Lapbooking Guide At-A-Glance

Overview

1. Lapbook Overview

See how to put together the location lapbook on the lapbook overview sheet, plus the supplies needed for the demonstrations.

Chapter Lessons

2. Read

Know what to read each week in the corresponding Sassafras Science novel. Plus, get options for additional encyclopedia pages to read and for books to check out from the library. The novel contains the essential information for each week, but if you want to dig deeper, we've got you covered!

3. Write

Build your students' science vocabulary with words relevant to the topics the students are studying. Plus, get the directions for the mini-books that your students will be making to correspond to each location.

4. Do

Know what materials you will need to do a weekly hands-on science activity that coordinates with the topic. This section lists the supplies you will need, provides easy-to-follow steps, and explanations to make it a snap to complete the scientific demonstration.

5. Two Lessons Per Location

Find two lessons per location, each following the same format of read, write, and do.

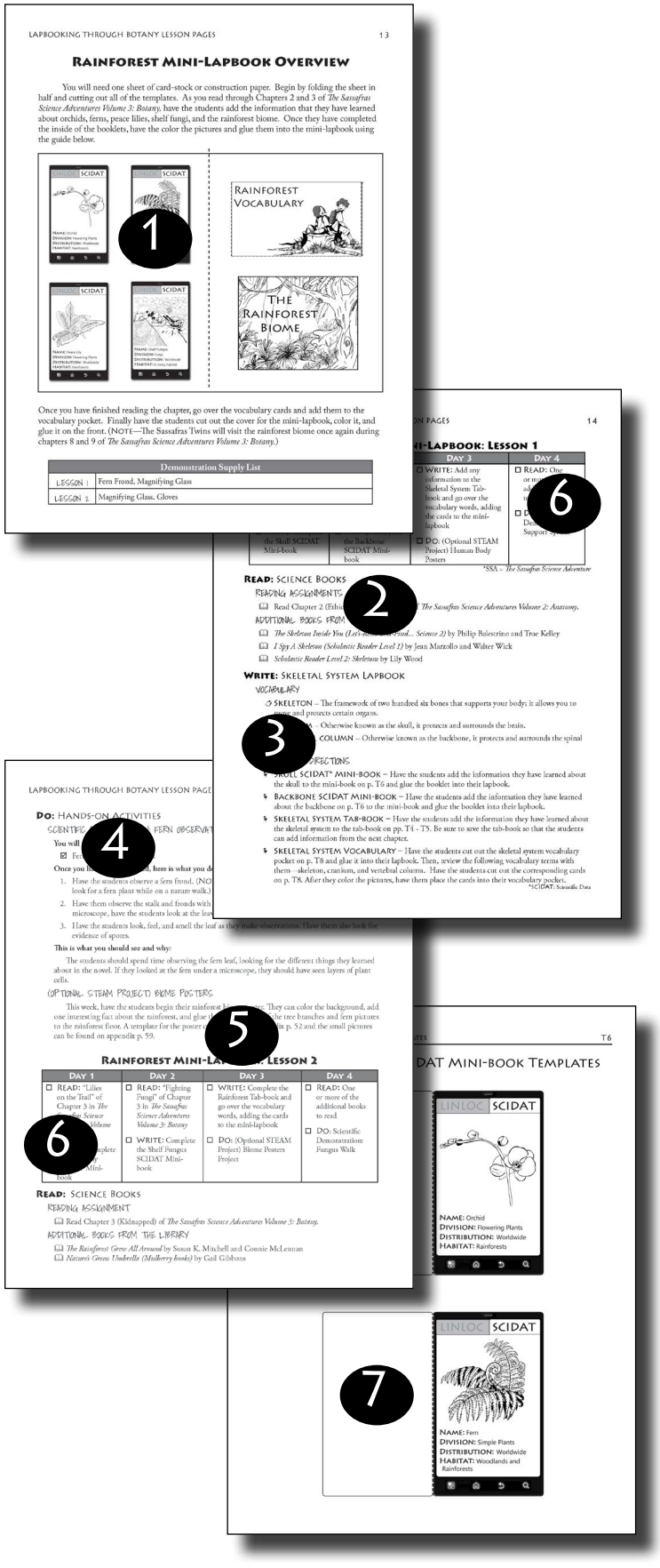
6. Optional Schedule

See how you could plan out each lesson over a week with the 4-day grid schedule. These schedules will make planning your weekly science adventure a snap!

