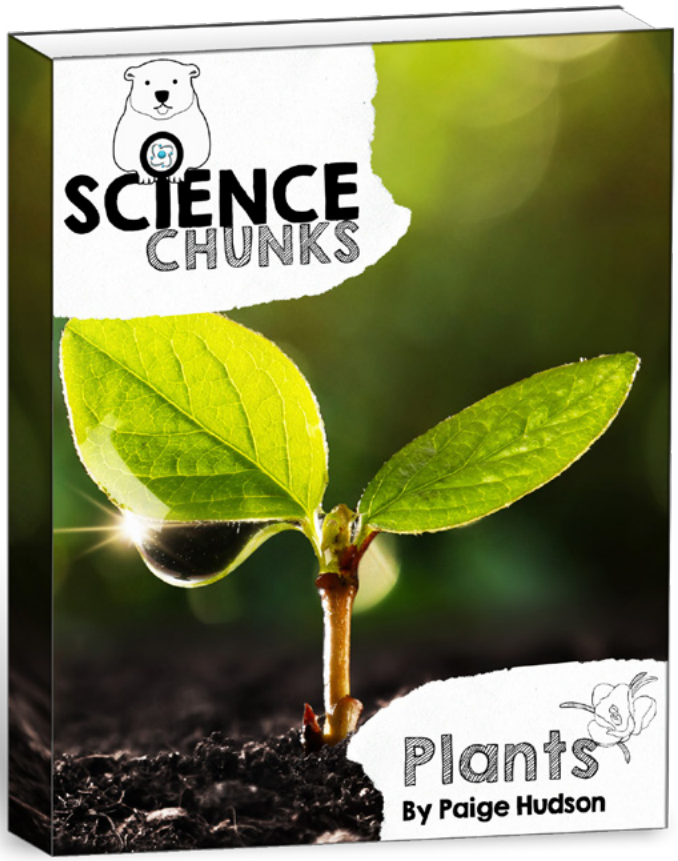


Science Chunks: Plants Sample Packet

Teach your students the basics about plants in bite-sized chunks. The following sample packet includes most of the first lesson of the *Science Chunks: Plants* 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-plants-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.

