

LAPBOOKING THROUGH ZOOLOGY

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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 student. 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.

Lapbooks are extremely versatile because they can be used in conjunction with any subject the students are learning about. They are excellent tools to use with elementary students as a way of reinforcing what they are learning because this age group tends to prefer a more creative format of notebooking.

The heartbeat of the lapbook is the mini-books that are placed inside. Each of these booklets contains information on topics related to the main subject of the lapbook. They can be in a variety of shapes and sizes, but the cover should have a picture related to the subject as well as a title. The interior of each booklet should contain several sentences detailing what the students have learned about the topic in their own words. The mini-books will each pertain to different sub-topics of the main topic. So for instance, for this lapbook your main topic is plants and your related mini-books are on the types of leaves, the kinds of flowers, the parts of a seed and more.

Lapbooks serve as beautiful scrapbooks that the students can continue to learn from for years to come, which makes them a beneficial addition to a student's science education. A mini-lapbook is simply a smaller version of a full-sized lapbook.

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. Science-Oriented Books** — Elementary students are an empty bucket waiting to be filled with information and science-oriented 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. 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. 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. Scientific Demonstrations or Observations** — Scientific demonstrations and observations are meant to spark the 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. Each lesson in this guide includes a suggested scientific demonstration to fulfill this section of elementary science instruction.

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

- **What Are Living Books?** — This article clearly shares the difference between living books and encyclopedias, especially in the context of science.
☞ <http://elementalblogging.com/what-are-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.
☞ <http://elementalblogging.com/the-basics-of-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://elementalblogging.com/science-corner-scientific-demonstrations-vs-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 assignments 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. If you are using this program with younger students, read the selected chapters to them. If you are using this program with older students, you can choose to have them read the assigned chapters on their own or you can read the selected pages 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 you complete 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. If you are using this program with older students, I recommend that you have them do all their own writing. Once the students have finished writing, have them color the related pictures. When the mini-book is complete, glue it into their lapbook using the overview sheet as a guide.

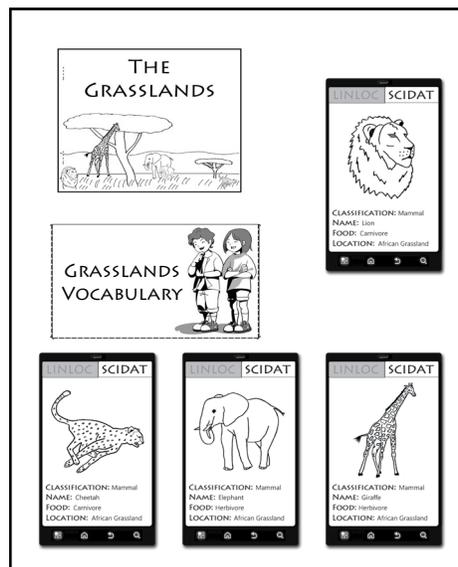
At another time during the week, review the vocabulary words with the students. You can have them memorize each one or just go over the words with the lesson. I have included a set of blank vocabulary cards to use with an older students in the Appendix on pp. 54-56. If you use the blank vocabulary cards, have the students look up the vocabulary words in the science encyclopedia of your choice or the glossary included in the Appendix on pp. 57-58. You can also dictate the provided definition to them. I recommend that you print the vocabulary cards out on card stock for durability.

Finally, you can finish the lesson by doing the related scientific demonstration. If your students are older and you would like to have them write a lab report, I have included a template for you in the Appendix on pp. 45-46. 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 pg. 47.

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.

EIGHT MINI-LAPBOOKS OR ONE 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.



I have included a cover for a full lapbook in the Appendix on pg. 44.

FINAL THOUGHTS

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 info@elementalscience.com. I will be more than happy to answer them as soon as I am able. I hope that you will enjoy creating memories using *Lapbooking through the Zoology with the Sassafras Twins*!