The Rest

7. Templates and More

In the appendix, you will find project templates and a full glossary. At the back of this guide, you will find all of the mini-book templates for the lapbooks.



Lapbooking through Botany

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For more copies write to :
Elemental Science
PO Box 79
Niceville, FL 32588
support@elementalscience.com

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Quick Start Guide

Welcome to your super, scientific journey with the Sassafras Twins!! The information and activities in this guide will help you turn a simple adventure novel into a simple science program for your early elementary students. Let's start by answering three pressing questions!

What will we learn?

Students will learn about botany, which is the study of plants. See p. 9 for a list of the topics explored in this program.

What do I need?

In addition to this lapbooking guide, you will need the following materials:

1. **Novel –** All the main reading assignments are from *The Sassafras Science Adventures Volume 3: Botany*. You can get the paperback novel, the Kindle version, or the audiobook.
2. **Demonstration Supplies –** See a full list on p. 10, or save yourself time and purchase the *Sassafras Science Year 2 Experiment Kit*, which includes the materials for both volume 3 and volume 4.

What will a week look like?

Each week you and your students will do the following activities:

- **Read** scientific information from an adventure-filled novel, also known as a living book, and discuss what you read.
- **Write** down what the students have learned on the journey in the coordinating mini-book.
- **Do** hands-on science through demonstrations using the directions found in this guide.

For a more detailed explanation of the components in each lesson, we highly recommend checking out the peek inside this guide on p. 6 and reading the introduction on pp. 7-9. The chapter lessons begin on p. 11.

THE SASSAFRAS SCIENCE ADVENTURES

As the author and publisher of *Lapbooking through the Botany with the Sassafras Twins,* I encourage you to contact me with any questions or problems that you might have concerning this program at support@elementalscience.com. I, or a member of our team, will be more than happy to assist you. I hope that you will enjoy creating memories using *Lapbooking through the Botany with the Sassafras Twins*!

~ Paige Hudson

Lapbooking through Botany
Table of Contents

Introduction

Lapbooking through the Botany with the Sassafras Twins is a unique and versatile program that leads you through a survey of plants using a series of eight mini-lapbooks to document the journey. The program is centered around the living book, *The Sassafras Science Adventures Volume 3: Botany*. 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 and Paige Hudson.

What is a lapbook?

Lapbooks are educational scrapbooks that fit into the lap of a students. 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. To learn more about lapbooking, you can read the following articles:

- **What are lapbooks? –** This article shares what lapbooks are and how you can use them.
  - https://elementalscience.com/blogs/news/what-are-lapbooks
- **3 Common Misconceptions about Lapbooks –** This article looks at three of the most common mistaken beliefs about lapbooks.
  - https://elementalscience.com/blogs/news/3-misconceptions-about-lapbooks

What is included in this program?

Lapbooking through Botany with the Sassafras Twins includes all of the basic components of elementary science education that are explained in *Success in Science*.

1. **{Read}** Science Books – Elementary students are an empty bucket waiting to be filled with information and science 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 are from the living book, *The Sassafras Science Adventures Volume 3: Botany*. I have also included a list of additional books from the library.
2. **{Write}** Lapbooks – The purpose of the written 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 series of mini-lapbooks as well as vocabulary words to coordinate with each lesson.
3. **{Do}** Hands-on Activities – Scientific demonstrations, observations, and STEAM* projects 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.

Each lesson in this guide includes suggested hands-on science activities to fulfill this section of elementary science instruction.

