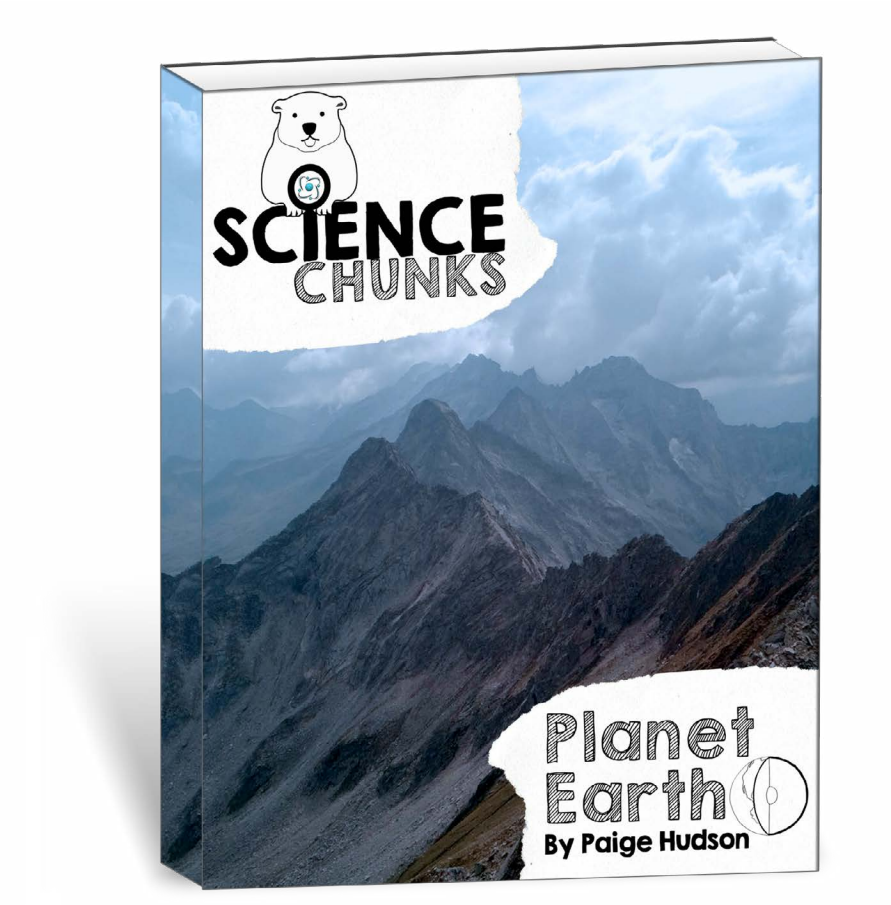


Science Chunks: Planet Earth Sample Packet

Teach your students the basics of planet Earth in bite-sized chunks. The following sample packet includes most of the first lesson of the *Science Chunks: Planet Earth* digital unit study. You will see:

- ✓ The Introduction (*beginning on p. 4*)
- ✓ The Lesson (*beginning on p. 10*)
- ✓ The Lapbooking Templates (*beginning on p. 13*)
- ✓ The Notebooking Templates (*beginning on p. 18*)

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-earth-unit

A Peek Inside a Science Chunks Unit

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).