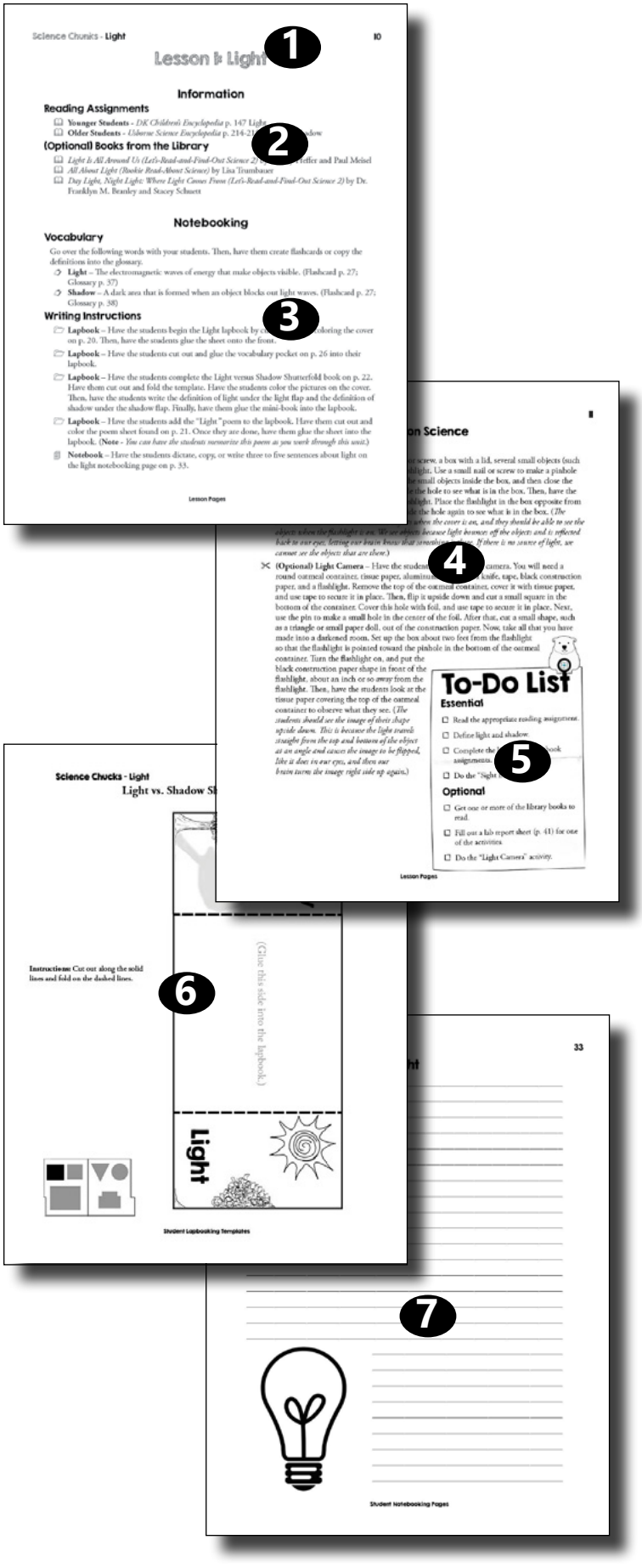
6. Lapbook Templates

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).



Unit Introduction

Science Chunks - Plants is a unique and versatile unit study that leads you through a survey of plants. 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 - Plants 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 I - 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 plants. In the notebook section, you will find all the pages you need to create a simple notebook on plants, 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. 50-51.

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 - *Basher Biology*
Older Students - *Usborne 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 six weeks to complete.

Final Thoughts

Read Further

If you would like to read more about 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 - Plants* by emailing us at support@elementalscience.com. I, or a memeber of our team, will be more than happy to answer them as soon as I am able. I hope that you will enjoy creating memories using *Science Chunks - Plants*!

~ 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

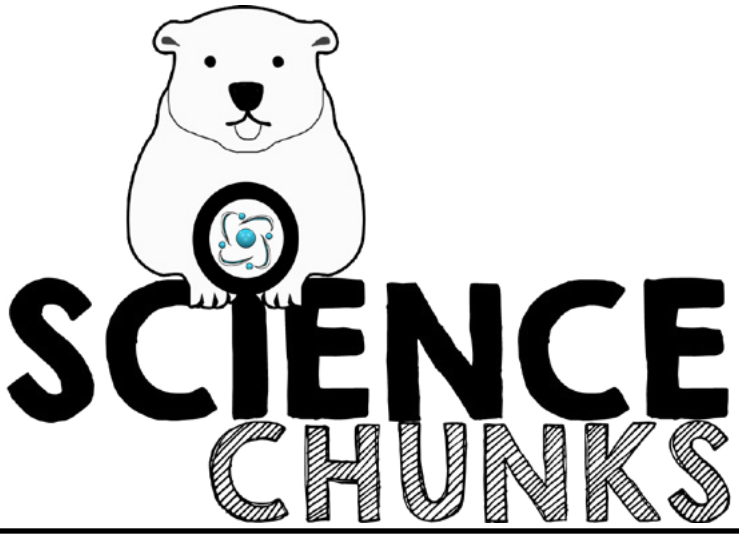
You will need the following materials to assemble the notebook:

- 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:** Several different kinds of leaves (*try to include pine needles in the collection*), paper, and a crayon
- **Lesson 2:** A lily or other flower with clearly visible parts
- **Lesson 3:** Several types of fruit
- **Lesson 4:** A pine cone that is tightly closed and an oven
- **Lesson 5:** Jell-O, green jelly beans, grapes, a banana slice, a small ziploc bag, and a small square plastic container
- **Lesson 6:** Paper towel, bean seed, and plastic bag