*STEAM: Science, Technology, Engineering, Art, and Math

These concepts are more fully developed in our book, or you can read the following articles from to learn more:

- **10 Posts you must read about living books –** This article shares links to 10 different articles that will help you to gain a clear picture of what living books are.
  - https://elementalscience.com/blogs/news/10-posts-you-must-read-about-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.
  - https://elementalscience.com/blogs/news/what-is-notebooking
- **Scientific Demonstrations vs. Experiments –** This article explains the difference between scientific demonstrations and experiments along with when and how to employ these methods.
  - http://elementalscience.com/blogs/news/89905795-scientific-demonstrations-or-experiments

HOW TO USE THIS PROGRAM

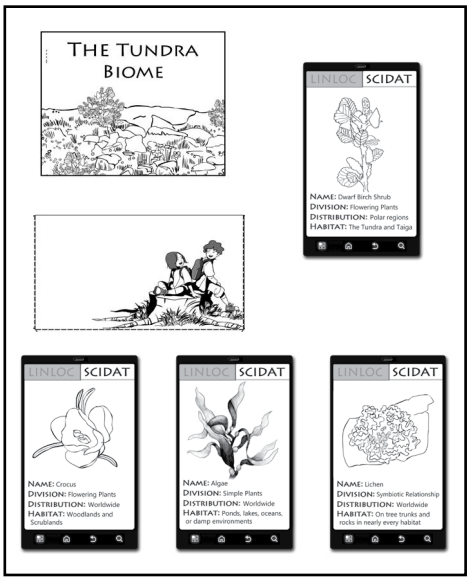
Each lesson is designed to be completed over several days or up to one week. The lesson contains reading assignment from *The Sassafras Science Adventures Volume 3: Botany*. You can choose to break each chapter up over two days or read it all at once. Since this program is geared towards younger students, you should plan to read the selected chapters to them. (NOTE—Chapter 1 and 18 of *The Sassafras Science Adventures Volume 3: Botany* are not scheduled as a part of this program. You will need to read chapter 1 before beginning and chapter 18 after you finish.)

After completing the reading assignment, have the students tell you what they have learned about the animals and habitat 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 the words into the mini-book. Once the students have finished writing, have them color the related pictures. When the mini-book is complete, glue it into the lapbook using the overview sheet as a guide.

At another time during the week, review the vocabulary words with the students. You can have them memorize each one or just go over the words with the lesson. I have included a set of blank vocabulary cards in the Appendix on pp. 62-65. If you use the blank vocabulary cards, have the students look up the vocabulary words in the science encyclopedia of your choice or the glossary included in the Appendix on pp. 66-67.

Finally, you can finish the lesson by doing the related scientific demonstration. If you would like to have your students write a lab report, I have included a template for you in the Appendix on pp. 49-50. After you finishing the demonstration, you can finish the week by reading to the students one of the related books from the additional book list. If you would like to record what they have learned from these books, I have included a book narration sheet in the Appendix on p. 51.

How long it should take



I have included possible schedules for completed each mini-lapbook. These schedules spread the work for each lesson out over 4 days. If you choose to complete the program in this manner, each mini-lapbook will take you two weeks to complete, which means that this program will provide you about a semesters worth of material.

Options - 8 mini-lapbooks or 1 full lapbook

If you would like to create one full lapbook instead of a series of eight mini-lapbooks, simply arrange the interior components of each onto one full sheet of construction paper or one side of a file folder like below. We have included a cover for a full lapbook in the Appendix on p. 48. See a sample of a full lapbook in the following video:

https://www.youtube.com/watch?v=4LMhkVcXYfk&t=3s

Topical List

The Sassafras Science Adventures Volume 3: Botany covers a variety of aspects of botany, such as:

- Biomes
- Habitats
- Types of Plants
- Basic Mapping Skills

In the process, you will learn about the following specific topics:

- Orchid
- Fern
- Peace Lily
- Shelf Fungus
- Rose
- Boxwood
- Moss
- Grass
- Wildflower
- Ombú Tree
- Palm Tree
- Pitcher Plant
- Mold
- Giant Rafflesia
- Dwarf Birch Shrub
- Crocus
- Lichen
- Algae
- Plant Cell
- Photosynthesis
- Chestnut Tree
- Apple Tree
- Sitka Tree
- Cones
- Redwood Tree
- Fly Agaric Mushroom
- Joshua Tree
- Barrel Cactus
- Creosote Bush
- Paddle Cactus

Supply List

The following supplies will be needed to complete the scientific demonstrations suggested in this guide.

