



Science Chunks: Human Body Sample Packet

Teach your students the basics about the human body in bite-sized chunks. The following sample packet includes most of the first lesson of the *Science Chunks: Human Body* digital unit study. You will see:

- ✓ The Introduction (*beginning on p. 4*)
- ✓ The Lesson (*beginning on p. 8*)
- ✓ The Lapbooking Templates (*beginning on p. 11*)
- ✓ The Notebooking Templates (*beginning on p. 14*)

If you have questions about what you see, please let us know by emailing support@elementalscience.com. To get started, head to:

🔗 <https://elementalscience.com/products/science-chunks-human-body-unit>

A Peek Inside a Science Chunks Unit

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1. Lesson Topic

Focus on one main idea throughout the week. You will learn about these ideas by reading from visually appealing encyclopedias, recording what the students learned, and doing coordinating hands-on science activities.

2. Information Assignments

Find two reading options—one for younger students, one for older students, plus optional library books.

3. Notebooking Assignments

Record what your students have learned with either a lapbook or a notebook. The directions for these options are included for your convenience in this section along with the vocabulary the lesson will cover.

4. Hands-on Science Assignments

Get the directions for coordinating hands-on science activities that relate to the week's topic.

5. Lesson To-Do Lists

See what is essential for you to do each week and what is optional. You can check these off as you work through the lesson so that you will know when you are ready to move on to the next one.

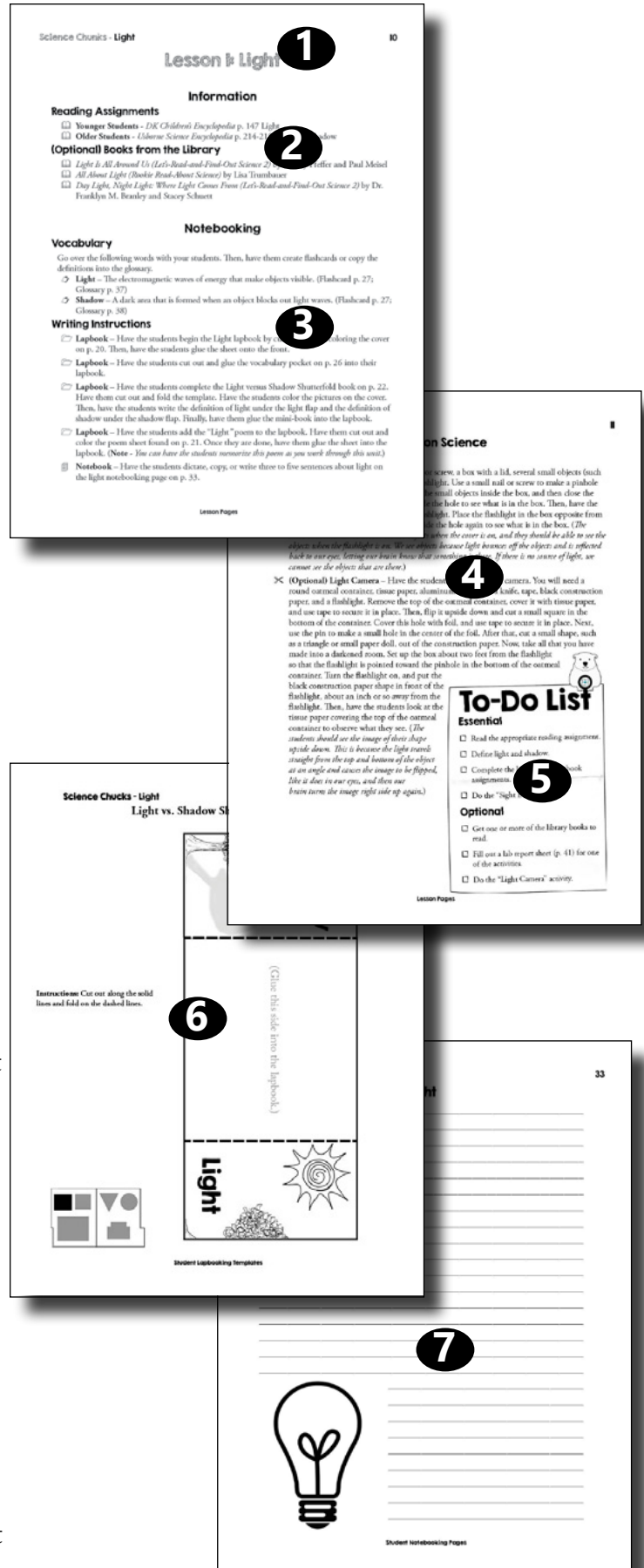
6. Lapbook Templates

Get all the information you need to create a lapbook on the subject.

