





Written by Paige Hudson

Lapbooking through the Human Body

Second Edition 2014 Copyright @ Elemental Science, Inc. Email: info@elementalscience.com

Digital Edition

Cover Design by Paige Hudson Pictures by Paige Hudson & Erin Simons (One Line Design)

All contents copyright © 2012, 2014 by Elemental Science. All rights reserved.

Copyright Policy

No part of this document or the related files may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording, or otherwise) without the prior written permission of the author. The author does give permission to the original purchaser to photocopy all templates and other supplemental material in this guide for use within their immediate family only.

Limit of Liability and Disclaimer of Warranty: The publisher has used its best efforts in preparing this book, and the information provided herein is provided "as is." Elemental Science makes no representation or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose and shall in no event be liable for any loss of profit or any other commercial damage, including but not limited to special, incidental, consequential, or other damages.

Trademarks: This book identifies product names and services known to be trademarks, registered trademarks, or service marks of their respective holders. They are used throughout this book in an editorial fashion only. In addition, terms suspected of being trademarks, registered trademarks, or service marks have been appropriately capitalized, although Elemental Science cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark, registered trademark, or service mark. Elemental Science is not associated with any product or vendor mentioned in this book.

Lapbooking through the Human Body Table of Contents

Introduction		4
Lapbook Overview	7	
Books and Materials List	8	
Lessons		9
Lesson 1: Basic Building Blocks	10	
Lesson 2: Skeletal System	12	
Lesson 3: Muscular System	14	
Lesson 4: Nervous System	16	
Lesson 5: The Five Senses	18	
Lesson 6: Circulatory System	20	
Lesson 7: Respiratory System	22	
Lesson 8: Digestive System	24	
Lesson 9: Urinary System	26	
Lesson 10: Immune System	28	
Appendix	••••••	31
Book Narration Sheet	32	
Activity Sheet	33	
Blank Vocabulary Cards for Older Students	34	
Model Joints Directions	37	
Inhalation vs. Exhalation Worksheet	38	
Templates	•••••	T-1
Human Body Lapbook Cover Page Template	<i>T-2</i>	
Cells Mini-book	<i>T-3</i>	
Skin Mini-book	<i>T-4</i>	
Skeletal System Tab-book	<i>T-5</i>	
Muscular System Tab-book	<i>T-6</i>	
Nervous System Tab-book	<i>T-7</i>	
Five Senses Accordion Fold-book	<i>T-8</i>	
Circulatory System Tab-book	<i>T-9</i>	
Respiratory System Tab-book	<i>T-11</i>	
Digestive and Urinary Systems Accordion Fol	d-book T-12	
Immune System Tab-book	<i>T-13</i>	
Vocabulary Cards	T-14 - T-19	

Introduction

Lapbooking through the Human Body is a unique and versatile program that leads you through a survey of the human body using a lapbook to document the journey. It is designed to be a gentle approach to homeschool science education based on the Unit Study method suggested in *Success in Science: A Manual for Excellence in Science Education* by Bradley & Paige Hudson. This study can be used as a stand-alone science program for K-2nd grade or in conjunction with another biology program for an older student.

What is a lapbook?

Lapbooks are educational scrapbooks that fit into the lap of the student. Typically they are a collection of related mini-books on a certain subject that have been glued into a file folder for easy viewing, but they can also include pictures or projects that the students have completed. In the same way that notebooking does not require regurgitation of facts; lapbooking causes the students to interact with the materials instead of just responding to comprehension questions.

Lapbooks are extremely versatile because they can be used in conjunction with any subject the students are learning about. They are excellent tools to use with elementary students as a way of reinforcing what they are learning because this age group tends to prefer a more creative format of notebooking.