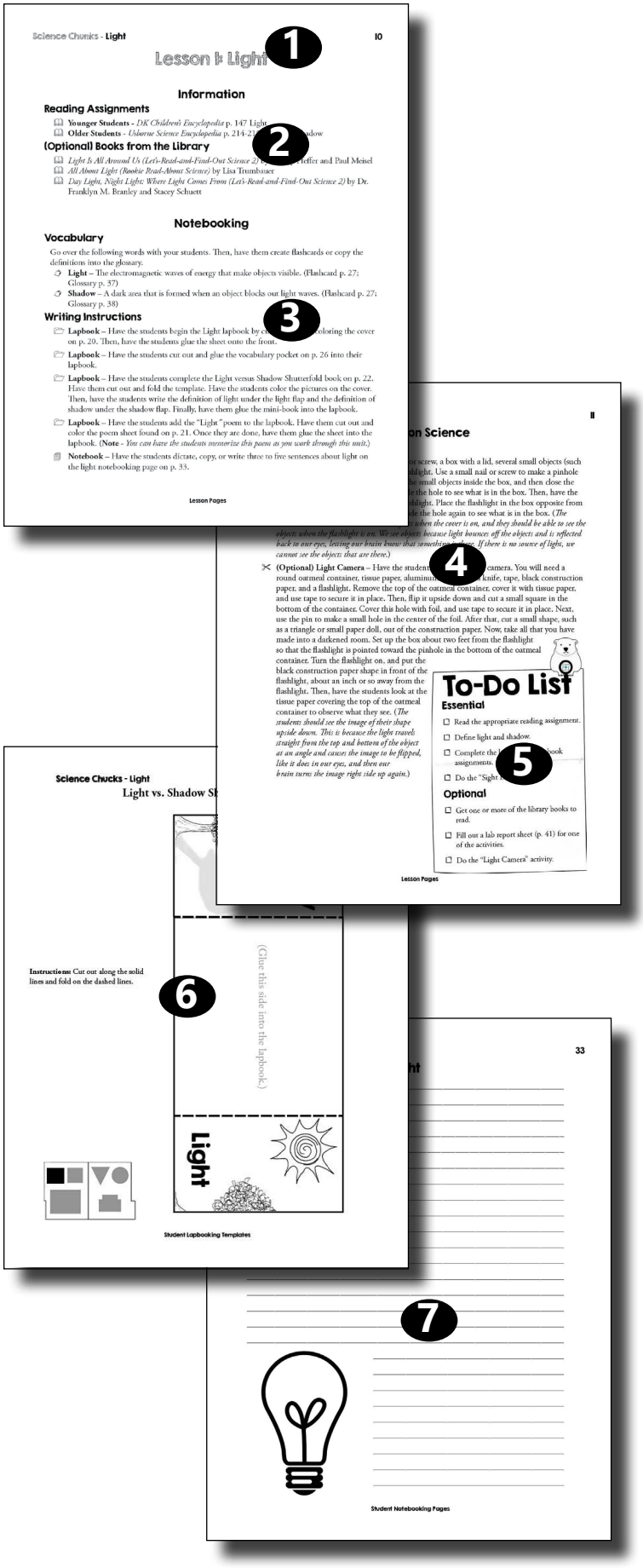


Table of Contents

Introduction.....3

A Peek Inside a Science Chunks Unit 5
Unit Introduction 6
Materials List 9

Lessons.....10

Lesson 1: Inside the Earth 11
Lesson 2: On the Earth 13
Lesson 3: Mountains 15
Lesson 4: Maps 17
Lesson 5: Conservation 19

Student Lapbook Templates.....21

Planet Earth Lapbook Cover Page Template 23
Planet Earth Sheet 24
Seven Continents Poem 25
Mountains Shutterfold Book 26
Maps Mini Tab-book 27
Compass Memory Sentence 28
Caring for Earth Mini-book 29
Vocabulary Cards 30

Student Notebook Pages.....33

Inside the Earth Notebooking Page 35
On the Earth Notebooking Page 36
Mountains Notebooking Page 37
Maps Notebooking Page 38
Conservation Notebooking Page 39
Planet Earth Vocabulary 40

Appendix.....42

Activity Sheet Template 43
Lab Report Template 44
Map of the Earth Template 45
Planet Earth Review Sheet 46

Unit Introduction

Science Chunks - Planet Earth is a unique and versatile unit study that leads you through a survey of the Earth. 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 - Planet Earth 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 the Earth. In the notebook section, you will find all the pages you need to create a simple notebook on the Earth, 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 demonstration 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. 43-44.

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 Children's 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 four 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 - Planet Earth* 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 - Planet Earth*!

