

LAPBOOKING GUIDE AT-A-GLANCE

6

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.

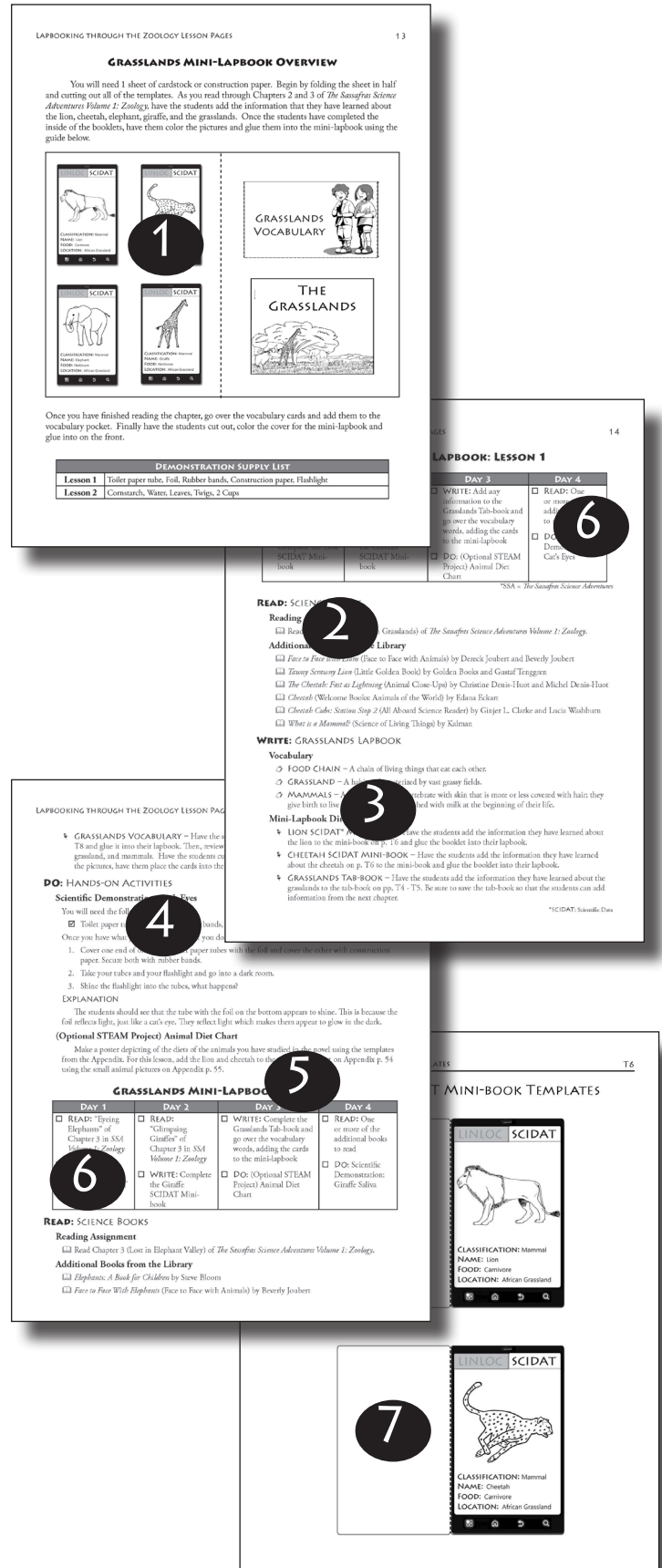
6. OPTIONAL SCHEDULE

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.



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 zoology, which is the study of animals. 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 1: Zoology*. 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 1 Experiment Kit*, which includes the materials for both volume 1 and volume 2.

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 Zoology 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 Zoology with the Sassafras Twins*!

~ Paige Hudson

LAPBOOKING THROUGH ZOOLOGY

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Ocean Lapbooking Templates	T45-T50

INTRODUCTION

Lapbooking through the Zoology with the Sassafras Twins is a unique and versatile program that leads you through a survey of animals using a series of eight mini-lapbooks to document the journey. The program is centered around the living book, *The Sassafras Science Adventures Volume 1: Zoology*. 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 Zoology 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 1: Zoology*. 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 1: Zoology*. 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 1: Zoology* 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. 56-58. 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. 59-60.

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. 47-48. 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. 49.