Lessons

Lesson 1: Leaves

Information

Reading Assignments

- 🕮 **Younger Students -** *Basher Biology* p. 114 Leaves, p. 112 Chlorophyll
- 🕮 **Older Students -** *Usborne Science Encyclopedia* p. 258-259 Leaves, p. 264 Plant Food

(Optional) Books from the Library

- 🕮 *Why Do Leaves Change Color? (Let's-Read-and-Find... Science, Stage 2)* by Betsy Maestro
- 🕮 *Leaves (Designs for Coloring)* by Ruth Heller
- 🕮 *Leaf Jumpers* by Carole Gerber
- 🕮 *Leaves* by David Ezra Stein
- 🕮 *Photosynthesis: Changing Sunlight Into Food (Nature's Changes)* by Bobbie Kalman

Notebooking

Vocabulary

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

- 🖉 **Leaf –** The part of the plant that makes the food for the plant. (Flashcard p. 35; Glossary p. 47)

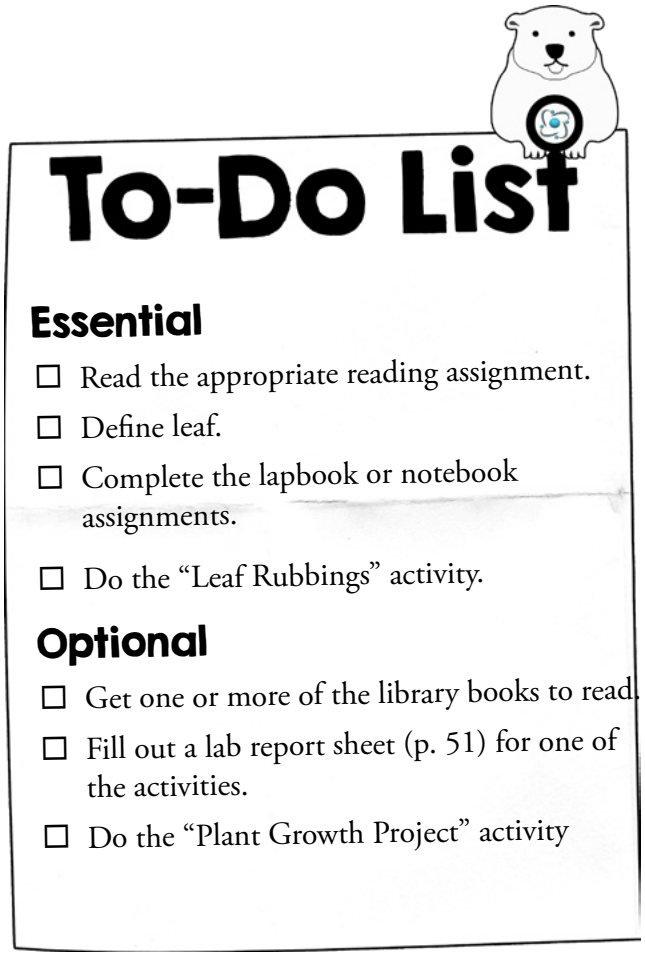
Writing Instructions

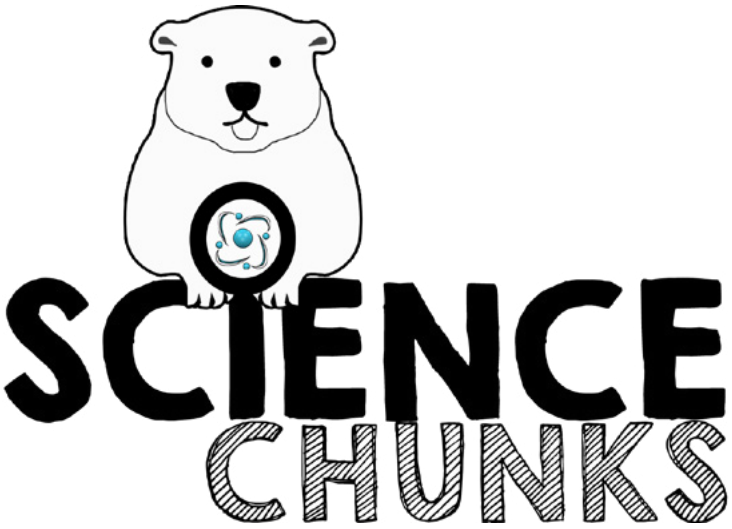
- 🗁 **Lapbook –** Have the students begin the Plants lapbook by cutting out and coloring the cover on p. 25. Then, have the students glue the sheet onto the front.
- 🗁 **Lapbook (multi-week) –** Have the students cut out and color the cover page for the Parts of a Plant tab-book on p. 26 and the Leaves page on p. 27. Ask the students what they have learned about leaves this week and then add their narration to the leaves page of the Parts of Plants tab-book. Have them color the pictures on the leaves sheet. Save these two pages for when they assembles the tab-book in lesson 6.