7. Notebook Templates

Have all the sheets you need to create a notebook on the subject, including a glossary for the vocabulary terms.

In the appendix you will find a blank activity sheet, a blank lab report sheet, and a review sheet (or quiz).



TOPICS COVERED

This unit will cover the following topics:

- ✓ Lesson 1: Basic Building Blocks
- ✓ Lesson 2: Skin and Hair
- ✓ Lesson 3: Skeletal System
- ✓ Lesson 4: Muscular System
- ✓ Lesson 5: Nervous System
- ✓ Lesson 6: The Five Senses
- ✓ Lesson 7: Circulatory System
- ✓ Lesson 8: Respiratory System
- ✓ Lesson 9: Digestive System
- ✓ Lesson 10: Urinary System
- ✓ Lesson 11: Immune System



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Unit Introduction

Science Chunks - Human Body is a unique and versatile unit study that leads you through a survey of human body. It is designed to be a gentle approach to homeschool science based on the Unit Study method suggested in *Success in Science: A Manual for Excellence in Science Education* by Bradley and Paige Hudson. This study can be used as a stand-alone unit for elementary science.

What Is Included in This Unit

Science Chunks - Human Body includes the three keys to teaching science. With each lesson you will be doing the following:

- ✓ Listening to (or reading) **scientific information** from visually appealing encyclopedias
- ✓ Dictating (or writing down) what the students have learned and seen using **lapbooking or notebooking**
- ✓ Watching (and doing) **hands-on science** through a variety of science activities

Here is how this works for a lesson.

Section 1 - Information

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 age-appropriate children's science encyclopedias, living books for science, and/or children's nonfiction 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 (1st to 3rd grade) and older students (4th to 6th grade).

Our idea is that you will read these selections with your students, pausing to ask questions or discussing the information once you are done reading.

Section 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.

In this program, we have included two writing options, a lapbook and a notebook, for you to use with your students. In the lapbook section, you will find all of the templates and pictures you will need to complete a lapbook on human body. In the notebook section, you will find all the pages you need to create a simple notebook on human body, including notebooking sheets and a glossary.



Section 3 - Hands-on Science

Scientific demonstrations and observations are meant to spark students' enthusiasm for learning science, to work on their observation skills, and to demonstrate the principles of science for them. This component of elementary science education can contain scientific demonstrations, hands-on projects, and/or nature studies.


In this program, the coordinating activities at the end of each lesson fulfill this section of elementary science instruction. If you would like to record what you have done, you can use one of the templates in the appendix pp. 72-73.

What You Need in Addition to This Guide

Books Scheduled

The following books are what we used to plan the reading assignments for this unit:

 **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.

You will need also simple craft supplies and other science materials—see a complete list of essential items on p. 9.

How This Unit Works

We have included a to-do list with each lesson to give you an idea of what is essential and what is optional. There are several ways you can schedule this unit. Here is a quick look at a few of the options.

Possible Schedules for Your Week

- **One Day** – You can set aside about an hour to an hour and a half each week to complete all the essential tasks in one day.
- **Two Days** – You can set aside about 30 to 40 minutes twice a week to complete all the essential tasks, plus a few more, in two days. On the first day, you can complete the reading assignments and either the lapbook or notebook assignments. On the second day, you can complete the coordinating activity and the vocabulary assignments as well as read any library books.
- **Three Days** – You can set aside about 30 minutes three times a week to complete all the essential tasks, plus a few more, in three days. On the first day, you can complete the reading assignments and either the lapbook or notebook assignments. On the second day, you can complete the coordinating activity and write a lab report using one of the templates. On the

third day, you can do the vocabulary assignments as well as read any library books.