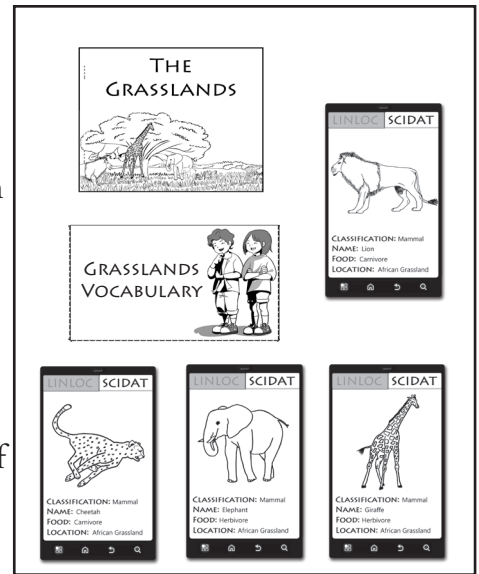
HOW LONG IT SHOULD TAKE

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. 46. See a sample of a full lapbook in the following video:

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



TOPICS COVERED

The Sassafras Science Adventures Volume 1: Zoology covers a variety of aspects of zoology, such as:

- Habitats
- Classification
- Animal Diet
- Life Cycles (Frog and Butterfly)
- Vertebrates and Invertebrates
- Migration
- Basic Mapping Skills
- Animal Defenses

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

- Lion
- Cheetah
- Elephant
- Giraffe
- Camel
- Cobra
- Spiny-tailed Lizard
- Fennec Fox
- Cow
- Bee
- Chicken
- Spider
- Sloth
- Toucan
- Poison Dart Frog
- Blue Morpho Butterfly
- Koala
- Rabbit
- Panda
- Golden Eagle
- Powerful Owl
- Sambar Deer
- Golden-haired Monkey
- Mice
- Musk Ox
- Snow Goose
- Polar Bear
- Mountain Goat
- Penguin
- Codfish
- Blue Whale
- Squid

SUPPLY LIST

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

CHAPTER	SUPPLIES NEEDED
2: CAT'S EYES	Toilet paper tube, Foil, Rubber bands, Construction paper, Flashlight
3: GIRAFFE SALIVA	Cornstarch, Water, Leaves and twigs, 2 Cups
4: REPTILE EGG	Clear glass, Vinegar, Egg, Plastic wrap, Rubber band
5: EAR COOLING	Hot water, 1 Coffee cup, 1 8"x10" Pan, Instant thermometer
6: MAKING BUTTER	1 Pint of cream, 1 Large glass jar with lid, ½ Cup of water
7: INSECT HUNT	A piece of fruit, Honey or syrup, Plate
8: RAINFOREST IN A BOTTLE	2-Liter Soda bottle with top, Gravel, Potting soil, Several small plants, Scissors, Tape, Water
9: EXAMINING LIFE CYCLES	Life Cycle of a Butterfly Worksheet and Life Cycle of a Frog Worksheet (Appendix pp. 50-53)
10: POUCH LIVING	2 Thermometers, Large felt rectangle, Tape, Plastic baggie (sealable), Warm water
11: BIRD BEAKS	Chopsticks, Tweezers, Pliers, Eye dropper, Sugar water or honey, Gummy worms, Unshelled peanuts, Seeds, Raisins, Plate
12: OWL PELLETS	Owl Pellet Dissection Kit (Order this from a science supply store.)
13: PRIMATE EYES	No supplies needed
14: Hairy Fur	2 Glass jars, Box at least 2 inches wider and taller than the jars, Cotton balls, 2 Thermometers
15: BLUBBER	1 Large plastic bag, Rubber band, Plastic glove, Shortening, Tub of ice water, Stopwatch
16: FISH GILLS	Old Barbie or pony doll with hair, Tub of water
17: ZOOLOGY BINGO	Zoology Bingo from Elemental Science