- 🗁 **Lapbook –** Have the students cut out and color the "Parts of a Plant" poem on p. 30. Once they have finished, have them glue the poem into the lapbook.
- 🗐 **Notebook –** Have the students dictate, copy, or write one to four sentences on what they have learned for leaves and photosynthesis on p. 41.

Hands-on Science

Coordinating Activity

- ✂ **Leaf Rubbings –** Have the students make a leaf rubbing booklet. Go on a nature walk and collect several different kinds of leaves – try to include pine needles in the collection. Once at home, use the samples to make a booklet of leaf rubbings. Begin this process by identifying the leaves you have collected. Then, place each leaf under a piece of paper and rub on the top of the same paper with a crayon until the shape of the leaf appears. Label the page with the type of leaf and set it aside. Once you have created a page for each of the leaves, bind the book together and create a cover.
- ✂ **(Optional) Plant Growth Project** – During this unit, you will record the growth of a bean plant. This week, begin this project by planting your seed. You will need dirt, a small pot, water, and a pinto bean seed. Fill the pot with dirt and gently press the bean seed just under the surface of the dirt. Water the pot well before placing it on a windowsill that receives direct sun light. Over the week, check your pot and water the plant when the soil is dry. At the end of your week, measure and record how much it has grown on the Plant Growth Record Chart on p. 52.