The heartbeat of the lapbook is the mini-books that are placed inside. Each of these booklets contains information on topics related to the main subject of the lapbook. They can be in a variety of shapes and sizes, but the cover should have a picture related to the subject as well as a title. The interior of each booklet should contain several sentences detailing what the students have learned about the topic in their own words. The mini-books will each pertain to different sub-topics of the main topic. In other words, for this lapbook your main topic is the human body and your related mini-books are on cells, skin, the five senses, and the individual body systems.

Lapbooks serve as beautiful scrapbooks that the students can continue to learn from for years to come, which makes them a beneficial addition to the students' science education.

What is included in this program?

Lapbooking through the Human Body includes all of the basic components of elementary science education as explained in our book.

- 1. Science-Oriented Books The elementary student is an empty bucket waiting to be filled with information and science-oriented books are a wonderful way to do that. These books can include appropriate children's science encyclopedias, living books for science, and/or children's non-fiction science books. In this program, the reading assignments and additional books scheduled in the lesson fulfill this component. The reading assignments are broken for you into two levels, younger students (K-2nd grade) and older students (3rd-5th grade).
- 2. Notebooking The purpose of the notebooking component for elementary science education is to verify that the students have placed at least one piece of information into their knowledge bucket. You can use notebooking sheets, lapbooks, and/or vocabulary words to fulfill this requirement. This unit includes all the templates and pictures you will need to

complete a lapbook on the human body as well as vocabulary words to coordinate with each lesson.

3. Scientific Demonstrations or Observations — Scientific demonstrations and observations are meant to spark the students' enthusiasm for learning science, to work on their observation skills, and to demonstration the principles of science for them. This component of elementary science education can contain scientific demonstrations, hands-on projects, and/or nature studies. The coordinating activities found in this guide fulfill this section of elementary science instruction.

If you would like to read more about the concepts introduced in the above points, check out *Success in Science: A Manual for Excellence in Science Education* and the following articles from Elemental Blogging.

- What Are Living Books? This article clearly shares the difference between living books and encyclopedias, especially in the context of science.
 - 1 http://elementalblogging.com/what-are-living-books/
- The Basics of Notebooking This article details the basic components of notebooking along with how a few suggestions on what notebooking can look like.
 - 1 http://elementalblogging.com/the-basics-of-notebooking/
- Scientific Demonstrations vs. Experiments This article explains the difference between scientific demonstrations and experiments along with when and how to employ these methods.

1 http://elementalblogging.com/science-corner-scientific-demonstrations-vs-experiments/

How can I use this program?

Each lesson in this program was designed to be completed over several days or up to one week. The lesson contains reading assignments from the selected books. You can choose to break these selections up over the several days or do them all at once. If you are using this program with younger students, read the selected pages to them. If you are using this program with older students, you can choose to have them read the assigned pages on their own or you can read the selected pages to them.

After you complete the reading assignment, have the students tell you what they have learned from the selection. This can simply be what they found to be the most interesting or something new that they have learned from the reading. You can choose to write the sentences for them or have them copy them into the mini-book. If you are using this program with older students, I recommend that you have them do all their own writing. Once the students have finished writing, have them color the related picture on the mini-book. Once the mini-book is complete, glue it into their lapbook using the overview sheet on pg. 7 as a guide.

At another time during the week, review the vocabulary with the students. You can have them memorize each of the definitions or just go over each of the words with the lesson before adding the card to the vocabulary pocket. I have also included a set of blank vocabulary cards to use with an older student in the Appendix on pp. 34-36. If you use the blank vocabulary cards, have the students look up the vocabulary words in the science encyclopedia of your choice or dictate the provided definition to them. Then, have them write the definition on the back of each card. I recommend that

you print the blank vocabulary cards out on card stock for durability.