~ 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

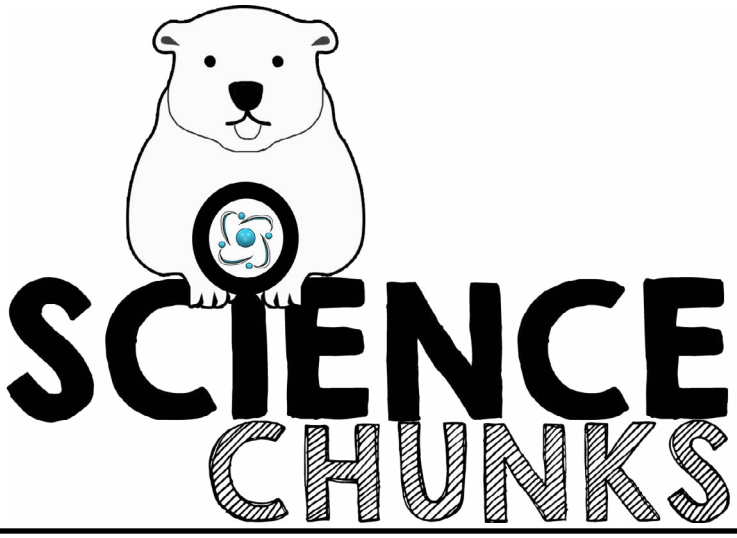
You will need the following materials to assemble the notebook:

- 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:** Modeling (or air dry) clay (red, orange, yellow, blue, and green), ruler
- **Lesson 2:** Globe (or large ball), desk lamp, Post-it tab (or another type of removable marker)
- **Lesson 3:** Large bath towel, flat, smooth surface
- **Lesson 4:** Straight pin, milk jug, knife, magnet
- **Lesson 5:** Supplies will vary depending on your plan



Lessons

Lesson 1: Inside the Earth

Information

Reading Assignments

- 🕮 **Younger Students –** *DK Children's Encyclopedia* p. 135 Inside Earth
- 🕮 **Older Students –** *Kingfisher Science Encyclopedia* pp. 8-9 Earth's Structure

(Optional) Books from the Library

- 🕮 *Flip The Flaps: Planet Earth* by Mike Goldsmith and Nicki Palin
- 🕮 *The Magic School Bus Inside the Earth (Magic School Bus)* by Joanna Cole
- 🕮 *See Inside Planet Earth (Usborne Flap Book)* by Katie Daynes and Peter Allen

Notebooking

Vocabulary

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

- 🖉 **Magma** – Molten rock found under earth's surface. (Flashcard p. 30; Glossary p. 40)

Writing Instructions

- 🗁 **Lapbook –** Have the students begin the Plant Earth lapbook by cutting out and coloring the cover on p. 23. Then, have the students glue the sheet onto the front.
- 🗁 **Lapbook –** Have the students begin the Labeled Earth Sheet on p. 24 by adding labels for "core," "mantle," and "crust" on the inner portion of the Earth picture. (*See the completed sheet on p. _ for the answers.*) Then, have them set the sheet aside for next week.
- 🗐 **Notebook –** Have the students dictate, copy, or write three to five sentences about the inside of the Earth on p. 35. (*You can also have the students label the different parts of the Earth on the picture*.)

Hands-on Science

Coordinating Activities

- ✂ **Model Earth –** You will need modeling (or air dry) clay (red, orange, yellow, blue, and green) and a ruler. Have the students begin by making a ball about ½ inch in diameter out of the yellow clay. (*This represents the Earth's inner core*.) Then, have the students make a flat circle out of the red clay and wrap it around the ball so that the ball is about 1 inch across. (*This layer represents the Earth's outer core*.) Next, have the students make a flat circle out of the orange clay and wrap it around the ball so that the ball is about 2 inches across. (*This layer represents the Earth's mantle, the thickest layer*.) Finally, have the students make a flat circle out of the blue clay and wrap it around the ball so that the ball is about 2 ½ inches across. Then,

use the green clay to make a few flattened pieces to represent the continents, and layer them over your ball. (*The blue and green clay layers represent the Earth's crust.*) After the students have finished the ball, cut the ball in half and have them observe the layers.

