

Introduction

Congratulations on choosing *Exploring Creation with Zoology 1: Flying Creatures of the Fifth Day*. You will find this to be an easy to use science curriculum for your whole family. The text is written directly to the student, making it very appealing to kids from six to thirteen. The material is presented in a conversational, engaging style that will make science enchanting and memorable for your students, creating an environment in which learning is a joy.

Lesson Increments

The lessons in this book contain quite a bit of scientific information. Each lesson should be broken up into manageable time slots depending on your children's age and attention span. This will vary from family to family. There are 14 lessons in this text, covering birds, bats, pterosaurs, and insects. The insect segment, beginning in Lesson 9, would best be done when the weather is warm and insects are easy to find. The book does not have to be done in order, but you should do lesson 1 first. After that, you can do the insect segment whenever it is most convenient for you. Most lessons can be divided into two-week segments.

You can do the reading and the notebook assignments during the first week, and you can do the experiments and the data recording during the second week. If you do science two or three days per week, you can read four to six pages a day to finish a lesson and begin the experiment. This will give you 32 weeks for the entire book. Older students can work through the book more quickly if they wish.



For record keeping and evaluation, narrations and notebooking replace the traditional and less effective method of filling in blanks in a workbook. We believe notebooking and narrations are a superior method of facilitating retention and providing documentation of your child's education.

Narrations



Older elementary students can do the entire book and most experiments on their own, while younger students will enjoy an older sibling or parent reading it to them. Each lesson begins with a reading of the text. Throughout the reading, the students will be asked to retell or narrate the information they just studied. This helps them assimilate the information in their minds. The act of verbalizing it in their own words propels them forward in their ability to effectively and clearly communicate with others that which they know. It also serves to lock the information into their minds.

Communication skills are necessary no matter what interests your children pursue, so please don't skip the narrations. Though they may seem to take up valuable time, they are vital to your child's intellectual development. Persevere through the first attempts; the more narrating the child does, the better at it he will become. The better at narrating the child becomes, the better at writing, researching, and clearly communicating his beliefs he will be. Some parents encourage their child to take notes as they listen to them read. You may or may not want to try this.

Notebooks

At the end of each lesson, notebook activities are used to give the child further experience with the material. The notebook is an important tool that will provide you and your child with a record of what was learned. The notebook activities generally occur at the end of a lesson, but they are sometimes used to break up lessons. Older students are given additional assignments in some of the notebooking segments for more challenge.

Projects and Experiments

In this text there are a wide variety of projects and experiments. Every single lesson ends with an opportunity to further ground your child in real science using the scientific method. These experiments will help your children to develop the skills needed to conduct valid and scientifically accurate science experiments. The last lesson culminates with the children designing and conducting their own experiment based on their own hypothesis about caterpillars. This last experiment will help you evaluate whether your child genuinely understands the necessary components for designing an experiment. This is an important skill that often shows up on upper elementary achievement tests.

The projects and experiments in this book use mostly common, household items. As a result, they are fairly inexpensive, but you will have to hunt down everything that you need. To aid you in this, pages viii-xi contain a list of the materials that you need for the experiments and projects in each lesson. If you would rather spend some money for the sake of convenience, you can purchase a kit that goes with this course. It is sold through a company called "Creation Sensation," and you can contact them at 501-776-3147. Alternatively, you can visit their website at <http://www.creationsensation.com/>.

The Immersion Approach

Is it Okay to Spend a Year on Just a Part of Zoology?

Many educators promote the spiral or survey approach to education, wherein a child is exposed over and over again to minute amounts of a variety of science topics. The theory goes that we just want to "expose" the child to science at this age, each year giving a bit more information than was given the year before. This method has been largely unsuccessful in public and private schools, as National Center for Education Statistics (NCES) data indicate that eighth graders are consistently less than 50% proficient in science.

This method assumes the young child is unable to understand profound scientific truths. Presenting a child with scant and insufficient science fails to develop a love for the subject. If the



learning is skimpy, the subject seems monotonous. The child is simply scratching the surface of the amazing and fascinating information available in science. Sadly, students taught in this way are led to believe they “know all about” that subject, when in reality the subject is much richer than they were allowed to explore. That is why we recommend that kids, even young children, are given an in-depth, above their perceived grade level exploration into each science topic. You, the educator, have the opportunity to abandon methods that don’t work so that your students can learn in the ways that have

been proven effective. The immersion approach is the way everyone, even young kids, learn best. That is why we major in one field in college and take many classes in that field alone. If you immerse your child in one field of science for an entire year, he will develop a love for that subject and a love for learning in general.

Additionally, a child that has focused on one subject throughout an entire year is being challenged mentally in ways that will develop his or her ability to think critically and retain complex information. This will actually benefit the child and give him an advantage on achievement tests. He will be able to make more intelligent inferences about the right answer on science questions, as God has created an orderly world that works very similarly throughout all matters of science. A child who has not been given the deeper, more profound information will not understand how the scientific world operates.