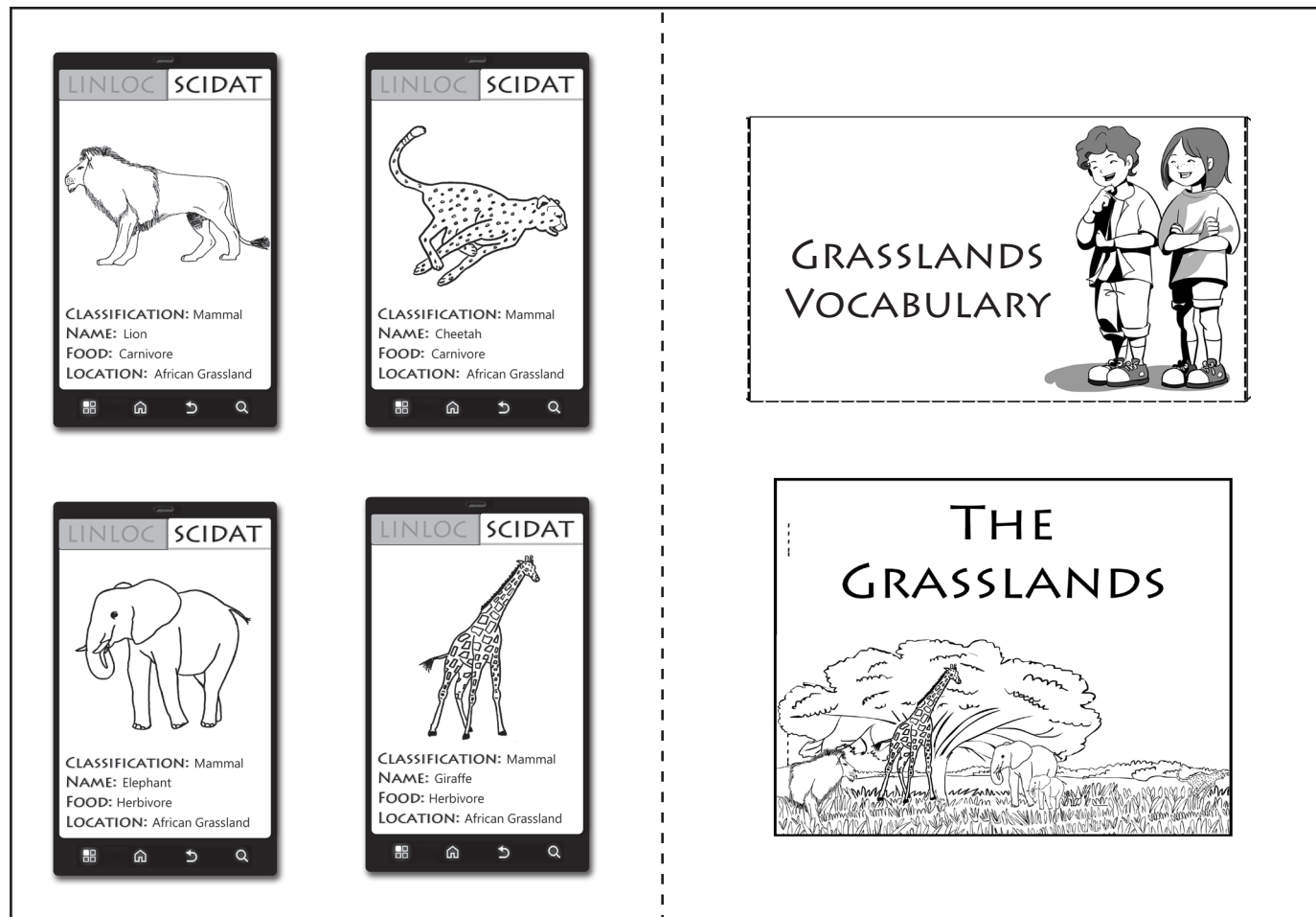
*NOTE—There are no suggested activities for chapters 1 and 18 in the lapbooking guide.



LESSON PAGES

GRASSLANDS MINI-LAPBOOK OVERVIEW

You will need 1 sheet of cardstock 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 1: Zoology*, have the students add the information that they have learned about the lion, cheetah, elephant, giraffe, and the grasslands. Once the students have completed the inside of the booklets, have them 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, color the cover for the mini-lapbook and glue into on the front.

DEMONSTRATION SUPPLY LIST	
LESSON 1	Toilet paper tube, Foil, Rubber bands, Construction paper, Flashlight
LESSON 2	Cornstarch, Water, Leaves, Twigs, 2 Cups

GRASSLANDS MINI-LAPBOOK: LESSON 1

DAY 1	DAY 2	DAY 3	DAY 4
<input type="checkbox"/> READ: “Look... a Lion” of Chapter 2 in <i>SSA Volume 1: Zoology</i> <input type="checkbox"/> WRITE: Complete the Lion SCIDAT Mini-book	<input type="checkbox"/> READ: “Chasing Cheetahs” of Chapter 2 in <i>SSA Volume 1: Zoology</i> <input type="checkbox"/> WRITE: Complete the Cheetah SCIDAT Mini-book	<input type="checkbox"/> WRITE: Add any information to the Grasslands Tab-book and go over the vocabulary words, adding the cards to the mini-lapbook <input type="checkbox"/> DO: (Optional STEAM Project) Animal Diet Chart	<input type="checkbox"/> READ: One or more of the additional books to read <input type="checkbox"/> DO: Scientific Demonstration: Cat’s Eyes







*SSA = *The Sassafras Science Adventures*

READ: SCIENCE BOOKS

READING ASSIGNMENT




 Read Chapter 2 (The African Grasslands) of *The Sassafras Science Adventures Volume 1: Zoology*.

ADDITIONAL BOOKS FROM THE LIBRARY




-  *Face to Face with Lions* (Face to Face with Animals) by Dereck Joubert and Beverly Joubert
-  *Tawny Scrawny Lion* (Little Golden Book) by Golden Books and Gustaf Tenggren
-  *The Cheetah: Fast as Lightning* (Animal Close-Ups) by Christine Denis-Huot and Michel Denis-Huot
-  *Cheetah* (Welcome Books: Animals of the World) by Edana Eckart
-  *Cheetah Cubs: Station Stop 2* (All Aboard Science Reader) by Ginjer L. Clarke and Lucia Washburn
-  *What is a Mammal?* (Science of Living Things) by Kalman

WRITE: GRASSLANDS LAPBOOK

VOCABULARY

-  **FOOD CHAIN** – A chain of living things that eat each other.
-  **GRASSLAND** – A habitat characterized by vast grassy fields.
-  **MAMMALS** – Any warm-blooded vertebrate with skin that is more or less covered with hair; they give birth to live young which are nourished with milk at the beginning of their life.