- **Four Days** – You can set aside about 20 to 30 minutes four times a week to complete all the essential tasks, plus a few more, in four days. On the first day, you can complete the reading assignments and either the lapbook or notebook assignments. On the second day, you can complete the coordinating activity and write a lab report. On the third day, you can do the vocabulary assignments as well as read any library books. On the fourth day, you can do the optional coordinating activity as well as read any library books.

If you choose to complete one lesson per week, this unit will take you eleven weeks to complete.

Final Thoughts

Read Further

If you would like to read more about the philosophy behind the Science Chunks series, check out *Success in Science: A Manual for Excellence in Science Education* and the following articles from our website.

- **The Three Keys to Teaching Science** – This article shares the three keys to teaching science, including a free session that walks you through what each key can look like.
<https://elementalscience.com/blogs/news/3-keys>
- **The Basics of Notebooking** – This article details the basic components of notebooking along with how a few suggestions on what notebooking can look like.
<https://elementalscience.com/blogs/news/what-is-notebooking>
- **Lapbooking versus Notebooking** – This article takes a look at the differences between lapbooking and notebooking.
<https://elementalscience.com/blogs/news/lapbook-or-notebook>
- **Scientific Demonstrations versus Experiments** – This article explains the difference between scientific demonstrations and experiments along with when and how to employ these methods.
<https://elementalscience.com/blogs/news/89905795-scientific-demonstrations-or-experiments>

Last Words

As the author and publisher of this curriculum, I encourage you to contact me with any questions or problems that you might have concerning *Science Chunks - Human Body* by emailing us at support@elementalscience.com. I, or a member of our team, will be more than happy to answer them as soon as we can. I hope that you will enjoy creating memories using *Science Chunks - Human Body*!

~ Paige Hudson

Materials List

Lapbook Materials

You will need the following materials to complete the lapbook:

- ✂ 2 Sheets of 8 ½" by 11" card stock OR 1 File folder
- ✂ Colored pencils or Crayons
- ✂ Markers for decorating the cover
- ✂ Glue stick
- ✂ Scissors
- ✂ Stapler

Notebook Materials

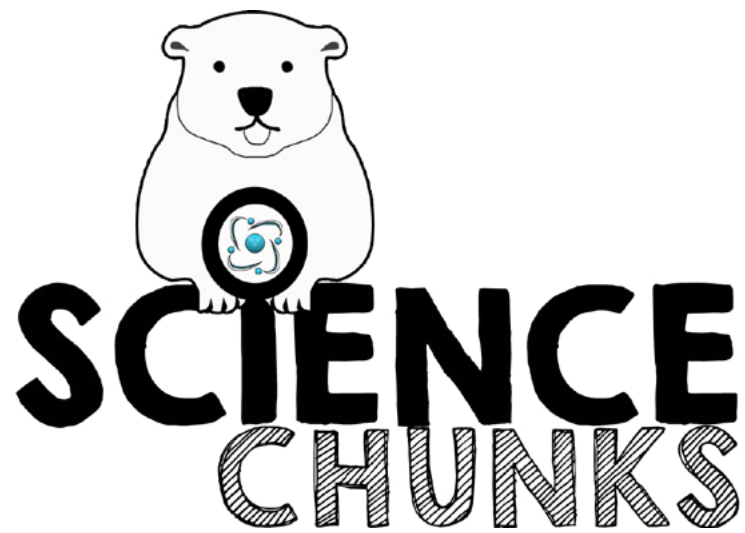
You will need the following materials to assemble the notebook:

- ✂ Hole punch and 3 Brad fasteners or String OR
- ✂ Staples

Coordinating Activity Materials

You will need the following materials to complete the essential coordinating activities:

- ✂ **Lesson 1:** Margarine container, Jell-O, Grape, Options for organelles
- ✂ **Lesson 2:** 5 to 6 Spools of thread, 2 Cardboard discs, String
- ✂ **Lesson 3:** Brad, Card stock, Scissors, Hole punch, 2 - 1x2 boards, Hinge, Screwdriver, Screws, 1 - ½" Plastic pipe, 1 - ¾" Plastic pipe, 1 - ½" Plastic pipe tee, 1 - ¾" Plastic pipe tee, Pipe saw, 2 Rubber bands
- ✂ **Lesson 4:** Book, See-through barrier like a window or a wire screen, Cotton ball
- ✂ **Lesson 5:** Different types of food, Paper plate, Cloth
- ✂ **Lesson 6:** Paper towel tube
- ✂ **Lesson 7:** *No supplies needed*
- ✂ **Lesson 8:** Large Ziploc bag, Bread, Coke
- ✂ **Lesson 9:** Balloon, Funnel, Water
- ✂ **Lesson 10:** Sterile cotton swabs, Petri dishes, Agar





Lessons



Lesson I: Basic Building Blocks

Information

Reading Assignments

-  **Younger Students** - *DK First Human Body Encyclopedia* pp. 6-7 What makes you you?, pp. 8-9 Building Blocks
-  **Older Students** - *Kingfisher Science Encyclopedia* pp. 98-99 Body Organization, pp. 100-101 Skin, Hair, and Nails

(Optional) Books from the Library

-  *Have a Nice DNA (Enjoy Your Cells, 3)* by Fran Balkwill and Mic Rolph
-  *Cells: An Owner's Handbook* by Carolyn Fisher




Notebooking

Vocabulary

Go over the following word with your students. Then, have them create a flashcard or copy the definition into the glossary.


-  **Cells** – A tiny, living units that is the building blocks of all living things. (Flashcard p. 48; Glossary p. 68)

Writing Instructions

-  **Lapbook** – Have the students cut out and glue the vocabulary pocket on p. 48 into their lapbook.
-  **Lapbook** – Have the students cut out the “Building Blocks” tab-book on p. 36 and color the pictures. Have the students tell you what they have learned about cells and DNA. Write it on the respective tabs for them. Then, have them staple the pages together and glue the mini-book into the lapbook.
-  **Notebook** – Have the students dictate, copy, or write one to four sentences for cells and DNA on the building blocks notebooking page on p. 56.

Hands-on Science

Coordinating Activities

-  **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.

- ✂ **(Optional) DNA Ladder** – Have the students build their own DNA ladders. You will need four different colors of LEGO® brick blocks (at least six of each). You can get directions for this project at the following website:

🔗 <https://elementalscience.com/blogs/science-activities/simple-lego-dna-tower>



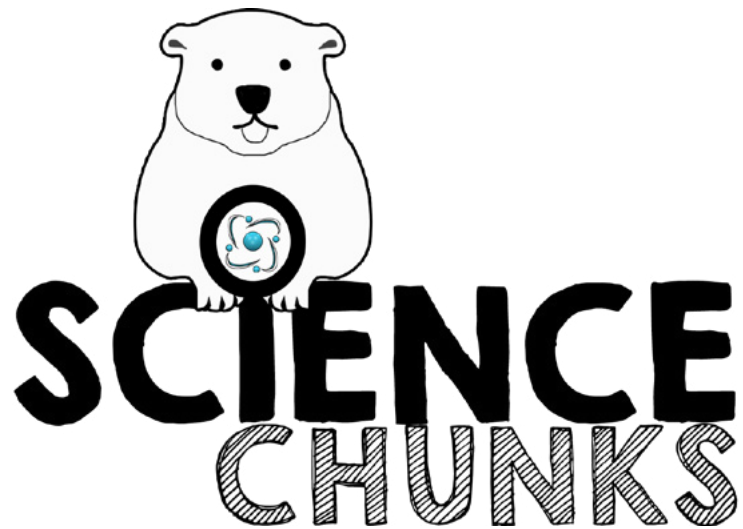
To-Do List

Essential

- ☐ Read the appropriate reading assignment.
- ☐ Define cells.
- ☐ Complete the lapbook or notebook assignments.
- ☐ Do the “Cell Model” activity.