Finally, you can finish the week by reading to the students one of the related books from the additional book list. After you finishing reading, do an additional activity with the students. If you would like to record what they have learned, there are two template pages provided for you to use in the appendix of this book on pp. 32-33

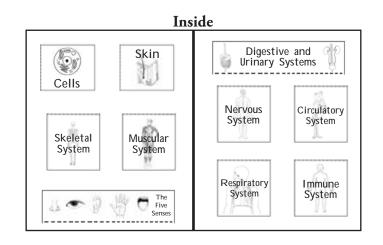
I have also included a possible schedule for each lesson to give you an idea of how to plan out each one. These schedules spread the assigned work for out over four days. If you choose to complete the program in this manner, this lapbook will take you six weeks to complete.

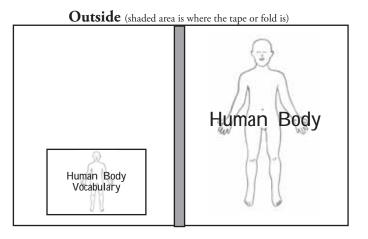
Final Thoughts

As the author and publisher of this curriculum, I encourage you to contact me with any questions or problems that you might have concerning *Lapbooking through the Human Body* at info@ elementalscience.com. I will be more than happy to answer them as soon as I am able. I hope that you will enjoy creating memories using *Lapbooking through the Human Body*!

Lapbook Overview

You will need 2 sheets of card-stock or one file folder. Begin by taping the two sheets together on the longest edge, to look like this:





Overall Directions

For each mini-book have the students color the pictures. Then, write the narration sentences for the students or have them copy the information into the inside of the mini-book. Finally, glue the mini-books onto the lapbook. You can use the cover template provided or allow the students to decorate the cover as they choose.

Books and Materials List

Books Scheduled

The following books are what I used while planning the reading assignments for this curriculum:

Younger Students DK First Human Body Encyclopedia Older Students Kingfisher Science Encyclopedia

However you could certainly use the encyclopedias you already have on hand or books from the library. Simply look up the topic assigned for the day, read about it and complete the section in your lapbook.

Additional Materials Needed

The following materials will be needed to complete the lapbook projects.

- > 2 sheets of 8 $\frac{1}{2}$ by 11 cardstock OR 1 file folder
- \succ Colored pencils or crayons
- imes Markers for decorating the cover
- ⊁ Glue stick
- \succ Scissors
- ⊁ Stapler

Additional materials will vary according to the activities you choose to do.

Overview of Study

- Lesson 1: Basic Building Blocks
- Lesson 2: Skeletal System
- Lesson 3: Muscular System
- Lesson 4: Nervous System
- *Lesson 5:* The Five Senses
- *Lesson 6:* Circulatory System
- *Lesson 7:* Respiratory System
- *Lesson 8:* Digestive System
- Lesson 9: Urinary System
- *Lesson* 10: Immune System

Lapbooking through the Human Body

Lessons

Lesson 1: Basic Building Blocks

Science-Oriented Books

Reading Assignments

Younger Students

- 🚇 "Amazing Body" DK First Human Body Encyclopedia pp.4-5
- " "Building Blocks" DK First Human Body Encyclopedia pp. 8-9
- (All Wrapped Up" DK First Human Body Encyclopedia pp. 68-69

Older Students

- "Body Organization" Kingfisher Science Encyclopedia pp. 98-99
- "Skin, Hair, and Nails" Kingfisher Science Encyclopedia pp. 100-101

Additional Books from the Library

- Body Works Skin and Hair by Katherine Goode
- Q Your Skin and Mine: Revised Edition (Let's-Read-and-Find... Science 2) by Paul Showers

Notebooking

Vocabulary

Have the students cut out and glue the vocabulary pocket on pg. T-14 into their lapbook. Then, have them cut out and add the following card to their vocabulary pocket.