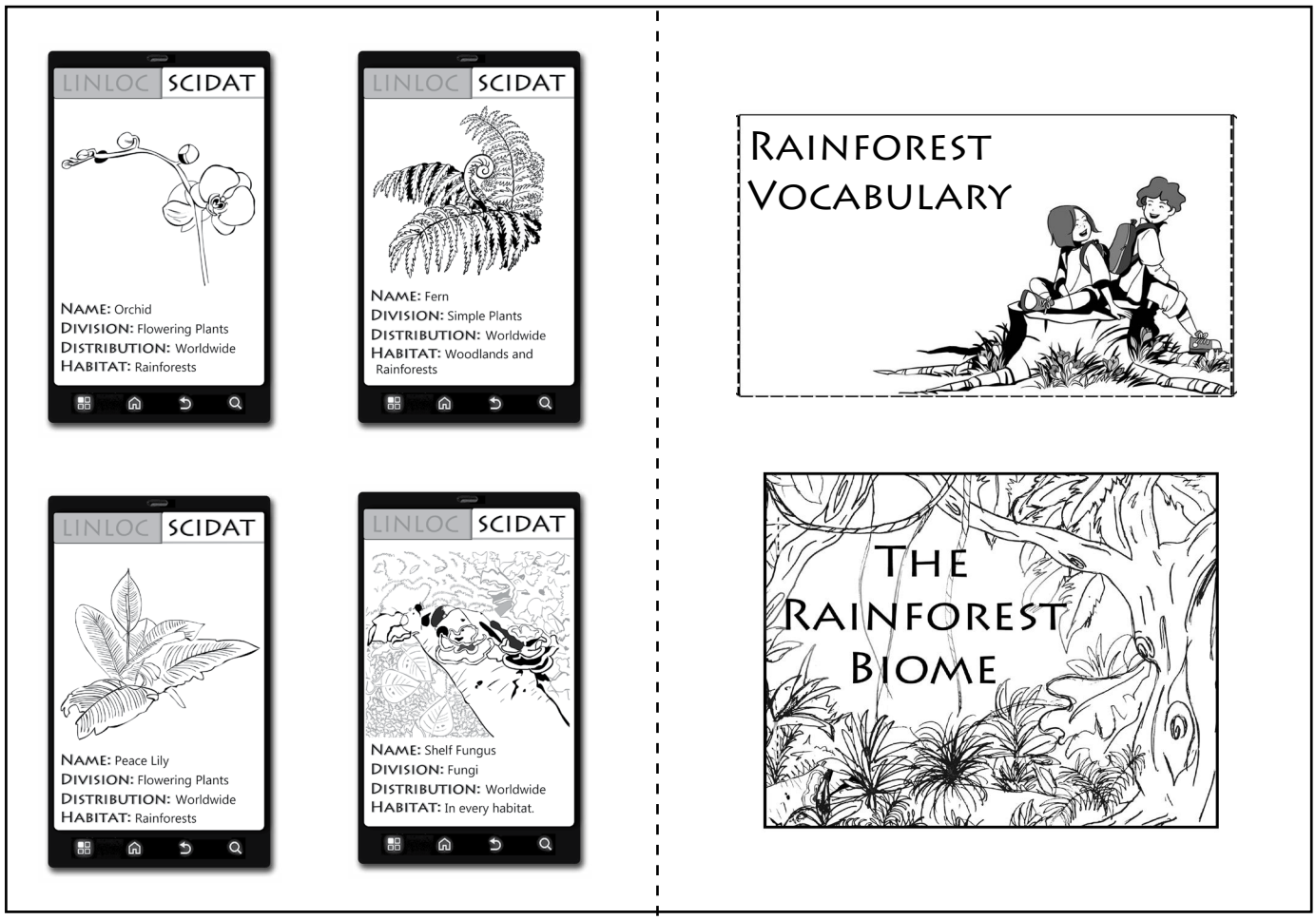
Chapter	Supplies Needed
2: Fern Observation	Fern Frond, Magnifying Glass
3: Fungus Walk	Magnifying Glass, Gloves
4: Rose Dissection	Rose, Magnifying glass, Knife
5: Moss Hunt	Magnifying glass, Putty knife
6: Erosion Prevention	Dirt, A 2" by 2" square of sod, 2 Aluminum pans, Water
7: Seed Investigation	Several pieces of fruit, Knife, Magnifying glass
8: Insect Trap	Cup, Apple cider vinegar, Liquid dish soap
9: Growing Mold	Ripe piece of fruit, Plastic container with a lid
10: Bulb Dissection	Bulb, Knife, Magnifying glass
11: Lichen Hunt	Magnifying glass, Putty knife
12: Model Plant Cell	Jell-O, Green jelly beans, Grapes, A banana slice, A small Ziploc bag, A small square plastic container
13: Leaf Change	Paper clips, Foil, Small house plant
14: Inside the Cone	Pine cone (tightly closed), Magnifying glass
15: Mushroom Hunt	Magnifying glass, Plastic spoon
16: Cactus Shadow	Sponge, Flashlight, 10 Toothpicks, Shallow dish
17: Waxy Leaves	Construction paper, Crayon, 2 Straws, 2 Coffee stirrers, Tape, Shallow dish, Modeling clay, Board, Permanent marker