✂ **(Optional) Edible Earth** – Make an edible earth core with the students using Rice Krispie treats and icing. See the following website for directions:

http://teachbesideme.com/geography-earths-core-project/

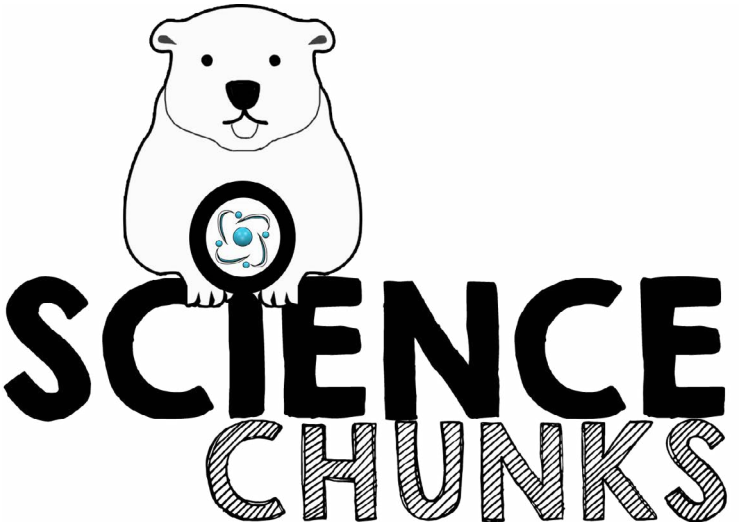
To-Do List

Essential

- ☐ Read the appropriate reading assignment.
- ☐ Define magma.
- ☐ Complete the lapbook or notebook assignments.
- ☐ Do the "Model Earth" activity.

Optional

- ☐ Get one or more of the library books to read.
- ☐ Fill out a lab report sheet (p. 44) for one of the activities.
- ☐ Do the "Edible Earth" activity.