SUPPLY LIST

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

GRASSLANDS MINI-LAPBOOK LESSON 1

Toilet paper tube

Foil

Rubber bands

Construction paper

Flashlight

GRASSLANDS MINI-LAPBOOK LESSON 2

Cornstarch

Water

Leaves and twigs

2 Cups

DESERT MINI-LAPBOOK LESSON 1

Shoebox

Construction paper

Materials for making plants and animals

DESERT MINI-LAPBOOK LESSON 2

Hot water

1 Coffee cup

1 8x10 Pan

Instant thermometer

DOMESTIC FARM MINI-LAPBOOK LESSON 1

1 Pint of cream

1 Large glass jar with lid

½ Cup of water

DOMESTIC FARM MINI-LAPBOOK LESSON 2

1 Apple

1 Glass jar

RAINFOREST MINI-LAPBOOK LESSON 1

2-liter Soda bottle with top

Gravel

Potting soil

Several small plants

Scissors

Tape

Water

RAINFOREST MINI-LAPBOOK LESSON 2

Life Cycle of a Butterfly Worksheet

Life Cycle of a Frog Worksheet

(Both are found in Appendix on pp. 48-51.)

DECIDUOUS FOREST MINI-LAPBOOK LESSON 1

2 Thermometers

Large felt rectangle

Tape

Plastic baggie (sealable)

Warm water

DECIDUOUS FOREST MINI-LAPBOOK LESSON 2

Owl Pellet Dissection Kit

(Order from a science supply store.)

BAMBOO FOREST MINI-LAPBOOK LESSON 1

Chopsticks

Tweezers

Pliers

Eye dropper

Sugar water or honey

Gummy worms

Unshelled peanuts

Seeds

Raisins

Plate

BAMBOO FOREST MINI-LAPBOOK LESSON 2

No supplies needed.

ARCTIC MINI-LAPBOOK LESSON 1

2 Glass jars

Box at least 2 inches wider and taller than the jars

Cotton balls

2 Thermometers

ARCTIC MINI-LAPBOOK LESSON 2

Animal Diet Chart

Small Animal Pictures

(Both are found in Appendix on pp. 52-53.)