*Note—There are no suggested activities for chapters 1 and 18 in the lapbooking guide.

Lesson Pages

Rainforest Mini-Lapbook Overview

You will need one sheet of card-stock or construction paper. Begin by folding the sheet in half and cutting out all of the templates. As you read through Chapters 2 and 3 of *The Sassafras Science Adventures Volume 3: Botany,* have the students add the information that they have learned about orchids, ferns, peace lilies, shelf fungi, and the rainforest biome. Once they have completed the inside of the booklets, have the color the pictures and glue them into the mini-lapbook using the guide below.



Once you have finished reading the chapter, go over the vocabulary cards and add them to the vocabulary pocket. Finally have the students cut out the cover for the mini-lapbook, color it, and glue it on the front. (NOTE—The Sassafras Twins will visit the rainforest biome once again during chapters 8 and 9 of *The Sassafras Science Adventures Volume 3: Botany.*)

Demonstration Supply List	
LESSON 1	Fern Frond, Magnifying Glass
LESSON 2	Magnifying Glass, Gloves

Rainforest Mini-Lapbook: Lesson 1

Day 1	Day 2	Day 3	Day 4
☐ Read: "Falling Orchids" of Chapter 2 in *The Sassafras Science Adventures Volume 3: Botany* ☐ Write: Complete the Orchid SCIDAT Mini-book	☐ Read: "Fishing for Ferns" of Chapter 2 in *The Sassafras Science Adventures Volume 3: Botany* ☐ Write: Complete the Fern SCIDAT Mini-book	☐ Write: Add any information to the Rainforest Tab-book and go over the vocabulary words, adding the cards to the mini-lapbook ☐ Do: (Optional STEAM Project) Biome Posters Project	☐ Read: One or more of the additional books to read ☐ Do: Scientific Demonstration: Fern Observation

*SSA = *The Sassafras Science Adventures*

Read: Science Books

Reading Assignment

📖 Read Chapter 2 (Return to the Jungle) of *The Sassafras Science Adventures Volume 3: Botany*.

Additional Books from the Library

📖 *Orchids (Let's Investigate. Plants)* by Derek Fell

📖 *The Great Kapok Tree: A Tale of the Amazon Rainforest* by Lynne Cherry

📖 *A Rainforest Habitat (Introducing Habitats)* by Molly Aloian and Bobby Kalman

Write: Rainforest Lapbook

Vocabulary

- Epiphyte – A plant, such as a moss or an orchid, that can sprout and grow on the branches of a tree.
- Spore – A microscopic package of cells produced by a fungus or plant; it can grow into a new individual.