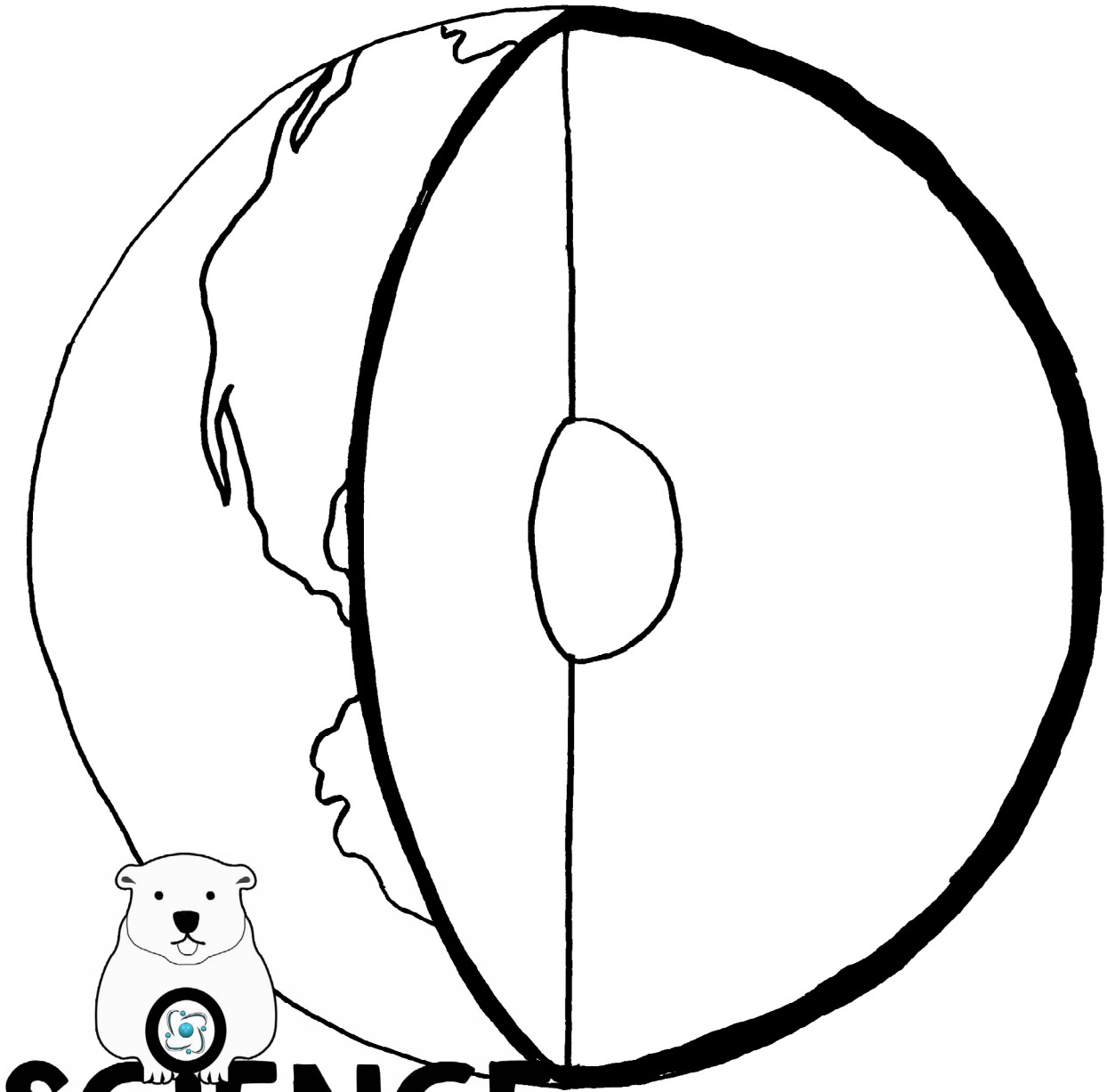
Student Lapbook Templates

Planet Earth Lapbook

You will need two sheets of card stock or one file folder. If you are using card stock, begin by taping the two sheets together on the longest edge. The completed lapbook will look like this on the inside:

Planet Earth Lapbook Cover Page Template

Planet Earth

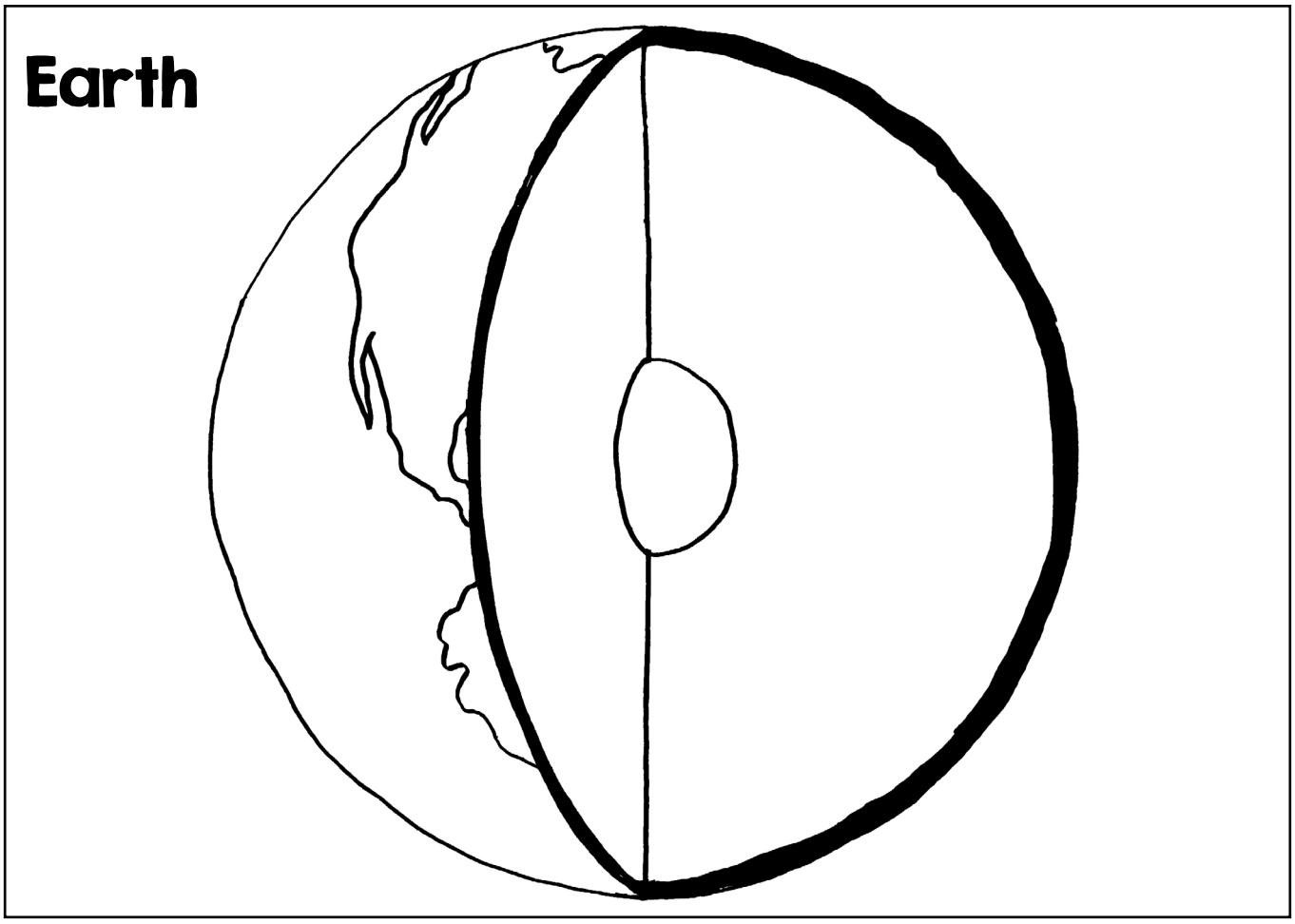


SCIENCE CHUNKS

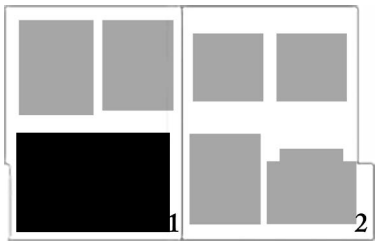
By: _____

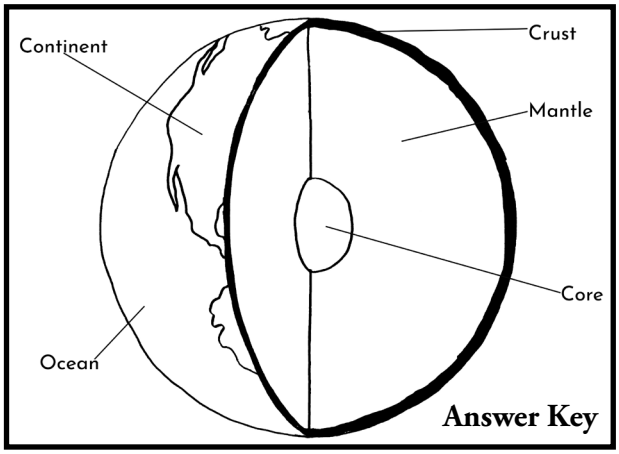
Instructions: Cut out along the solid lines.

Planet Earth Sheet

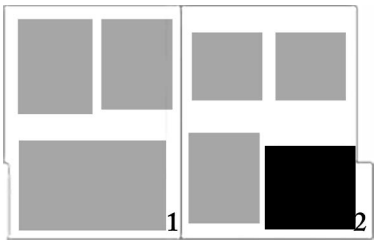


Instructions: Cut out along the solid lines.