Optional

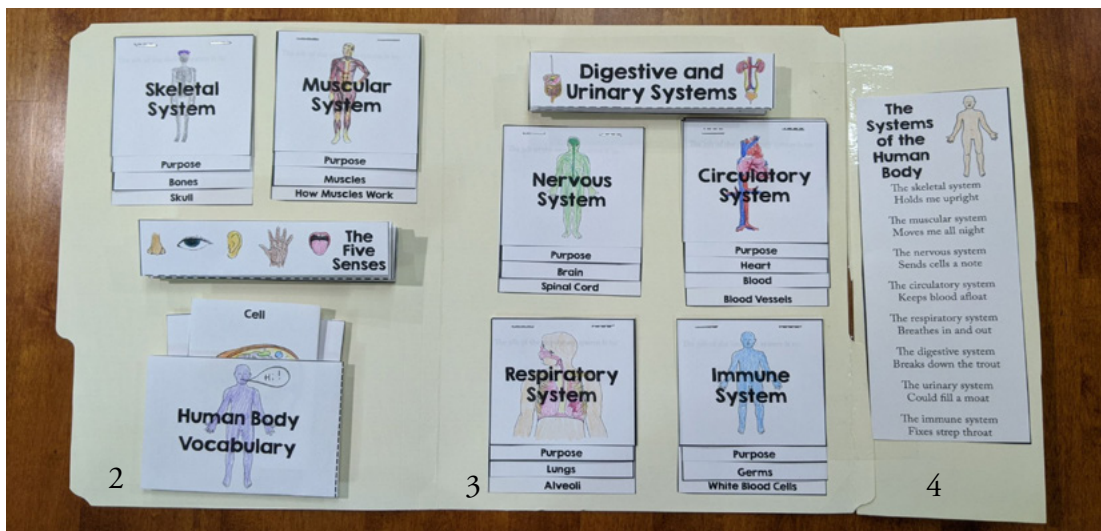
- ☐ Get one or more of the library books to read.
- ☐ Fill out a lab report sheet (p. 73) for one of the activities.
- ☐ Do the “DNA Ladder” activity.



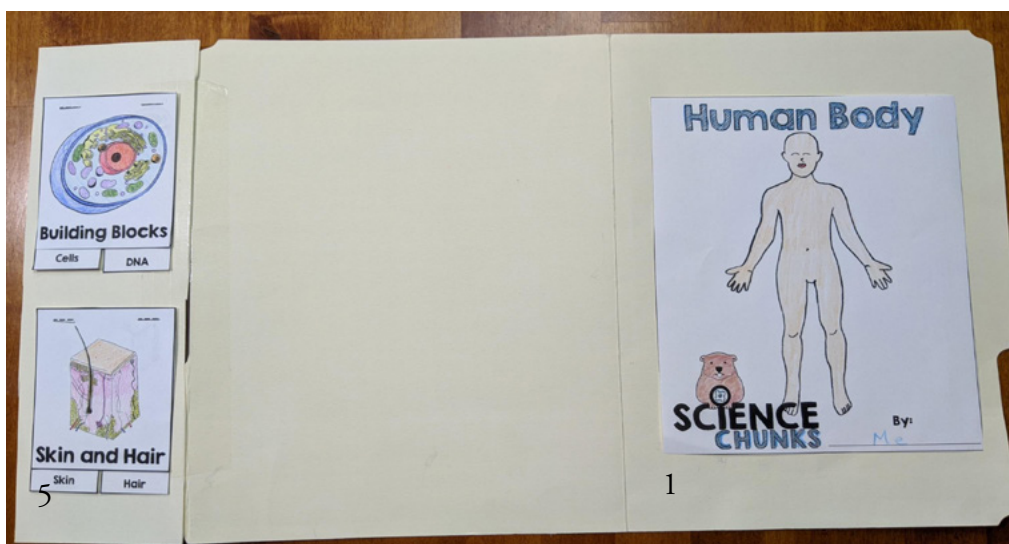
Student Lapbook Templates

Human Body Lapbook

You will need three sheets of card stock or two file folders. If you are using card stock, begin by cutting one of the sheets in half lengthwise and then tape the sheets together on the longest edge. If you are using the file folders, cut one of the folders in half and then cut one of those halves in half lengthwise again so that you have a thin rectangle that is about one-quarter of a file folder. Next, tape one-quarter-sized piece to the right side of the remaining full folder. The completed lapbook will look like this on the inside:

