

Scope and Sequence for *Science in the Age of Reason*

This hands-on science course introduces a wide variety of scientific topics to elementary students of all ages. Because each lesson is built around an activity or experiment, it is engaging for all K-6 students. In addition, there are three levels of review for each lesson, so that the parent/teacher can choose the depth at which each student is expected to grasp the material. The course contains roughly 90 hours of instruction, 35 of which are composed of hands-on activities.

The course covers scientific topics in the context of history, discussing science as it was discovered. The first 15 lessons cover Edmond Halley through René Antoine Ferchault de Réaumur. The students learn about how stars change position over time, comets, measuring temperature, inoculation, details about the earth's shape, plant and animal physiology, dental hygiene, static electricity, the Bernoulli effect, chromatic aberrations, spectrometers, and how paper is made.

The next 15 lessons cover Pieter van Musschenbroek through Joseph Black, with special emphasis on the scientific discoveries of Benjamin Franklin. This section covers how hot objects cool, spontaneous generation, storing electricity, the nature of electricity, the Law of Charge Conservation, the physiology of sweat, ocean currents, unusual ways of making music, plant anatomy, binomial nomenclature, citrus fruits, scurvy, controlled experiments, distillation, latent heat, specific heat, and carbon dioxide production.

The next 15 lessons cover John Michell through Luigi Galvani. They discuss magnetism, earthquakes, producing electricity, elements, the composition of air, heat and mechanical energy, early technologies for making copies, submarines, carbonated beverages, plant physiology, combustion, the Law of Mass Conservation, and electrophysiology.

The next 15 lessons cover Alessandro Volta through Jeremias Benjamin Richter, with special emphasis on the scientific discoveries of Erasmus Darwin. Students learn about batteries, photosynthesis, weather, artesian wells, metamorphosis, resolution in telescopes, infrared light, more on spontaneous generation, digestion, echolocation, electrostatic force, Charles's Law, heat conduction, and acid/base neutralization.

The next 15 lessons cover James Hutton through John Dalton, with special emphasis on the scientific discoveries of John Dalton. The lessons in this section cover geological formations, erosion, sedimentary rock, rain, vaccination, the Law of Definite Proportions, the kinetic theory of matter, acid/base reactions, types of tissues in the human body, electrolysis, Dalton's Law of Partial Pressures, Dalton's Atomic Theory, and color blindness.

The final 15 lessons cover William Henry through Luigi Valentino Brugnatelli, with special emphasis on the scientific discoveries of Thomas Young. They cover Henry's Law, the nature of light, how people perceive color, Egyptian hieroglyphics, frictional and galvanic electricity, muscle physiology, spectroscopy, crystals, planets and dwarf planets, the earth's magnetic field, chemical reactions of gases, and electroplating.

Note that this course covers old-earth concepts and evolutionary concepts, because they started appearing in science during this time period. However, the author does provide young-earth creationist responses.