Cells — A tiny, living units that is the building blocks of all living things. (Completed card on pg. T-14, Blank card on pg. 34)

Mini-book Assembly Instructions

- 1. **Cells Mini-book** Have the students cut out the mini-book and color the picture. Have the students tell you what they have learned about cells and write it for them on the inside of the mini-book. Then, glue the mini-book into the lapbook. (pg. T-3)
- 2. **Skin Mini-book** Have the students cut out the mini-book and color the picture. Have the students tell you what they have learned about skin and write it for them on the inside of the mini-book. Then, glue the mini-book into the lapbook. (pg. T-4)

Scientific Demonstrations or Observations

Coordinating Activity

Cell Model — Have the students make a Jell-O replica of a cell. Use a margarine container for your cell membrane, Jell-O for cytoplasm. Prepare the Jell-O according to the package directions. Fill your container three-quarters of the way with the mixture and place it in the fridge until it is soft set (about 30 minutes). Then, insert a grape in the center for the nucleus of the cell and use your imagination for materials for the remaining organelles.

Day 1	Day 2	Day 3	Day 4
 Read the sections on Amazing Body and Building Blocks (or Body Organization Complete the Cells Mini-book and add it to the lapbook 	 Read the section on All Wrapped Up (or Skin, Hair, and Nails) Complete the Skin Mini-book and add it to the lapbook 	 Complete the "Cell Model" activity Choose one or more of the additional books to read 	 Go over the vocabulary word and add the card to the vocabulary pocket Choose one or more of the additional books to read

Possible Schedule

Notes



Lesson 2: Skeletal System

Science-Oriented Books

Reading Assignments

Younger Students

- 🚇 "Skeleton" DK First Human Body Encyclopedia pp. 12-13
- " "Bendable Backbone" DK First Human Body Encyclopedia pp. 16-17
- " "Head Case" DK First Human Body Encyclopedia pp. 14-15
- 🚇 "Bones & Cartilage" DK First Human Body Encyclopedia pp. 20-21

Older Students

- " "The Skeleton" Kingfisher Science Encyclopedia pp. 102-103
- "Gones" Kingfisher Science Encyclopedia pg. 104

Additional Books from the Library

- Description Inside You (Let's-Read-and-Find... Science 2) by Philip Balestrino
- Bones: Skeletons and How They Work by Steve Jenkins
- A Book about Your Skeleton (Hello Reader!) by Ruth Belov Gross

Notebooking

Vocabulary

Have the students cut out and add the following card to their vocabulary pocket.

Skeleton — The framework of 206 bones that supports your body; it allows you to move and protects certain organs. (Completed card on pg. T-15, Blank card on pg. 34)

Mini-book Assembly Instructions

Skeletal System Tab-book — Have the students cut out the pages and color the cover. Then, have them tell you the purpose (or job) of the skeletal system and record it on the purpose page. After that, have the students tell you what they have learned about bones and the skull. Write it for them on the respective pages. Finally, staple the pages together and glue the tabbook into the lapbook. (pg. T-5)

Scientific Demonstrations or Observations

Coordinating Activity

Solution Backbone Model — Have the students make a model of the backbone. You will need 5 to 6 spools of thread, 2 cardboard discs and some string for this project. Tie one end of one of the cardboard discs to the string, then thread the string through the center of the spools of thread. Now tie the remaining cardboard discs to the other end of the string, close to the top of the last spool of thread. You now have a model of the spine that will twist and bend in all directions, just like our backbone.

Day 1	Day 2	Day 3	Day 4
 Read the sections on the Skeleton and Bendable Backbone Complete the Purpose page from the Skeletal System Tab-book 	□ Read the sections	 Complete the "Backbone Model" activity Choose one or more of the additional books to read 	 Go over the vocabulary word and add the card to the vocabulary pocket Choose one or more of the additional books to read