MINI-LAPBOOK DIRECTIONS

-  **LION SCIDAT* MINI-BOOK** – Have the students add the information they have learned about the lion to the mini-book on p. T6 and glue the booklet into their lapbook.
-  **CHEETAH SCIDAT MINI-BOOK** – Have the students add the information they have learned about the cheetah on p. T6 to the mini-book and glue the booklet into their lapbook.
-  **GRASSLANDS TAB-BOOK** – Have the students add the information they have learned about the grasslands 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.

*SCIDAT: Scientific Data

- ✦ **GRASSLANDS VOCABULARY** – Have the students cut out the grasslands vocabulary pocket on p. T8 and glue it into their lapbook. Then, review the following vocabulary terms with them – food chain, grassland, and mammals. 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.

DO: HANDS-ON ACTIVITIES

SCIENTIFIC DEMONSTRATION: CAT'S EYES

You will need the following:

- ☒ Toilet paper tube, Foil, Several rubber bands, Construction paper, Flashlight

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

1. Cover one end of one of the toilet paper tubes with the foil and cover the other with construction paper. Secure both with rubber bands.
2. Take your tubes and your flashlight and go into a dark room.
3. Shine the flashlight into the tubes, what happens?

This is what you should see and why:

The students should see that the tube with the foil on the bottom appears to shine. This is because the foil reflects light, just like a cat's eye. They reflect light which makes them appear to glow in the dark.

(OPTIONAL STEAM PROJECT) ANIMAL DIET CHART


Make a poster depicting of the diets of the animals you have studied in the novel using the templates from the Appendix. For this lesson, add the lion and cheetah to the animal diet chart on Appendix p. 54 using the small animal pictures on Appendix p. 55.

GRASSLANDS MINI-LAPBOOK: LESSON 2

DAY 1	DAY 2	DAY 3	DAY 4
<input type="checkbox"/> READ: "Eyeing Elephants" of Chapter 3 in <i>SSA Volume 1: Zoology</i> <input type="checkbox"/> WRITE: Complete the Elephant SCIDAT Mini-book	<input type="checkbox"/> READ: "Glimpsing Giraffes" of Chapter 3 in <i>SSA Volume 1: Zoology</i> <input type="checkbox"/> WRITE: Complete the Giraffe SCIDAT Mini-book	<input type="checkbox"/> WRITE: Complete the Grasslands Tab-book and go over the vocabulary words, adding the cards to the mini-lapbook <input type="checkbox"/> DO: (Optional STEAM Project) Animal Diet Chart	<input type="checkbox"/> READ: One or more of the additional books to read <input type="checkbox"/> DO: Scientific Demonstration: Giraffe Saliva

READ: SCIENCE BOOKS

READING ASSIGNMENT

 Read Chapter 3 (Lost in Elephant Valley) of *The Sassafras Science Adventures Volume 1: Zoology*.

ADDITIONAL BOOKS FROM THE LIBRARY

 *Elephants: A Book for Children* by Steve Bloom

 *Face to Face With Elephants* (Face to Face with Animals) by Beverly Joubert




 *Giraffes* by Jill Anderson

 *Baby Giraffes* (It's Fun to Learn about Baby Animals) by Bobbie Kalman






 *Chee-Lin: A Giraffe's Journey* by James Rumford

WRITE: GRASSLANDS LAPBOOK

VOCABULARY

-  **HERBIVORE** - An animal that eats plants.
-  **CARNIVORE** - An animal that eats meat.
-  **OMNIVORE** - An animal that eats both plants and meat.

MINI-LAPBOOK DIRECTIONS

-  **ELEPHANT SCIDAT MINI-BOOK** – Have the students add the information they have learned about the elephant to the mini-book on p. T7 and glue the booklet into their lapbook.
-  **GIRAFFE SCIDAT MINI-BOOK** – Have the students add the information they have learned about the giraffe on p. T7 to the mini-book and glue the booklet into their lapbook.
-  **GRASSLANDS TAB-BOOK** – Have the students add the information they have learned about the grasslands to the tab-book on pp. T4 - T5. Then, staple the pages together and glue the tab-book into their mini-lapbook.
-  **GRASSLANDS VOCABULARY** – Review the following vocabulary terms with the students – carnivore, herbivore, and omnivore. 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.
-  **GRASSLANDS 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: GIRAFFE SALIVA

You will need the following:

- ☒ Cornstarch, Water, Leaves, Twigs, 2 Cups

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

1. Mix 1 cup of cornstarch and 1/3 cup of water together in one glass. This is your giraffe saliva.
2. In another glass, add one cup of water. This is your human saliva.
3. Mix in several leaves and a few small twigs to both glasses.
4. Observe the two cups; in which is it easier to see the twigs and leaves? Gently press one of your fingers into each of the liquids; in which one can you feel the leaves and twigs?