OCEAN MINI-LAPBOOK LESSON 1

Old Barbie or pony doll with hair

Tub of water

OCEAN MINI-LAPBOOK LESSON 2

1 Large plastic bag

Rubber band

Plastic glove

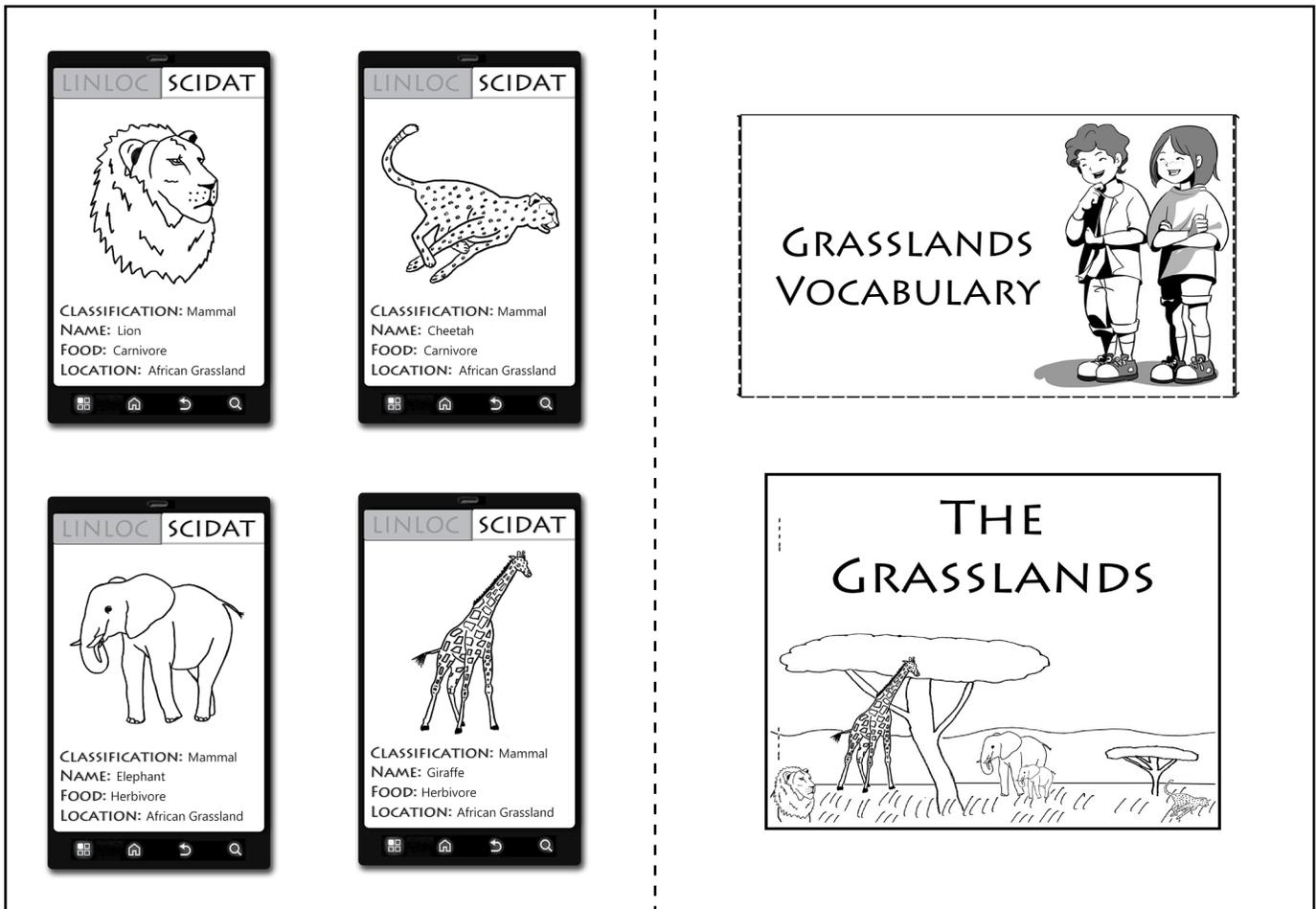
Shortening

Tub of ice water

Stopwatch

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 & 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 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, color the cover for the mini-lapbook and glue into on the front.

GRASSLANDS MINI-LAPBOOK: LESSON 1

SCIENCE-ORIENTED BOOKS

Reading Assignments

📖 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

NOTEBOOKING

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 pg. 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 pg. 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.

✂️ **GRASSLANDS VOCABULARY** — Have the students cut out the grasslands vocabulary pocket on pg. 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 pg. T8. After they color the pictures, have them place the cards into their vocabulary pocket.

SCIENTIFIC DEMONSTRATION: CAT'S EYES

Materials

☑️ Toilet paper tube, Foil, Several rubber bands, Construction paper, Flashlight.

Procedure

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?

Explanation

Your 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.

GRASSLANDS MINI-LAPBOOK: LESSON 2

SCIENCE-ORIENTED 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

NOTEBOOKING

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 pg. 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 pg. 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 pg. 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 pg. T3, color it, and glue it on the front of their mini-lapbook.

SCIENTIFIC DEMONSTRATION: GIRAFFE SALIVA

Materials

- Cornstarch, Water, Leaves, Twigs, 2 Cups

Procedure

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?

Explanation

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.

POSSIBLE SCHEDULE FOR THE GRASSLANDS MINI-LAPBOOK

GRASSLANDS LESSON 1

DAY 1	DAY 2	DAY 3	DAY 4
<input type="checkbox"/> Read the section entitled “Look... a Lion” of Chapter 2 in <i>The Sassafras Science Adventures Volume 1: Zoology</i> <input type="checkbox"/> Complete the Lion SCIDAT Mini-book	<input type="checkbox"/> Read the section entitled “Chasing Cheetahs” of Chapter 2 in <i>The Sassafras Science Adventures Volume 1: Zoology</i> <input type="checkbox"/> Complete the Cheetah SCIDAT Mini-book	<input type="checkbox"/> Add any information the students have learned to the Grasslands Tab-book <input type="checkbox"/> Go over the vocabulary words and add them to the mini-lapbook	<input type="checkbox"/> Do the Scientific Demonstration: Cat’s Eyes <input type="checkbox"/> Choose one or more of the additional books to read

