

Dear Parent of Prospective Honors Student,

As the 2009-2010 school year comes to a close and summer break quickly approaches, the WCA faculty is busy preparing for the upcoming school year. We have many exciting plans for next year and we hope they will serve to enrich your child's academic experience. In an effort to provide your student with a rigorous and fulfilling academic schedule, we are continuing to offer an Honors Program for selected High School classes. This program will focus on developing higher-level critical thinking skills, offering research opportunities, and providing hands on learning experiences. It will also serve as preparation for advanced course work in the future.

Only a select group of students will participate in the Honors classes. These students will be challenged to delve more deeply into the subject matter and earn a weighted grade in the process. Based on my past experiences with your child, I recognize his or her academic abilities, motivation and desire to learn. It is for these reasons that I am recommending your student for the Honors Biology course.

In Honors Biology, we will explore life from both a "skin-in" perspective and a "skin-out" perspective. In the first semester, we will explore the world of the cell and genes. Projects will include creating a children's book that tours cell organelles and researching and debating the ethics of stem cell research, cloning, and genetic modification. In the second semester, we will explore both global and local ecology. We will research the multi-faceted environmental, economic, and political issues surrounding the conservation of the Chesapeake Bay, participate in mock stakeholder meetings, and develop a water management plan for the Bay. Near the end of the semester, we will explore anatomy and dissect a fetal pig!

Over the summer, students will read More Than Meets the Eye by Richard A. Swenson, M.D. This book is a wonderful overview of aspects of science that show glimpses of God's power and design in creation. Students will keep a journal with discussion questions for each chapter and write a reflective paper detailing their thoughts on the book.

By completing the summer assignment, your child acknowledges his or her commitment to the academic challenge offered by the Honors Biology Course. The assignment will be collected on the first day of class. Any student who does not have the summer assignment at this time will not be able to continue in the Honors Course. Any student who does complete it will show that they are ready to join me on a journey of scientific inquiry and discovery.

Have a great summer!

Rebecca Elton

Honors Biology Summer Project

Read More Than Meets the Eye by Richard A. Swenson, M.D. and answer the following questions about each chapter. Part of your grade will be based on the quality of your writing, so take your time and avoid spelling and grammar mistakes. Each answer should be at least 2 full paragraphs in length.

Introduction

After reading the introduction, write your own ten-minute conversation with God. If you were in His presence for 10 minutes, what would you ask? What would you want to know? As you imagine God's responses, remember that He is omnipotent, omnipresent and omniscient!

Chapter 1

Paul wrote "Though outwardly we are wasting away, yet inwardly we are being renewed day by day." Why does the author suggest that Paul was correct on both the spiritual and the physical levels?

Chapter 2

How are the respiratory and circulatory systems designed to transport oxygen from the atmosphere into our cells? List the major players and describe how they make this exchange possible.

Chapter 3

Pick one of the 5 senses and describe how it functions. Include at least one interesting fact about the complexity of its design. If there is not enough information in the book, feel free to do some outside research, but make sure to cite your sources.

Chapter 4

In Chapter 4, Swenson lists several factors which are important when discussing memory. Think of a memory from your life that could serve as an example of one of these factors. Explain.

Chapter 5

After reading this chapter, what would you say to a naturalist who does not believe in the existence of a Creator God? Construct a succinct, well-thought out, persuasive paragraph to describe your viewpoint.

Chapter 6

Pick either the integumentary system, the digestive system, or the musculoskeletal system. As you read the chapter, describe the functions of the different parts of these systems and give one example of how their complexity points to a Creator.

Chapter 7

What are some of the connections between the biology of the human body and the theology presented in the Bible? Why is it important that our bodies remain His temples?

Chapter 8

Summarize the four forces that influence matter in the universe. What would the world be like without one of these forces?

Chapter 9

Describe the first two laws of thermodynamics. How do these laws point to a Creator God?

Chapter 10

Pick one body in the universe that interests you and is mentioned in this chapter. Do some further research about it. What amazing facts can you find about it that are not mentioned in this chapter. Cite your sources.

Chapter 11

What are some aspects of God that we have difficulty grasping because of our human perspective on time and space?

Chapter 12

How has God been revealed to people throughout Biblical history? How is God revealed to us today? Ponder what it means that even though the revelation has changed, God has not.

I hope you enjoy reading this book. If you have any questions, feel free to contact me over the summer.

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