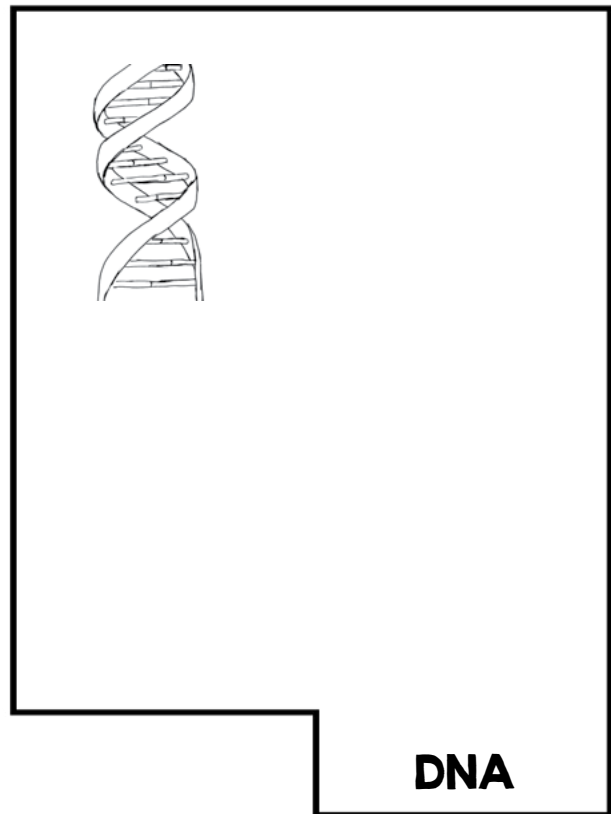
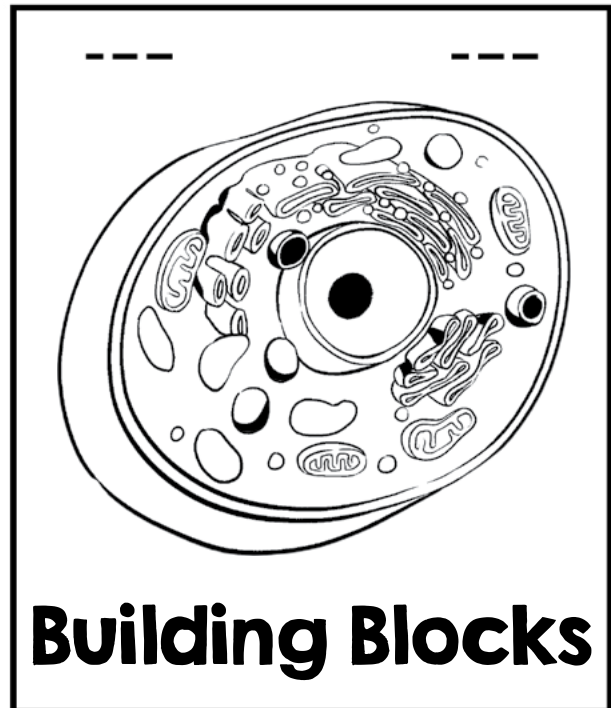
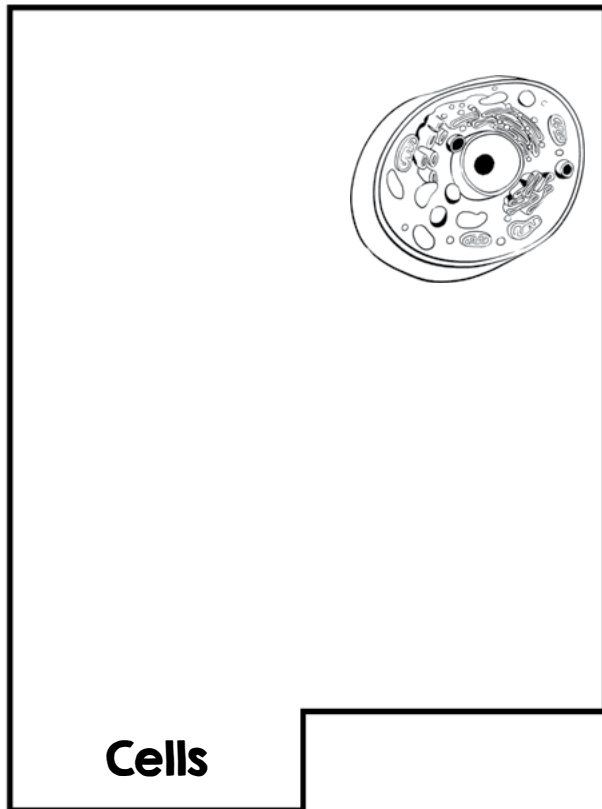