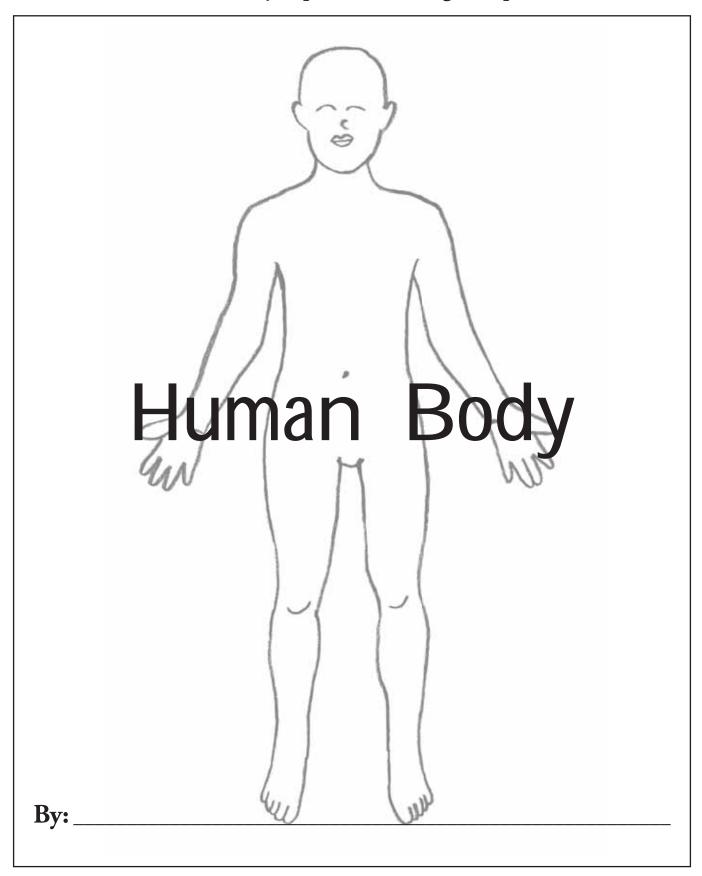
Possible Schedule

Notes



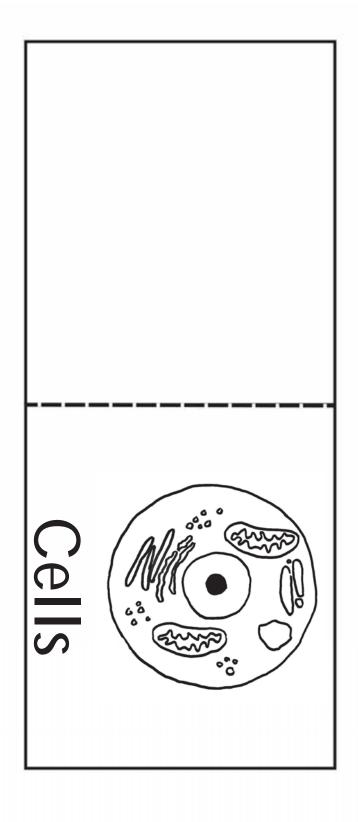
Lapbooking through the Human Body

Templates



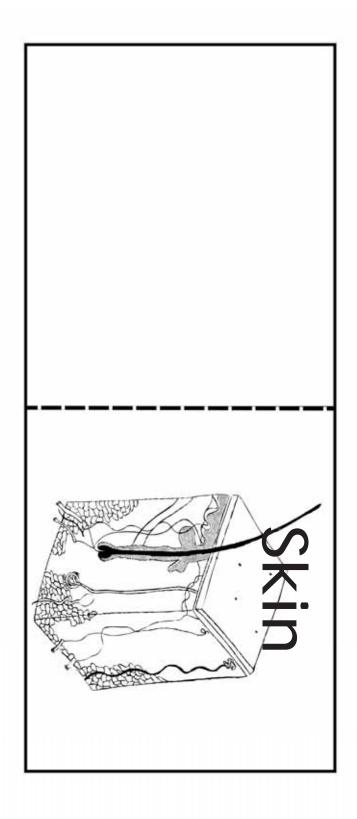
Lapbooking through the Human Body T-2

Cells Mini-book



Lapbooking through the Human Body T-3

Skin Mini-book



Skeletal System Tab-book

