

# Learning to Search the Scriptures

## **PHYSIOLOGY**

HOW and WHY God Created My Body

Glenn J. Kimber, PhD Julianne S. Kimber, MA



#### Published by Textbook Publishers

## SEARCHING THE SCRIPTURES The Study of PHYSIOLOGY How and Why God Created My Body™

2012 edition

© 2012 by Glenn J. and Julianne S. Kimber ALL RIGHTS RESERVED

\_\_\_\_\_

Except for immediate family and home use, no portion of this workbook may be copied, printed or published without written permission from the publishers or the authors.

\_\_\_\_\_

#### **TABLE OF CONTENTS**

How and Why God Created My Body  $^{\scriptscriptstyle\mathsf{M}}$ 

Introductory Information	page	i
Why You Are Important to God	page	ν
Cells—Building Blocks of Your Body	page	1
The Eight Systems of the Body	page	7
Circulatory System	page	9
Respiratory System	page	13
Skeletal System	page	17
Muscular System	page	21
Digestive System	page	25
Cleansing System	page	29
Nervous System	page	33
Reproductive System	page	37
WHY did God Create My Body	page	41
Review to Check Your Knowledge	Ρασρ	12

#### SEARCHING THE SCRIPTURES

#### The Study of Physiology – How and Why God Created My Body<sup>™</sup>, MOGDOIS

Welcome to the exciting study of PHYSIOLOGY — How and Why God Created My Body!

of all the subjects in science that you research during your educational experience, this subject could be the most rewarding and interesting.

God's greatest creation is the human body. The Bible says: "So God created man in his own image, in the image of God created he him; male and female created he them." (Genesis 1:27) It is a glorious thing to know that our bodies are in God's image. In your studies, you will gain a more sure knowledge that you were created and placed here by a loving Father in Heaven who has a vital interest in all that you do.

All eight systems (sometimes referred to as kingdoms) of your body have been designed for one purpose: To keep you alive and well. This is true of your spirit body as well. Its function is to keep you spiritually alive and well. As you apply this study in the scriptures, you will discover the miraculous physical and spiritual systems of your body.

You will then understand just how important you are to God and WHY He

has given you the gift of life.

By extensive study and research, we have found that the best way to study science is to write your *own* textbook. Normally, in science classes, students are required to read, study, and memorize other authors' works; students must then pass a quiz or test at the end of a chapter or the book. The student's knowledge is therefore based only on the tests "passed."

We found that knowledge increases over 600% when students create their own textbooks. With science, this is accomplished by defining, illustrating, labeling, researching and explaining key vocabulary words.

Searching for answers in the Bible while writing your own textbook will not only be challenging and exciting, but you will never forget the information – because YOU wrote it! And because there is no end to the knowledge of how and why God created you, in later years you may wish to go back to your original work and add new research and insights.

This book is simply a GUIDE to help you write your personal Physiology textbook. The following pages suggest ways to

organize and write it so that your book will become your own masterpiece.

Materials You Need:

- The Bible and other religious resources of your choice
- A parent-approved reference book about physiology
- A 3-ring binder (with a slip-in cover)
- Drawing utensils
- Plain paper for drawings
- Lined paper for writing down your research
- Ten tab dividers
- Optional: Sheet protectors for your illustrations and drawings

\_\_\_\_

#### Guidelines

COMPLETE YOUR SCIENCE BOOK IN ONE SCHOOL YEAR. Even though you will be going at your own pace and level of learning, you will want to set the goal of completing your book before the end of the school year so you can prepare it for display -- or even publishing.

YOU ARE THE TEACHER. By writing your own textbook, you will be teaching yourself. You will be doing your own research, writing, organizing, illustrating, and thinking.

SEARCH THE BIBLE. The true purpose of studying science is to teach you how to search the scriptures. No one knows

more pertaining to science than your Heavenly Father. As you study the scriptures, you will find out WHY everything was created.

SEARCH RELIGIOUS WRITINGS. In addition to the Bible, you can also use other religious books. These contain many of God's own explanations. You will notice that His Word is often very different from man's secular information. Knowing God's truths about man's creation and origin will keep you from becoming confused about life's purpose.

USE ADDITIONAL REFERENCE BOOKS. You will also need to get a parent-approved reference book about physiology. You can use high school science texts, encyclopedias or college texts and the internet. These sources will answer HOW your physical body functions.

TAKE GOOD NOTES. Write down ALL reference books and internet sites you use for your research. Also keep a record of the things you feel are vitally important. Your personal notes are not only good references for your continuous review, but your information will be very useful to others as well.