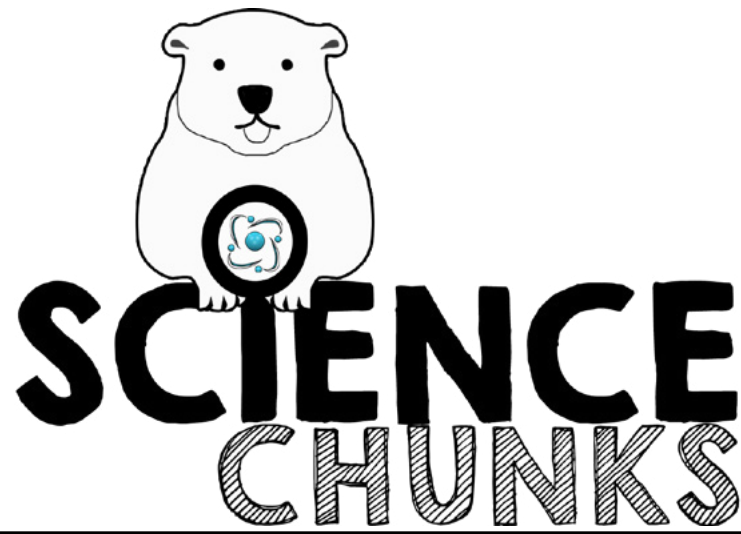
and the completed lapbook will look like this on the outside:



Building Blocks Tab-book

Instructions: Cut out along the solid lines, stack the pages so the tabs are visible, and staple together on the dashed lines.

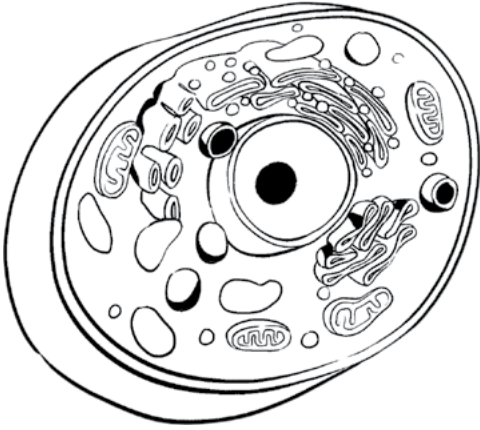




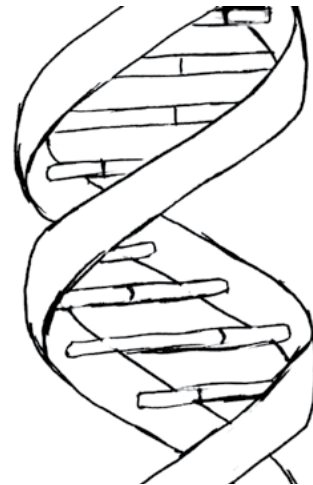
Student Notebook Pages

Building Blocks

Cells



DNA

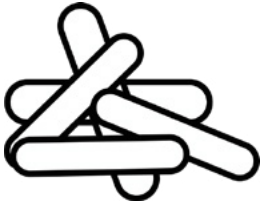


Human Body Glossary

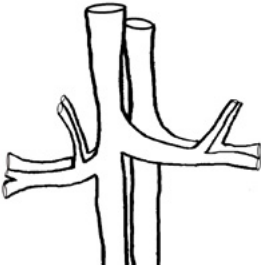
Alveoli -



Bacteria -



Blood Vessel -



Cells -