Mini-Lapbook Directions

- Orchid SCIDAT* Mini-book – Have the students add the information they have learned about the orchid on p. T6 to the mini-book and glue the booklet into their lapbook.
- Fern SCIDAT Mini-book – Have the students add the information they have learned about the fern to the mini-book on p. T6 and glue the booklet into their lapbook.
- Rainforest Biome Tab-book – Have the students add the information they have learned about the rainforest to the tab-book on pp. T4 - T5. Be sure to save the tab-book so that the students can add information from the next chapter.
- Rainforest Vocabulary – Have the students cut out the rainforest biome vocabulary pocket on p. T8 and glue it into their lapbook. Then, review the following vocabulary terms with them—epiphyte and spore. Have the students cut out the corresponding cards on p. T8. After they color the pictures, have them place the cards into their vocabulary pocket.

*SCIDAT: Scientific Data

Do: Hands-on Activities

Scientific Demonstration: Fern Observation

You will need the following:

☑ Fern leaf, Magnifying glass

Once you have what you need, here is what you do:

1. Have the students observe a fern frond. (Note—You can purchase one from the local florist or look for a fern plant while on a nature walk.)
2. Have them observe the stalk and fronds with and without a magnifying glass. If you have access to a microscope, have the students look at the leaves up close.
3. Have the students look, feel, and smell the leaf as they make observations. Have them also look for evidence of spores.

This is what you should see and why:

The students should spend time observing the fern leaf, looking for the different things they learned about in the novel. If they looked at the fern under a microscope, they should have seen layers of plant cells.

(Optional STEAM Project) Biome Posters

This week, have the students begin their rainforest biome poster. They can color the background, add one interesting fact about the rainforest, and glue the orchid to one of the tree branches and fern pictures to the rainforest floor. A template for the poster can be found on appendix p. 52 and the small pictures can be found on appendix p. 59.

Rainforest Mini-Lapbook: Lesson 2

Day 1	Day 2	Day 3	Day 4
☐ Read: "Lilies on the Trail" of Chapter 3 in *The Sassafras Science Adventures Volume 3: Botany* ☐ Write: Complete the Peace Lily SCIDAT Mini-book	☐ Read: "Fighting Fungi" of Chapter 3 in *The Sassafras Science Adventures Volume 3: Botany* ☐ Write: Complete the Shelf Fungus SCIDAT Mini-book	☐ Write: Complete the Rainforest Tab-book and go over the vocabulary words, adding the cards to the mini-lapbook ☐ Do: (Optional STEAM Project) Biome Posters Project	☐ Read: One or more of the additional books to read ☐ Do: Scientific Demonstration: Fungus Walk

Read: Science Books

Reading Assignment

🕮 Read Chapter 3 (Kidnapped) of *The Sassafras Science Adventures Volume 3: Botany*.

Additional Books from the Library

🕮 *The Rainforest Grew All Around* by Susan K. Mitchell and Connie McLennan
🕮 *Nature's Green Umbrella (Mulberry books)* by Gail Gibbons

📖 *Fungi (Kid's Guide to the Classification of Living Things)* by Elaine Pascoe and Dwight Kuhn

WRITE: Rainforest Lapbook

Vocabulary

- **Fungus** – A living thing that absorbs food from living or dead matter.

Mini-lapbook directions

- **Rainforest Biome Tab-book** – Have the students add the information they have learned about the rainforest biome to the tab-book on pp. T4 - T5. Then, staple the pages together and glue the tab-book into their mini-lapbook. (See appendix p. 68 for answers for the "map" tab.)
- **Peace Lily SCIDAT Mini-book** – Have the students add the information they have learned about the peace lily to the mini-book on p. T7 and glue the booklet into their lapbook.
- **Shelf Fungus SCIDAT Mini-book** – Have the students add the information they have learned about shelf fungus on p. T7 to the mini-book and glue the booklet into their lapbook.
- **Rainforest Vocabulary** – Review the following vocabulary term with them—fungus. Have the students cut out the corresponding card on p. T8. After they color the pictures, have them place the card into their vocabulary pocket.
- **Rainforest Biome Mini-lapbook Cover** – Have the students cut out the cover page on p. T3, color it, and glue it on the front of their mini-lapbook.