GRASSLANDS LESSON 2

DAY 1	DAY 2	DAY 3	DAY 4
<input type="checkbox"/> Read the section entitled “Eyeing Elephants” of Chapter 3 in <i>The Sassafras Science Adventures Volume 1: Zoology</i> <input type="checkbox"/> Complete the Elephant SCIDAT Mini-book	<input type="checkbox"/> Read the section entitled “Glimpsing Giraffes” of Chapter 3 in <i>The Sassafras Science Adventures Volume 1: Zoology</i> <input type="checkbox"/> Complete the Giraffe SCIDAT Mini-book	<input type="checkbox"/> Complete the Grasslands Tab-book <input type="checkbox"/> Go over the vocabulary words and add them to the mini-lapbook <input type="checkbox"/> Add the cover to the mini-lapbook	<input type="checkbox"/> Do the Scientific Demonstration: Giraffe Saliva <input type="checkbox"/> Choose one or more of the additional books to read

NOTES

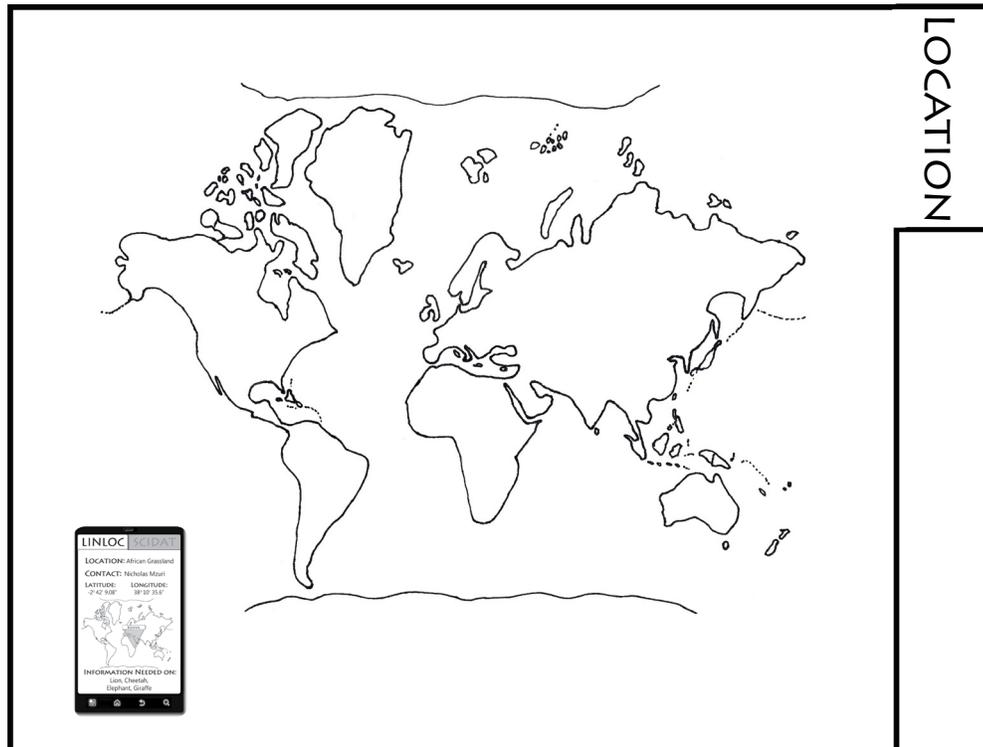
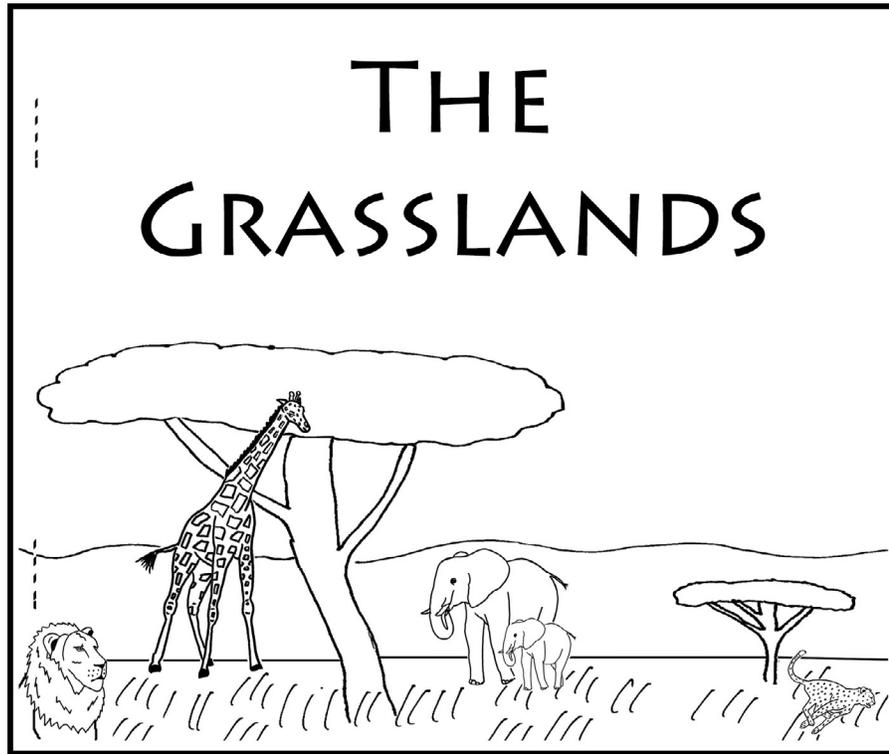
GRASSLAND MINI-LAPBOOK COVER PAGE