#### How to Write your Science Book

- 1. First, assemble a 3-ring binder with:
  - a. Ten dividers.
  - b. About 50 pages of lined paper
  - c. About 50 pages of plain paper for your illustrations
  - d. Sheet protectors for your illustrations (optional)
- 2. Next, design your own cover and slip it in front of your 3-ring binder, making sure your name is printed somewhere on the cover. You may also wish to design a cover page for each of the systems of the body. You can use the computer, or create your own illustrations.
- As you proceed through each of the sections of this guidebook, be sure to read ALL the information presented. This material is important for instruction as well as information.
- 4. Write down each vocabulary word and:
  - a. Write the definition of the vocabulary word in your book.
  - Search for its use and function in the Bible and other religious references.

- c. Illustrate the vocabulary word.
- d. Research it in other reference books such as encyclopedias, internet, etc.
- e. Explain what that vocabulary word does, or its function physically.
- f. Explain its spiritual use and/or function.
- 5. Do at least 3 of the Learning Exercises suggested in each section.
- 6. When you have finished each section, create a "Review" page for readers of your book. Make an answer key so they can check their answers.
- 7. After completing all of the systems of the human body, research and write down your discoveries as you answer the question: WHY did God create my body?

Preparing Your Completed Science Book for Display

When you have accomplished the above list and have finished writing all the research and illustrations for your book, begin to assemble it:

- If you haven't already done so, create an illustrated page to introduce each of the eight systems.
   Put this page immediately after the tab dividers, in order.
- 2. Place your written research pages in each section according to the vocabulary words, in the order given in this guidebook.
- 3. Insert the illustrations, photographs, or drawings immediately after the written research pages of each vocabulary word.
- 4. Compile your list of all the references you used and place this page in the back of your book as a "bibliography."
- 5. Write an introduction to your book, sharing your experience in writing it.
- 6. Remove all unused paper.
- 7. Double-check to make sure your book is in order.

- 8. Number the pages.
- 9. Create a Table of Contents.
- 10. Give your completed science book to the instructor for display, and/or find out how you could get it published.
- 11. After your science book has been on display, take it home. (Now you have a great and wonderful personal teaching tool to use for your own children some day!)
- 12. Now you can choose any of these science books for your next study:
  - How and Why God Created Things (The Study of Chemistry)
  - How and Why God Created Plants (The Study of Botany)
  - How and Why God Created Animals (The Study of Zoology)
  - How and Why God Created the Earth (The Study of Geology)
  - How and Why God Created the Universe (The Study of Astronomy)

### WHY YOU ARE IMPORTANT TO GOD AND GOD IS IMPORTANT TO YOU

By W. Cleon Skousen

The following is an outline which was given to university students in a religious class given by W. Cleon Skousen. The purpose of this outline was to help the young people understand who they really are and the responsibility they have to God for their stewardship of life.

A. You are an important investment in terms of God's time and effort. (Sometimes we forget who we are!)

- 1. You are an eternal entity—not created and impossible to annihilate.
- 2. You were once a part of that vast infinity where unorganized intelligence and unorganized element exist.
- 3. You were among those selected by God to become a part of His organized kingdom.
- 4. You came voluntarily, as a free and independent agent.
- 5. In some manner, not presently revealed, you were tested as an intelligence.
- 6. You came out so far ahead that you were among the few chosen for training in godhood.
- 7. You were given a spirit body, the literal offspring of God, the Father.
- 8. You then moved into the First Estate where you were trained and tested.
- 9. There you were given a chance to abandon the upward struggle and return to the unorganized outer darkness. One-third of our brothers and sisters elected to take this course.
- 10. You rejected this temptation and fought on for God. You were one of the war heroes during the war in heaven which is mentioned in Revelations 12:7.
- 11. You were chosen before you were born to perform a great labor here on earth.
- 12. If you are college age, you have only about 15,000 days left to accomplish it.

(Continued)

#### B. Why God is important to you:

- 1. Outside of Him and His Kingdom you have neither hope nor happiness.
- 2. Only through Him can you have a complete self-realization which is called the
  - "fullness of joy."
- 3. Only through Him can you have your chosen companion in the next life.
- 4. Only through Him can you enjoy an eternal increase.
- 5. Only through Him can you make any progress at all.
- 6. Your spirit body is His.
- 7. Your physical body is His.
- 8. Your resurrected body will be His.

#### C. Remember who you are!

- 1. You are a unique person.
- 2. You have a unique mission.
- 3. For you, God has prepared a unique reward.
- 4. God has said: "This is my work and my glory, to bring to pass the immortality and eternal life of man." That's YOU. (Repeat that sentence to yourself and replace the word "man" with your own name.)



### **CELLS**

#### The Building Blocks of Your Body

To appreciate the miracle of your body, you must first understand living cells. These microscopic building blocks constitute the basic units of ALL life. Each cell is actually a tiny city within itself-with a leading government, organized 'officials' which protect the cell-city from invaders (your cells actually eat them!). A healthy body produces strong and healthy cells. Here is what an encyclopedia says about cells:

A cell is the basic unit of all life. All living things—tigers, trees, mosquitoes, and people—are made up of cells. Some animals and some plants consist of only one cell. Other plants and animals are made up of many cells. The body of a human being has more than 10 million million (10,000,000,000,000) cells.