This is what you should see and why:

The saliva in a giraffe's mouth is much thicker, which protects the inside of its mouth from the thorns of the acacia tree from which it prefers to eat from.

(OPTIONAL STEAM PROJECT) ANIMAL DIET CHART

Add the elephant and giraffe to the animal diet chart on Appendix p. 54 using the small animal pictures on Appendix p. 55.



TEMPLATES

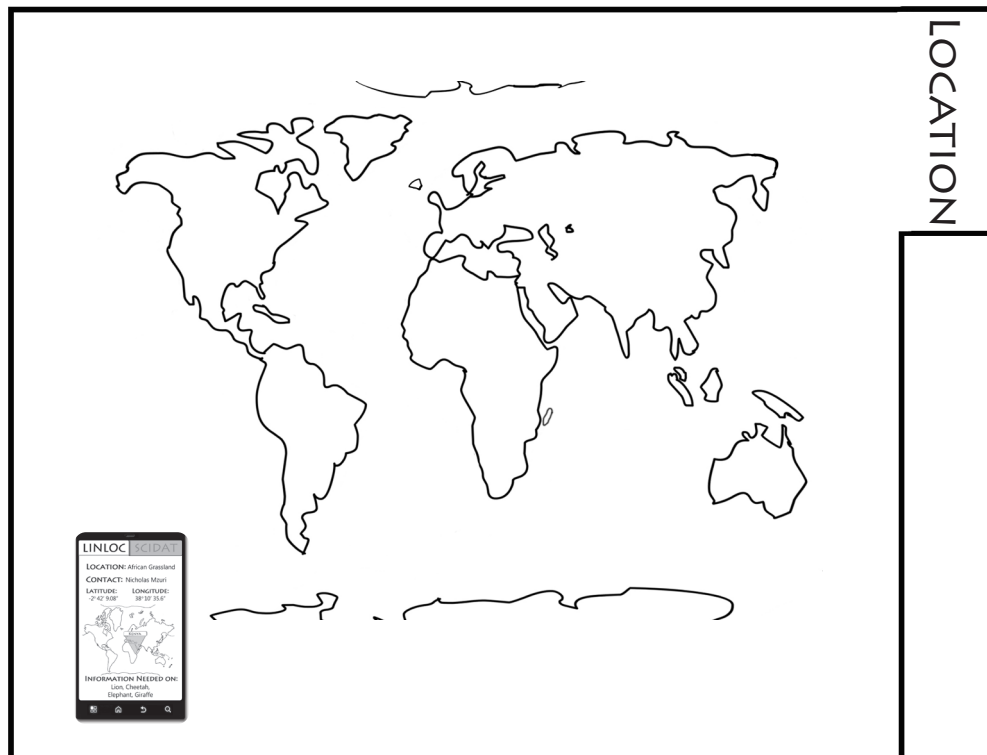
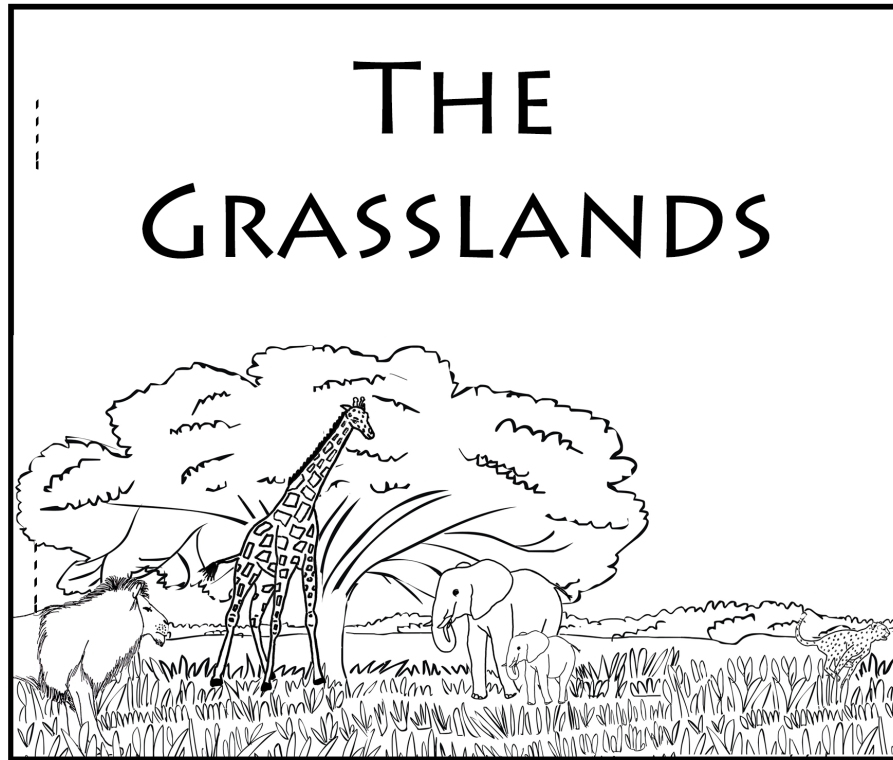
GRASSLAND MINI-LAPBOOK COVER PAGE