MY GUIDE TO THE GRASSLANDS



BY: _____
& THE SASSAFRAS TWINS

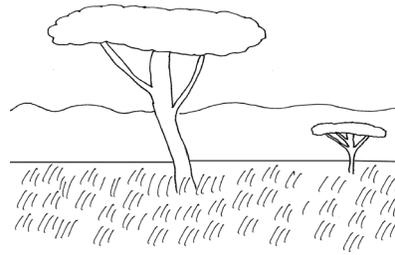
GRASSLAND TAB-BOOK TEMPLATES



GRASSLAND TAB-BOOK TEMPLATES

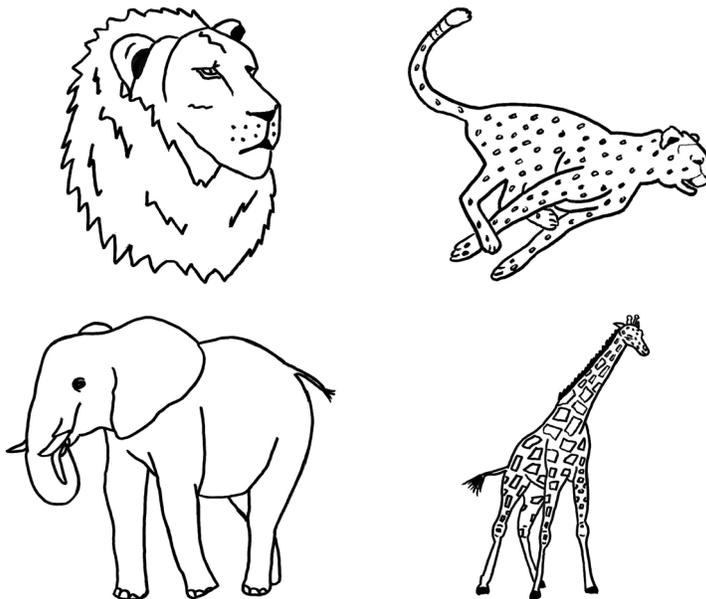
INTERESTING FACTS ABOUT THE GRASSLANDS

FACTS

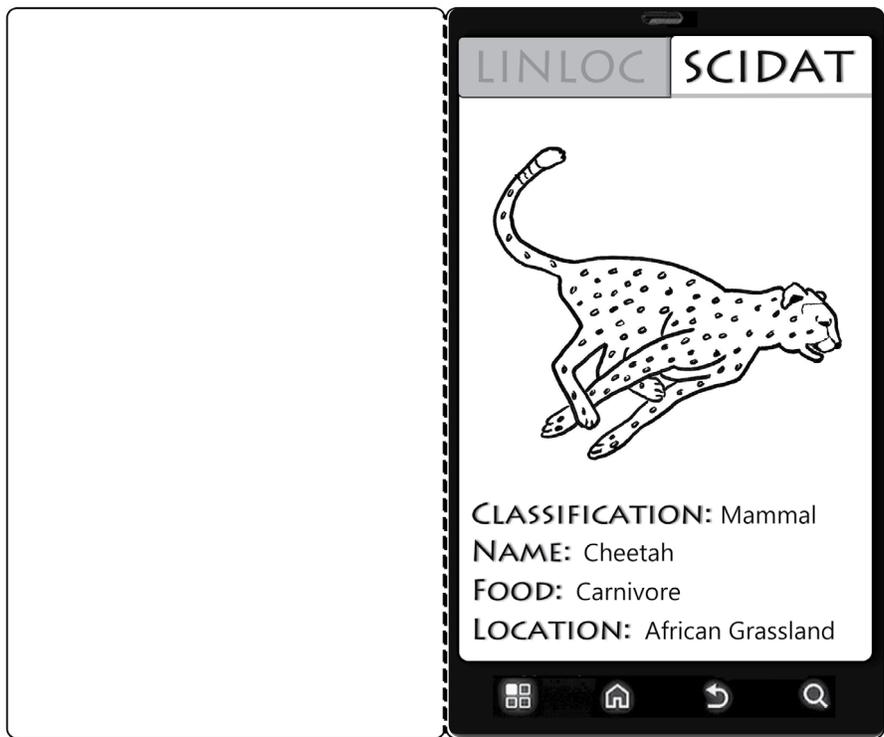
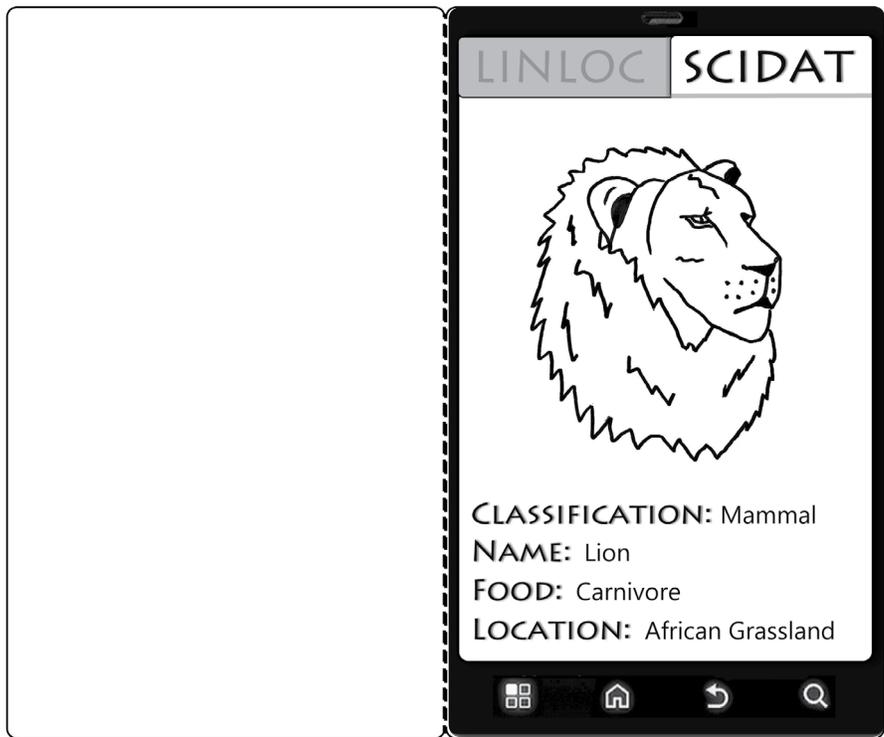


