R diagram, stellar aging, classification of galaxies, nonstellar objects, cosmology and worldviews; challenges of space exploration, rocketry, principles of satellite and space probes, challenges and need for manned space exploration

AMERICAN REPUBLIC



Topic

American history

Geography

Geographic development of the United States through land acquisition; profiles of major geographic regions.

History

Chronological survey of important events in American history.

Government

Republican form of government under the Constitution.

Economics

Development and effects of inventions and industries; successes and problems of the free market.

Religion

Influence of Christianity on American history; influences of religious diversity.

Culture

Interaction of people, ideas, and cultures in America.

PRE-ALGEBRA



Integers: absolute value; operations, exponents, roots, and their properties; order of operations.

Expressions: evaluating and simplifying expressions; translating word phrases; scientific notation; estimating.

Equations: solving one- and two-step equations; simplifying; solving linear inequalities; applying equations and inequalities.

Rational expressions: prime factorization; GCF and LCM; rational numbers; decimal equivalents; converting repeating decimals to fractions; ratios and proportions; the real number system
Operations with rational numbers: evaluating and simplifying expressions; solving equations involving rational numbers; operations with scientific notation.

Percents: solving percent equations; applying percents; discount, markup, tips, commission, simple and compound interest; percent change; scales.

Applying equations: equations with variables on both sides; identities and contradictions; writing and solving equations and inequalities to solve problems; equations with powers, radical equations.

Functions: illustrating relations; defining and graphing functions; slope; writing linear equations; proportional relationships; graphing linear inequalities.

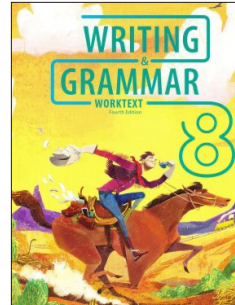
Systems of linear equations: solving linear systems by graphing, substitution, and elimination; special cases of linear systems.

Geometry: angles; polygons; the Pythagorean Theorem; distance and midpoint formulas; congruence and similarity; translation, reflection, rotation, and dilation transformations.

Perimeter, area, and volume: perimeter and circumference; areas of quadrilaterals, triangles, circles, and composite regions; ratios of lengths and areas of similar regions; surface areas and volumes of prisms, cylinders, pyramids, cones, spheres, and composite solids.

Statistics and probability: measures of central tendency and variation; representing data; distribution tables; scatterplots and trend lines; two-way tables; probabilities of simple and compound events.

WRITING AND GRAMMAR 8



Parts of Speech (and Verbals)

Review of all from Grade 7 plus the following new material: verb—progressive tense; indicative, imperative, and subjective).

Sentence Structure

Review of all from Grade 7 plus the following new material: adjective clause, adverb clause.

Mechanics

Review of all from Grade 7 plus the following new material: punctuation - parentheses, brackets, dashes, ellipses.

Usage

Review of all from Grade 7.

Writing Skills

Review of all from Grade 7 plus the following new material: six traits of writing, proofreading symbols, writing different types of paragraphs (definition, process, descriptive, compare-and-contrast, argumentative), writing an anecdote, visual representation, writing poetry, writing a business letter, expanding and combining (with parallel structures, with adjectives, with adverbs, with prepositional phrases, with participial phrases, with infinitive phrases).

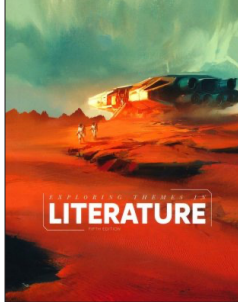
Examples of Writing Projects

Informative writing, narrative writing, argumentative writing, multigenre project.

Study & Reference Skills

Study skills are incorporated into Student Handbook. Reference skills are incorporated into a comprehensive research chapter.

MAKING CONNECTIONS IN LITERATURE



Approach

Thematic

Organization

Five themes: maturity, wisdom, generosity, freedom, nature

Content

Genres represented: biblical narrative, biography, drama, epistle, essay, fantasy, folktale (fable, fairy tale, myth), graphic novel, historical fiction, hymn, informational text, legend, letter, memoir, narrative nonfiction, novel adaptation, novel excerpt (includes fantasy novel excerpt, historical novel excerpt, and verse novel excerpt), poetry, science fiction, short story, speech

Cultures Represented

Australian (indigenous), African American, Caucasian American, Chinese American, Hispanic American, Native American, Burmese, Chinese, Cuban, British, French, German, Irish, Ugandan, Yiddish, Japanese, Jewish European

Features

This book is arranged by thematic units. Each unit opener contains an illustration, a unit theme, and a unit Essential Question. Selections within each unit require reading with discernment, a goal toward which all literature teachers hope to direct their students.

A Before Reading page precedes each selection and introduces students to a Big Question, the genre of the text selection, and two reading tasks: analyzing a work for its technical features (Author's Craft) and employing a reading comprehension strategy (Reader's Craft). The two tasks help students develop writing skills and critical-thinking skills. The Big Question provides an opportunity for biblical worldview shaping.

During Reading questions, which appear throughout each selection in the margin, guide students through the two reading tasks.

After reading, students answer Think & Discuss questions, many of which require them to demonstrate a high level of understanding of the concepts traced throughout their reading and the lesson.

Unit Review pages ask questions about key terms and concepts. The text also includes short biographical sketches of individual authors as well as writing opportunities.

The teacher edition includes lesson plans for the novel *Across Five Aprils*.

WALKING IN TRUTH 8



Walking in Truth trains students to defend their faith and respond to counterfeit worldviews.

- Christianity in Action available 2022 helps students understand how they can live out their Christian worldview in a post-Christian culture.