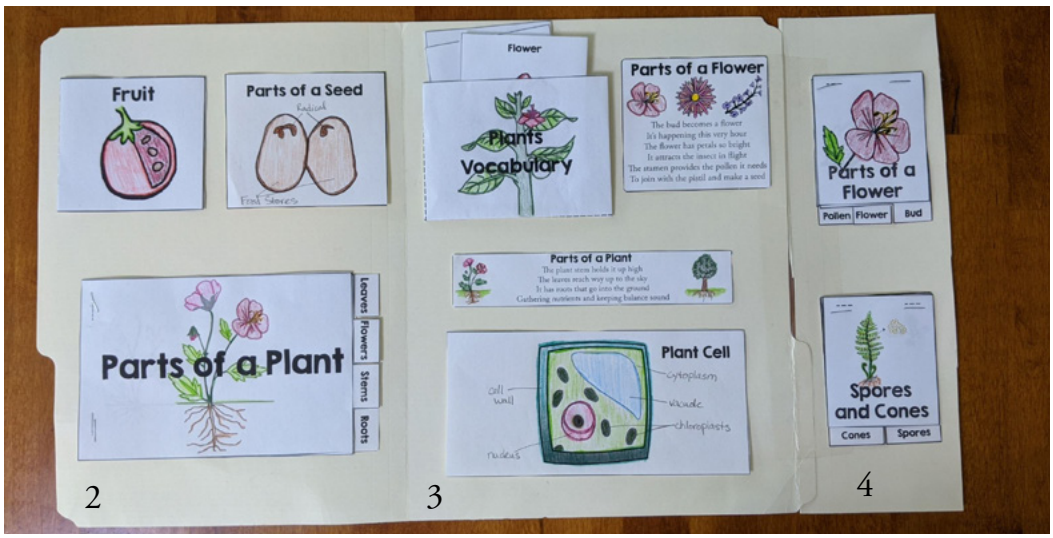




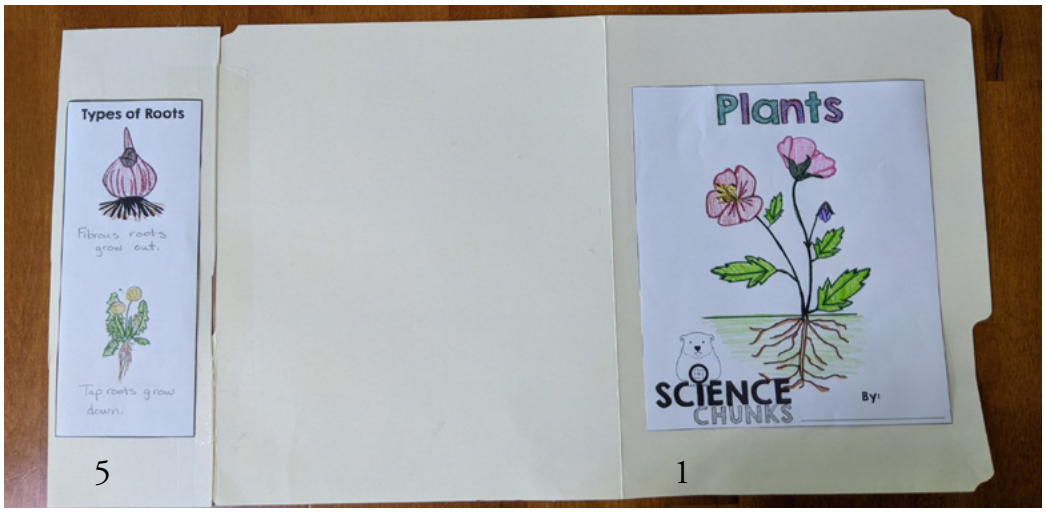
Student Lapbook Templates

Plants Lapbook

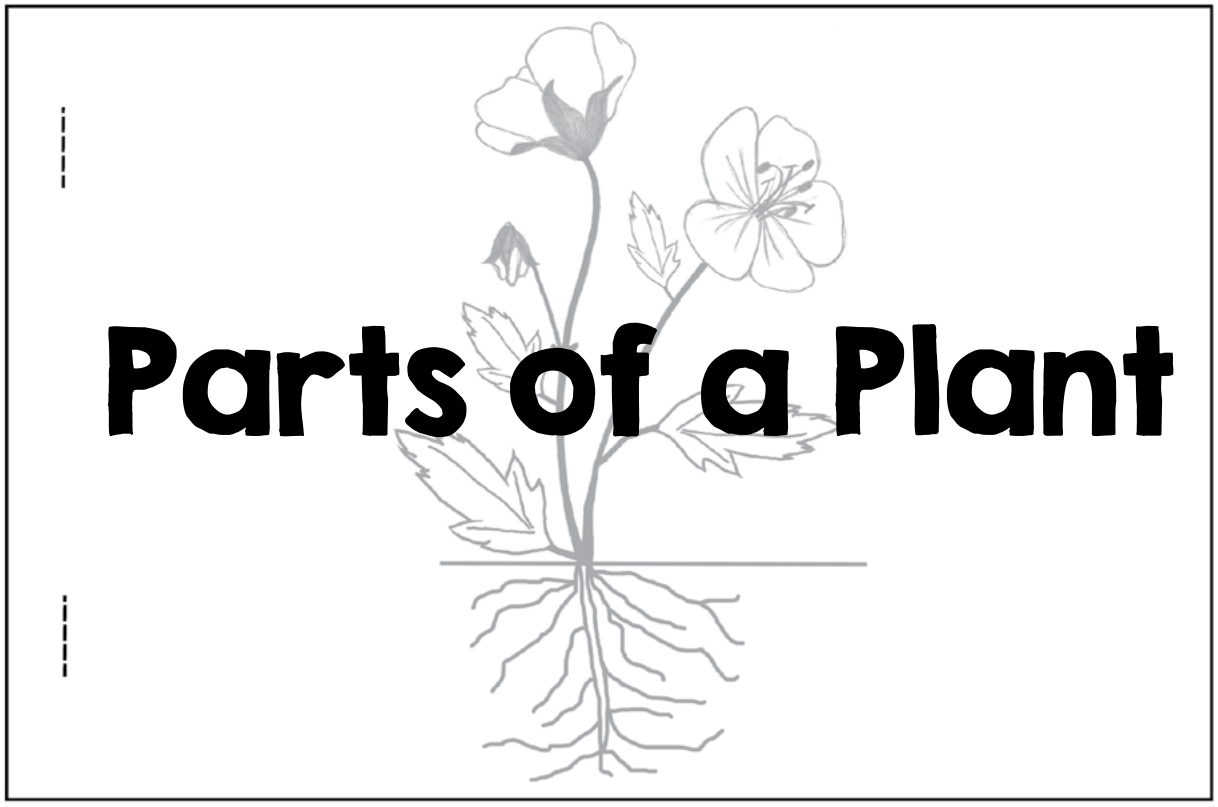
You will need three sheets of card stock or two file folders. If you are using card stock, begin by cutting one of the sheets in half lengthwise and then tape the sheets together on the longest edge. If you are using the file folders, cut one of the