MY GUIDE TO THE GRASSLANDS



BY: _____
& THE SASSAFRAS TWINS

GRASSLAND TAB-BOOK TEMPLATES



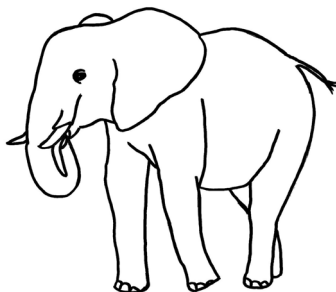
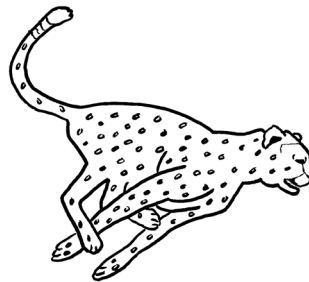
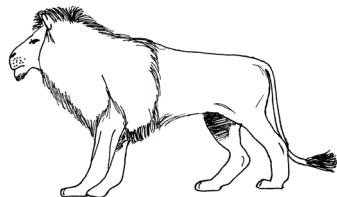
GRASSLAND TAB-BOOK TEMPLATES

INTERESTING FACTS ABOUT THE
GRASSLANDS

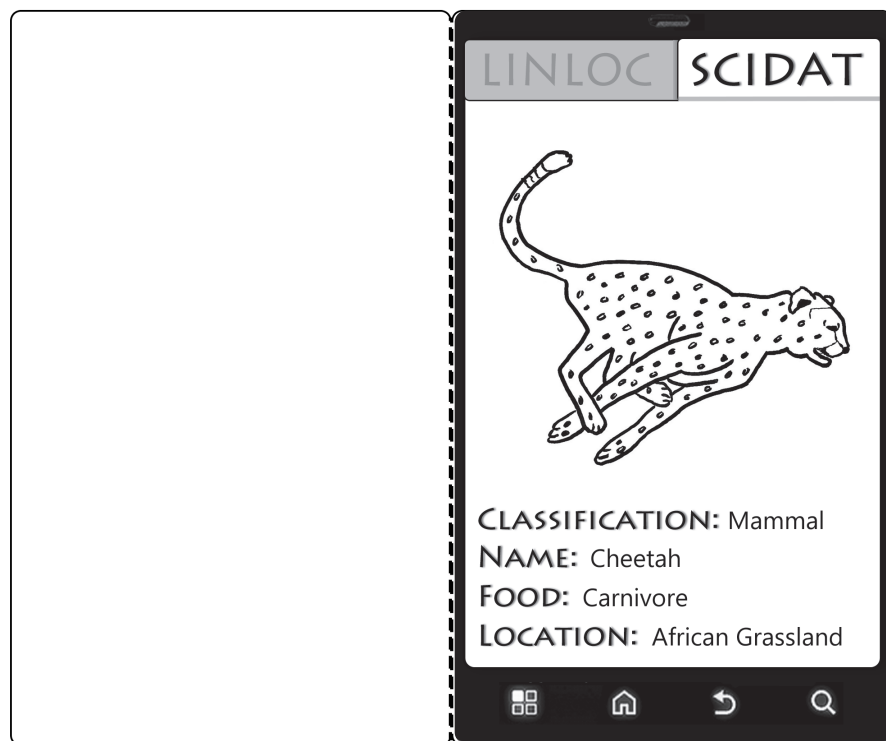
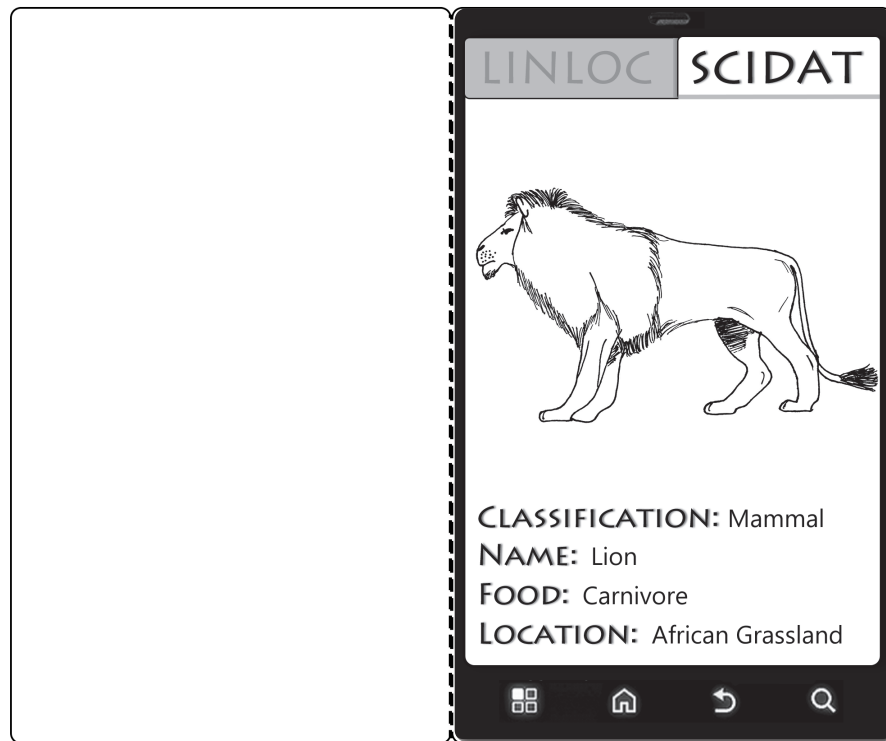
FACTS

