

Course offerings and class schedules change each year to meet the needs of our enrolled families. We use Apologia textbooks for most of our science courses. Sample textbook chapters (AKA modules, lessons) are at www.Apologia.com.

Monthly Science Classes

Students attend one day a month (September through April) to do lots of science investigations together. We provide you with a reading schedule and additional engaging activities students may do at home to further explore the concepts introduced during class.



Science ABCs (For ages 6 to 8)

We have tons of fun with teacher-developed activities and experiments beginning with every letter of the alphabet! Students are introduced to many fields of science: Biology, Chemistry, Physics, Earth Sciences, etc. This class runs on a three-year cycle, with new experiments every year. A student could enjoy Science ABCs three years in a row! This class meets once a month, 9 AM - noon. (This class does not use a textbook.)

Earth Sciences (Astronomy, Geology, and Weather) (For ages 8 to 12)

Students explore Astronomy, Geology, and Meteorology. We build a scale model of the Solar System that is $\frac{1}{2}$ mile long! Students learn to identify moon phases, eclipses, and circumpolar constellations. Our Geology unit includes rock collecting, minerals, fossils, core sampling, and topographic maps. In our Weather unit, we learn about the water cycle, cloud formation, and what to do during storms. Little writing is done in this class. It meets once a month, 9 AM - 2 PM. Apologia textbook: Exploring Creation with Astronomy by Jeannie Fulbright (either 1st or 2nd Edition) (Spiral notebooking journal is *not* used.)

Master Books: The Geology Book by Dr. John D. Morris; The Weather Book by Michael Oard



Zoology 3 - Land Animals (For ages 8 to 12)

Students learn about animals in jungles, deserts, forests, and farms. We examine predator/prey relationships, discover how animals hide using camouflage, identify animal tracks, dissect owl pellets, etc. Zoology 1 and 2 are not prerequisites for Zoology 3. However, it is helpful to read chapter 1 of Zoology 1 online for an introduction to classification. More writing is done in this class than in earlier classes. It meets once a month, 9 AM - 2 PM. Apologia textbook and associated spiral notebooking journal for: Exploring Creation with Zoology 3: Land Animals of the Sixth Day

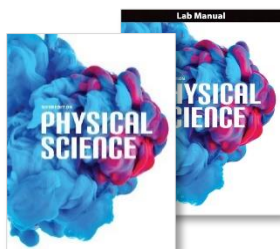
Weekly Science Classes

Each class meets two hours per week (August through May). We perform textbook activities as well as many additional experiments and relevant projects. Compound and dissecting microscopes, preserved specimens, chemicals, etc. are provided. Students learn to use these correctly in a fully equipped science lab environment and enjoy live animals, too!



Chemistry and Physics (Generally for 6th graders) This course provides an excellent transition from elementary to middle school science. Students engage in exciting hands-on activities and experiments using the scientific method. They are introduced to study skills (writing lab summaries, organizing notes, taking tests, etc.) in preparation for future classes like General Science. Apologia textbook and associated spiral notebooking journal for: Exploring Creation with Chemistry and Physics are used.

General Science (Generally for 7th or 8th graders) Students explore a wide range of topics including the history of science, the scientific method, astronomy, geology, paleontology, atoms, molecules, motion, simple machines, life science, oceanography, and ecology. This course is a step up from earlier classes, requiring more reading. **NEW 3rd Edition** (3 BOOK SET): Apologia textbook, spiral student notebook, and solutions/tests manual for Exploring Creation with General Science are used.



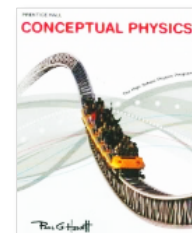
Physical Science (Generally for 9th graders) Students learn chemical reactions, nuclear changes, solutions, acids and bases, and in the physics units they learn about movement of matter and energy. Students will complete case studies, worldview activities, analyze samples, use data to make and test models, and complete STEM and inquiry-based labs. (1 high school science credit) **BJU Press 6th Edition Physical Science student textbook and lab manual** are used.
Student Textbook - ISBN: 9781628565058 & Lab Manual - ISBN: 9781628565065

Honors Biology (Generally for 10th or 11th graders) Students explore classification, cellular biology, Mendelian genetics, dissection, and ecosystems. Extra credit projects include an insect collection, tree leaf collection, and an owl pellet skeleton reconstruction. **NEW 3rd Edition** (3 BOOK SET): Apologia textbook, spiral student notebook, and solutions/tests manual for Exploring Creation with Biology are used along with Human Anatomy Coloring Book by Margaret Matt. (1 high school honors science credit)



Chemistry (Prerequisite: Completion of Algebra 1) Students learn about atomic and molecular structure, stoichiometry, thermodynamics, kinetics, equilibrium, acids and bases, solutions, gas laws, and oxidation-reduction reactions. Students do **not** need to buy their books. Great Oak Academy (G.O.A.) has Chemistry textbooks & solutions manuals for students to **rent**. Apologia: Exploring Creation with Chemistry, 2nd Edition (**NOT 3rd Edition**) (1 high school science credit)

Conceptual Physics (Prerequisite: Completion of Algebra 1) Students explore the mechanics of physics, Newton's Laws of motion, properties of matter, heat, sound, light, electricity, magnetism, Einstein's theories of relativity, and atomic & nuclear physics. Unique, hands-on labs are a key focus. (1 high school science credit) **Conceptual Physics** ©2009 by Paul G. Hewitt
Student Textbook - ISBN-13: 978-0133647495 is available for students to **rent** from G.O.A.



Computer Science (Prerequisites: Algebra 1, 10th grade and up) This is for students interested in Science, Technology, Engineering, or Math (STEM) with **little or no prior programming experience** but with a desire to understand computational approaches to problem solving. Students learn and utilize the Python programming language and become familiar with basic algorithmic techniques for solving common problems, as well as simulation and statistical methodologies for modeling complex systems and the foundations of machine learning. It requires logical aptitude or willingness to engage in complex problem solving. Students will be required to bring a laptop to class running Windows, macOS, or Linux operating systems (no Chromebooks). No textbook is required. (1 high school science credit)