DO: Hands-on Activities

Scientific demonstration: Fungus walk

You will need the following:

☑ Magnifying glass, Gloves

Once you have what you need, here is what you do:

1. Have the students take a walk in your local woods to look for examples of fungi. Be sure to check fallen logs for signs of fungi.
2. Have them observe the fruiting body with and without a magnifying glass. If you know that the fungus is non-toxic, have them touch and smell it. NEVER touch a fungus that you are not familiar with.
3. If you find a shelf or bracket fungus, have the students put on their gloves and break off the fruiting body or dig around it to see if they can view any of the threads hidden within the fungus's home.
4. Have the students examine the fruiting body closer to look for the pores through which the spores are released.

This is what you should see and why:

The students should spend time observing the fungus that they find. Be sure to remind them that what we see of the fungus is only a small portion of the living organism. (**Note**—You will be studying mushrooms as a part of Coastal Forest Mini-lapbook.)

(Optional STEAM project) Biome posters

This week, have the students add the peace lily shrub layer sitting on the forest floor and shelf fungus one of the rotting logs in their rainforest biome sheet. The small pictures can be found on appendix p. 59.

Templates

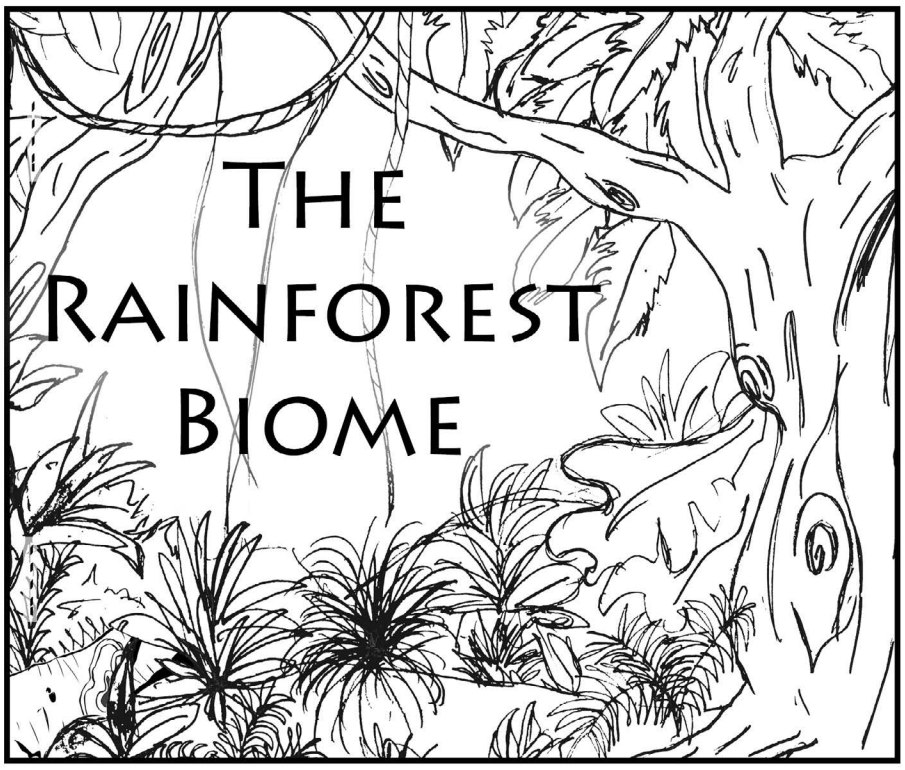
Rainforest Mini-Lapbook Cover

My Guide to the Rainforest

By: _____

& The Sassafras Twins

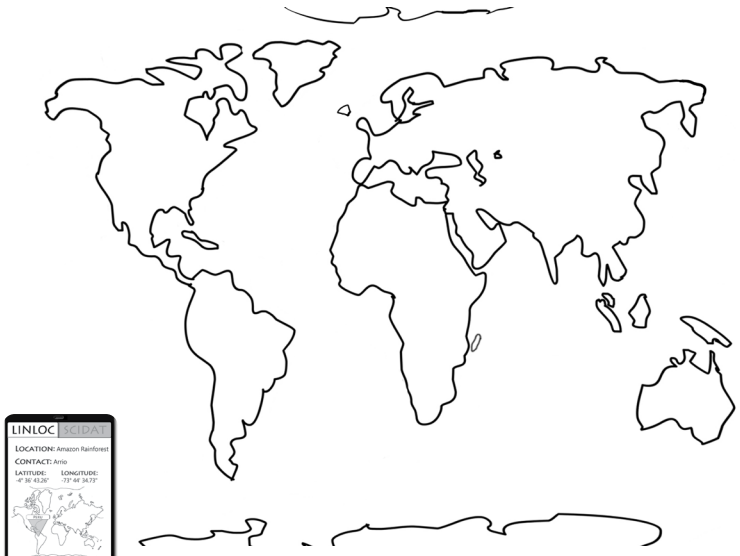
Rainforest Biome Tab-book Templates



Rainforest Biome Tab-book Templates

Interesting Facts About the Rainforest Biome

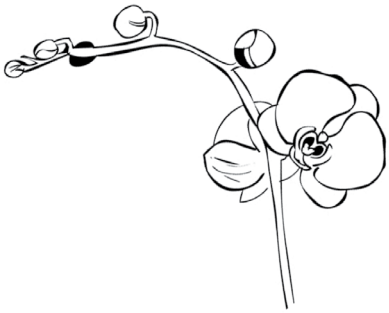
Facts



Map

Rainforest Biome SCIDAT Mini-book Templates

LINLOC SCIDAT



Name: Orchid
Division: Flowering Plants
Distribution: Worldwide
Habitat: Rainforests

LINLOC SCIDAT

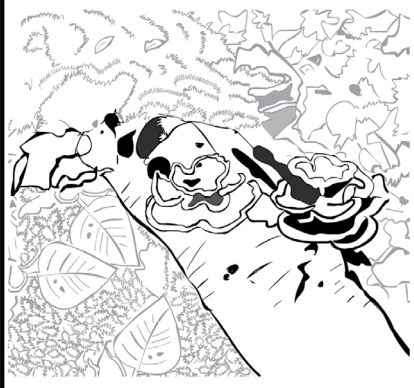
Name: Fern
Division: Simple Plants
Distribution: Worldwide
Habitat: Woodlands and Rainforests

Rainforest Biome SCIDAT Mini-book Templates

LINLOC SCIDAT

Name: Peace Lily
Division: Flowering Plants
Distribution: Worldwide
Habitat: Rainforests

LINLOC SCIDAT



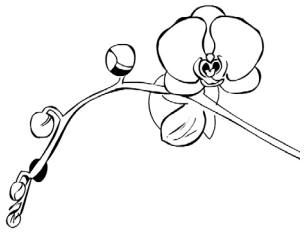
Name: Shelf Fungus
Division: Fungi
Distribution: Worldwide
Habitat: In every habitat.

Rainforest Vocabulary

Glue this flap into your lapbook.

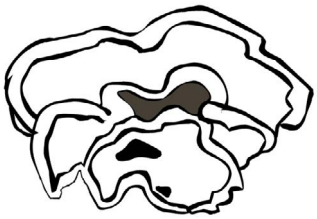
Glue this flap into your lapbook.

Glue this flap into your lapbook.



Epiphyte – A plant, such as a moss or an orchid, that can sprout and grow on the branches of a tree.

Spore – A microscopic package of cells produced by a fungus or plant; it can grow into a new individual.



Fungus – A living thing that absorbs food from living or dead matter.