ANIMALS THAT CAN BE FOUND IN
THE GRASSLANDS

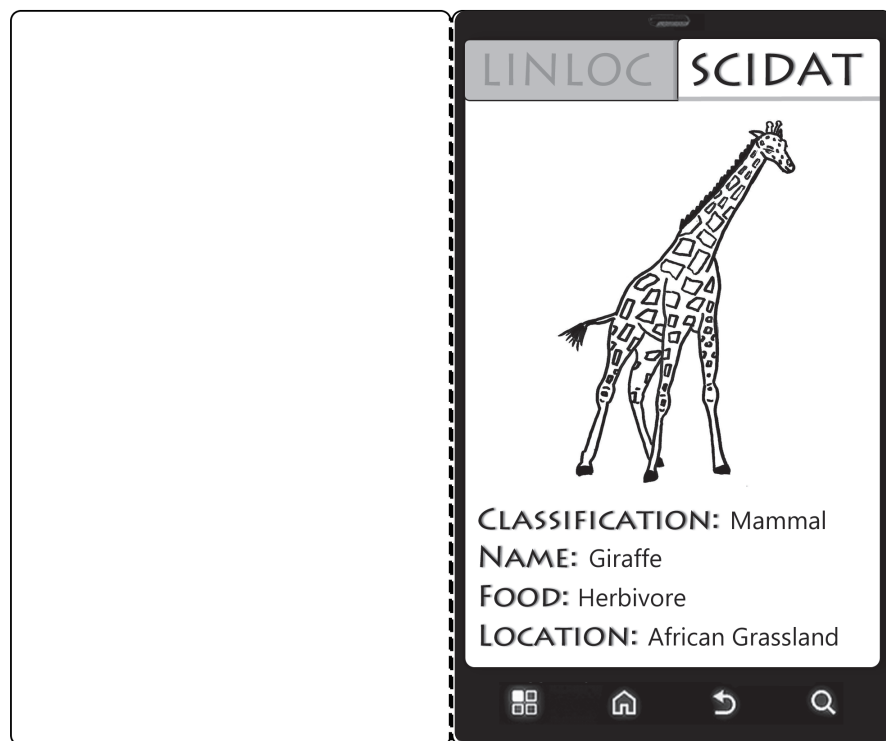
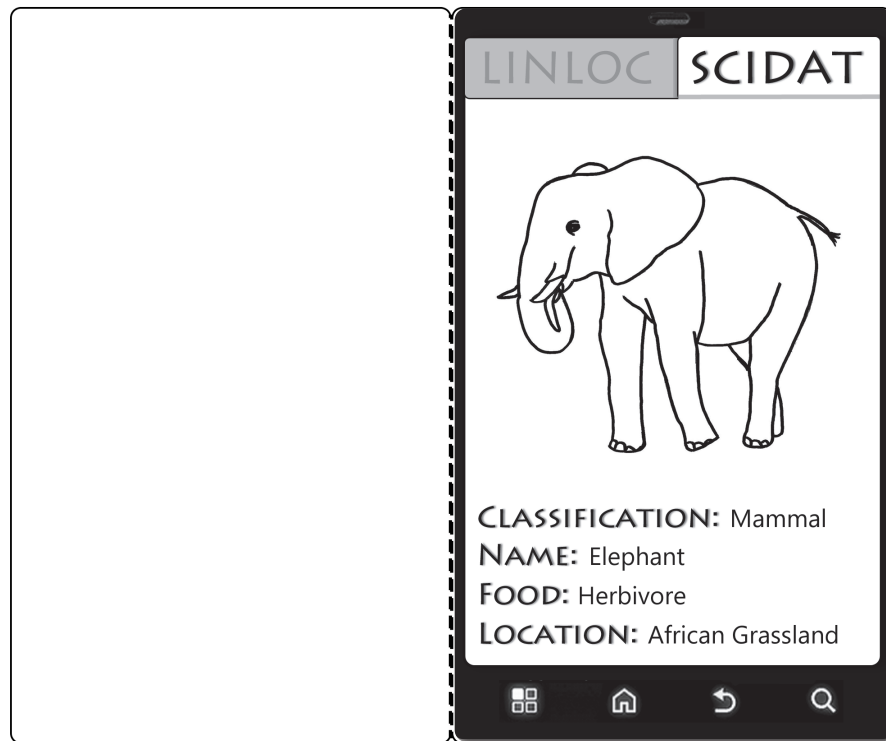
ANIMALS