Most cells are so small that they can be seen only under a microscope. It would take about 40,000 of your red blood cells to fill this letter 0. It takes several million cells to make up the skin on the palm of your hand." (World Book Encyclopedia, 1979 ed., Vol. 3,p. 250)

In a book called *Man Does Not Stand Alone*, author A. Cressy Morrison said: "We as human beings are well-ordered republics of billions on billions of similar cells; each cell is a citizen intelligently doing its full [assignment] of devoted service."

Mr. Morrison went on to say: "Every cell that is produced in any living creature must adapt itself to be part of the flesh, to sacrifice itself as a part of the skin, which will soon be worn off. It must deposit the enamel of teeth, produce the transparent liquid in an eye, or become a nose or an ear....It is hard to think of a cell as

right-handed or left-handed, but one becomes part of a right ear, the other becomes part of the left ear....In the exact place where they belong, they become a part of the right ear or the left ear and your two ears are opposite each other on your head, and not -- as in the case of a cricket -- on your elbows. Their curves are opposite, and when complete, they are so much alike you cannot tell them apart. Hundreds of thousands of cells seem impelled to do the right thing at the right time in the right place." (Morrison, A. Cressy, Man Does Not Stand Alone, Fleming H. Revell Company, 1964)

#### More about the Amazing Cell

- A. Cells are actually like tiny cities, with these parts:
- 1. The cell membrane is the watery wall around the cell, like a city wall.
- 2. The <u>nucleolus</u> is the center intelligence of the cell, like a governor.
- 3. The <u>nucleus</u> -- communicates information to the cell, like a governor might use a "cell" phone to send out messages.
- 4. The <u>nuclear membrane</u> -- is a protective wall around the "governor's residence."
- 5. The <u>mitochondria</u> makes up the cell's energy factory, like a power plant.
- 6. The golgi are transportation systems, like cars, buses, trucks and trains.
- 7. The <u>vacuole</u> -- vacuums up food and then spits out the cell's waste products, like garbage trucks on trash day.
- 8. The <u>cytoplasm</u> is a water-like substance, like a city's air quality.
- 9. The <u>lysosomes</u> -- guard the cell and fight off (eat) germs and foreign objects, like our local National Guard units and brave American soldiers.
- The <u>ribosome</u> -- helps the cell to grow and repairs it, like doctors and nurses.
- 11. The <u>endoplasmic reticulum</u> is where proteins (foods) are absorbed and stored. Here the cell actually eats, collects, and absorbs its food like a grocery store.

#### B. Cells Have Intelligence

As we have mentioned, different kinds of cells actually look and act like the body part that it creates and sustains. Heart cells, for example, beat a tiny pulse, muscle cells stretch, bone cells are hard and crusty, lung cells have the capacity to breathe (exchanging carbon dioxide for oxygen), long nerve cells are like electric wires sending signals.

If you have access to a computer and the internet, look at these sites to see what cells look like inside. You will also see how the intelligent cells know how and when to divide themselves as live entities. References:

- www.cellsalive.com (excellent explanation of a cell's insides

   animation)
- <a href="http://www.johnkyrk.com/mitosis.html">http://www.johnkyrk.com/mitosis.html</a> (animation of cell division)
- http://www.loci.wisc.edu/outreach/bioclips/CDBio.html (with music)
- <a href="http://www.youtube.com/watch?v=6cOjJKtpyms">http://www.youtube.com/watch?v=6cOjJKtpyms</a> (also shows additional sites)
- http://www.icnet.uk/kids/cellsrus/cellsrus.html (reproduction)

#### **Learning Exercises**

#### 1. SKIN CELLS

You will discover that skin cells form in layers.

- a. In your book, draw a row of skin cells and color them.
- b. As you know, skin cells can easily burn. Find out from a doctor or from medical resource books what is meant by "first degree burns," "second degree burns" and "third degree burns." Take notes and write in your book what you learned.
- c. Write a paragraph in your book about treating each type of skin burn.
- d. EXTRA: Draw skins cells that have 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> degree burns.
- e. Research what happens to skin cells if they freeze.

#### 2. MUSCLE CELLS

You will discover that muscle cells stretch like elastic bands.

- a. In your book, draw a cluster of muscle cells and color them.
- b. Try this experiment. Stand in a doorway and press your outside wrists against the door frame as hard as you can and count to 100. Then stand away, relax your arm muscles and see what happens! Write a paragraph about your discovery and your theory about why it happened.
- c. With a friend, have an arm wrestling contest by placing elbows on a table. Clasp hands to see who has the strongest arm muscle as you try to push the other person's arm down onto the table.

#### 3. BLOOD CELLS

You will discover that red blood cells are very independent, and have a very important job to do in the body.

- a. Draw and color a single red blood cell in your book.
- b. Find out the difference between red blood cells and white blood cells and write a paragraph about each. What is a "T Cell"?

(Continued, next page)