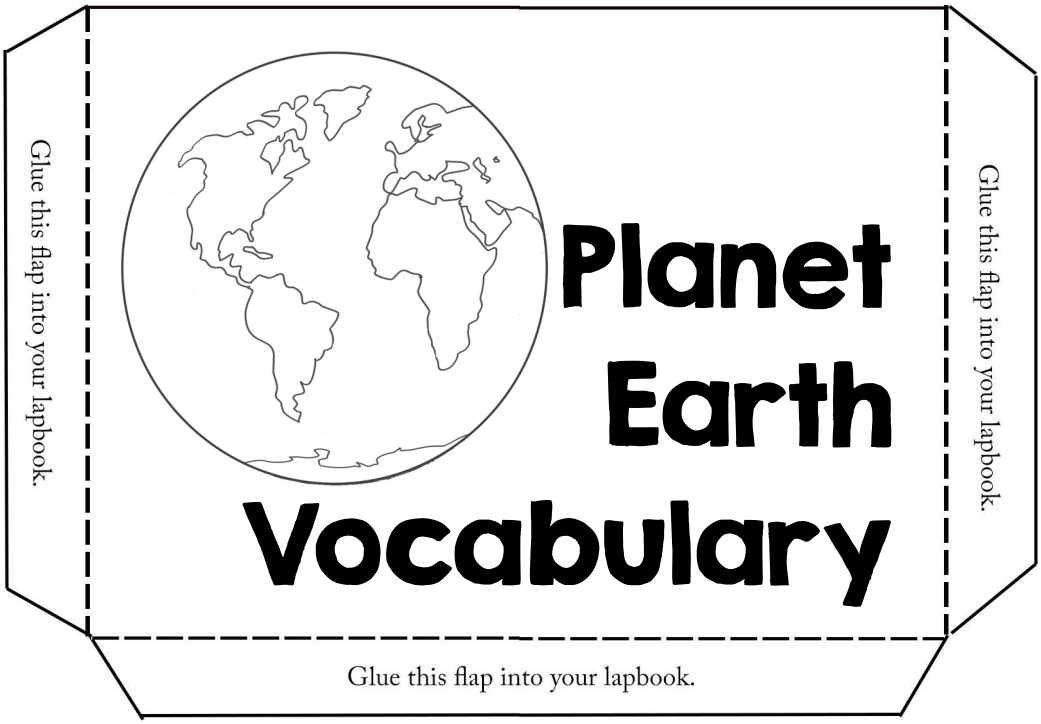




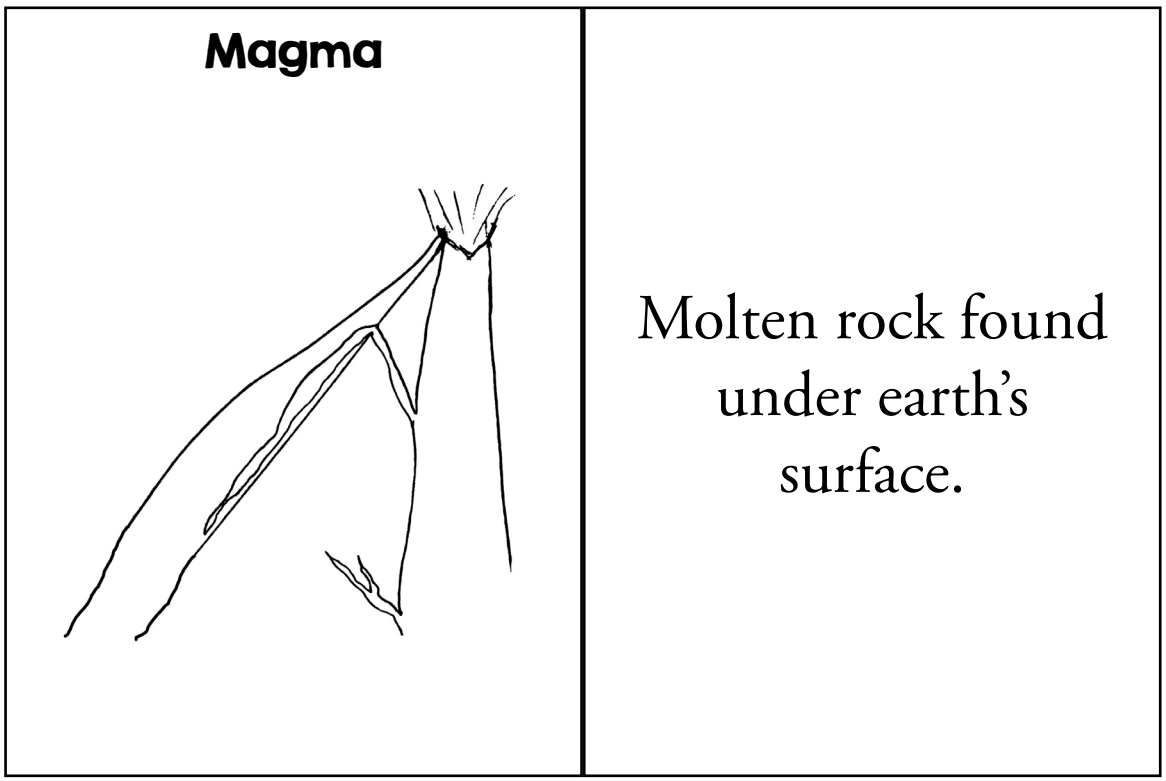
Vocabulary Cards

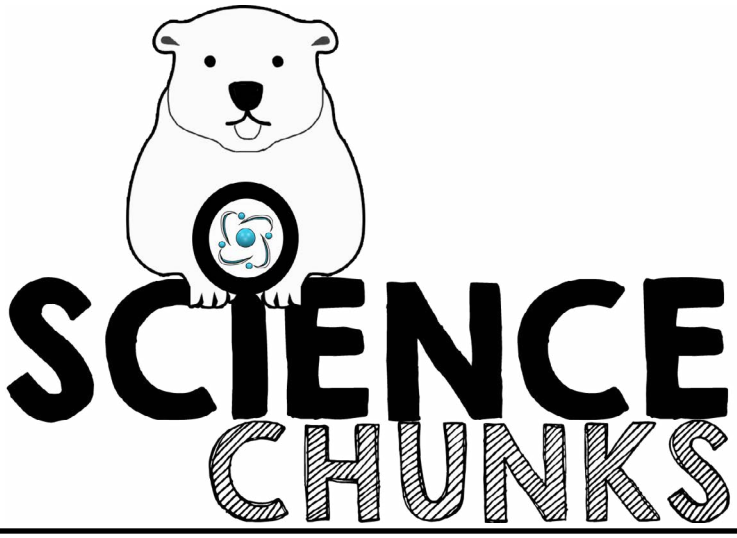


Instructions: Cut out along the solid lines and fold on the dashed lines.



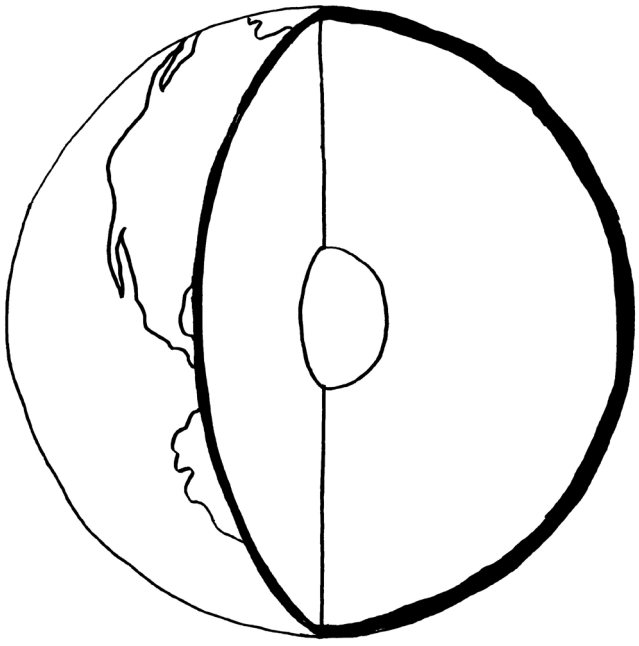
Instructions: Cut out along the outer solid lines, fold in half, and glue the two halves together so that the picture is on one side of the card and the definition is on the reverse.





Student Notebook Pages

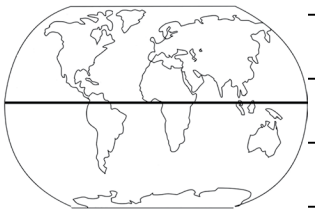
Inside the Earth



Planet Earth Vocabulary

Continent —

Equator —



Magma —

Mountain Range—