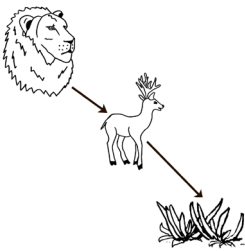
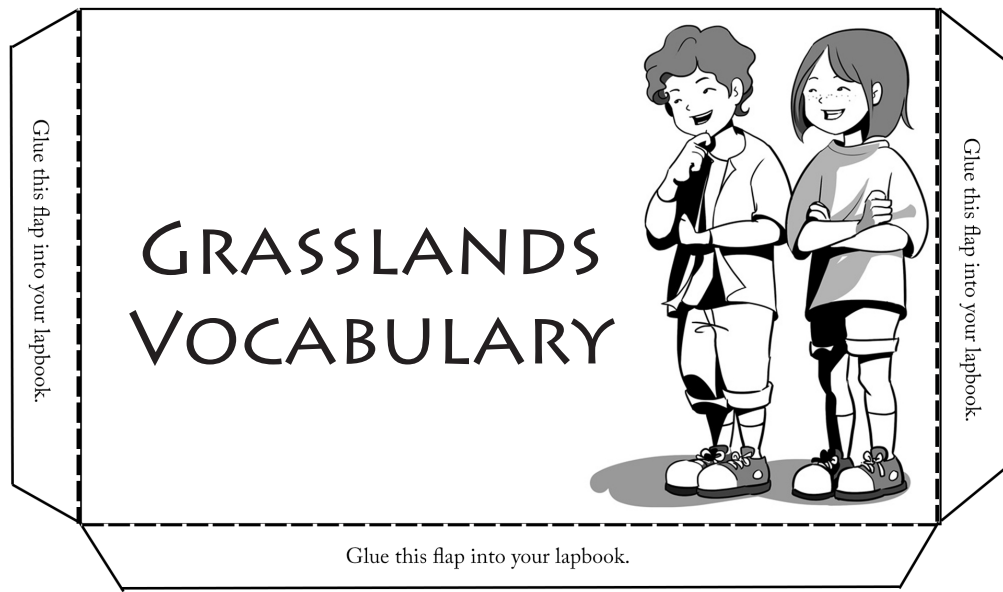


GRASSLANDS SCIDAT MINI-BOOK TEMPLATES

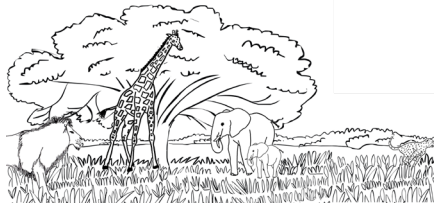


GRASSLANDS SCIDAT MINI-BOOK TEMPLATES

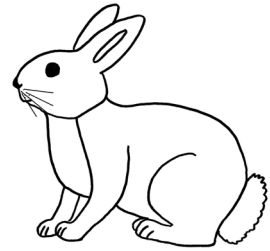




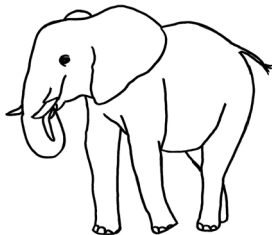
FOOD CHAIN — A chain of living things that eat each other.



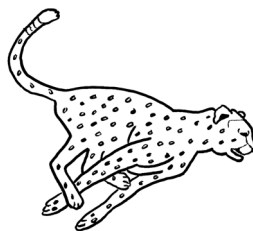
GRASSLAND — A habitat characterized by vast grassy fields.



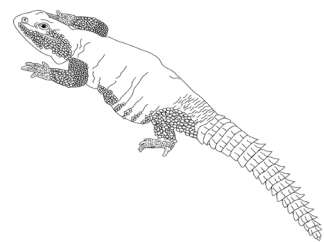
MAMMALS — Any warm-blooded vertebrate having the skin more or less covered with hair; young are usually born alive and nourished with milk.



HERBIVORE — An animal that eats plants.



CARNIVORE — An animal that eats meat.



OMNIVORE — An animal that eats both plants and meat.