folders in half and then cut one of those halves in 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:



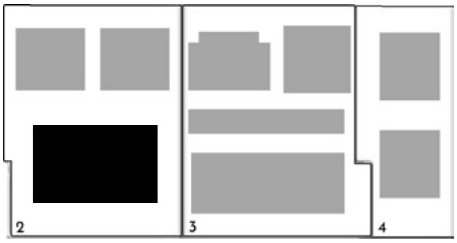
and the completed lapbook will look like this on the outside:

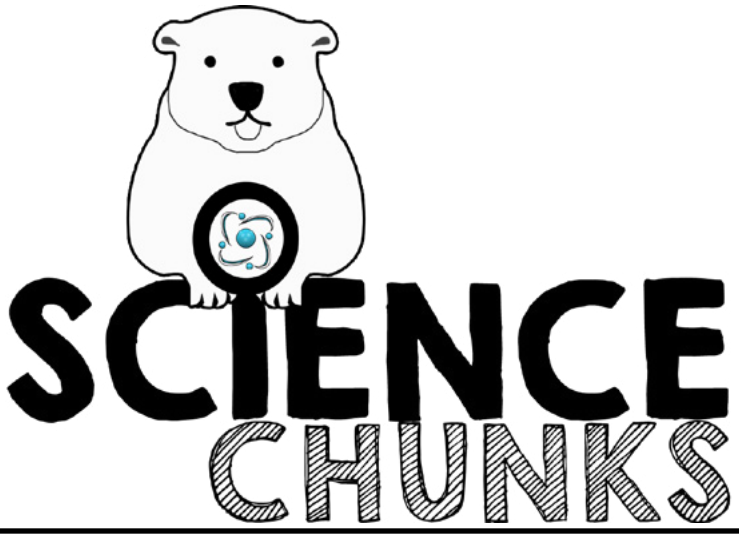


Parts of a Plant Tab-book



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

Leaves

Leaves

Photosynthesis

Plants Vocabulary

Bud —

Cone —

Flower —

Leaf —