ANIMALS THAT CAN BE FOUND IN THE GRASSLANDS

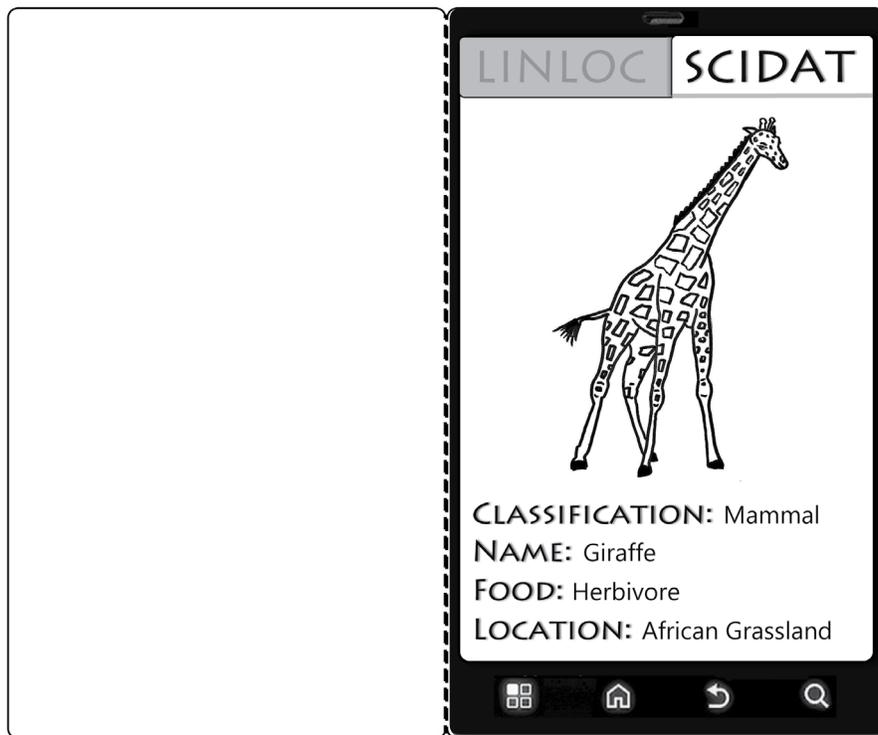
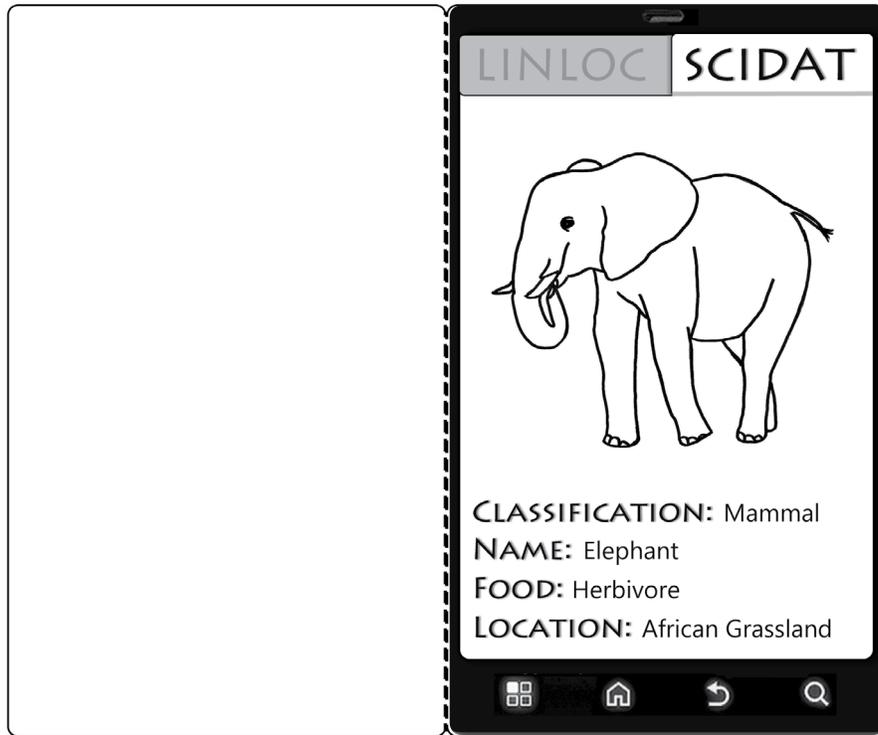
ANIMALS

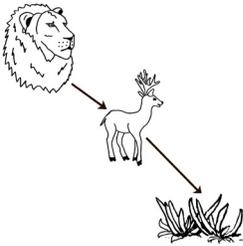
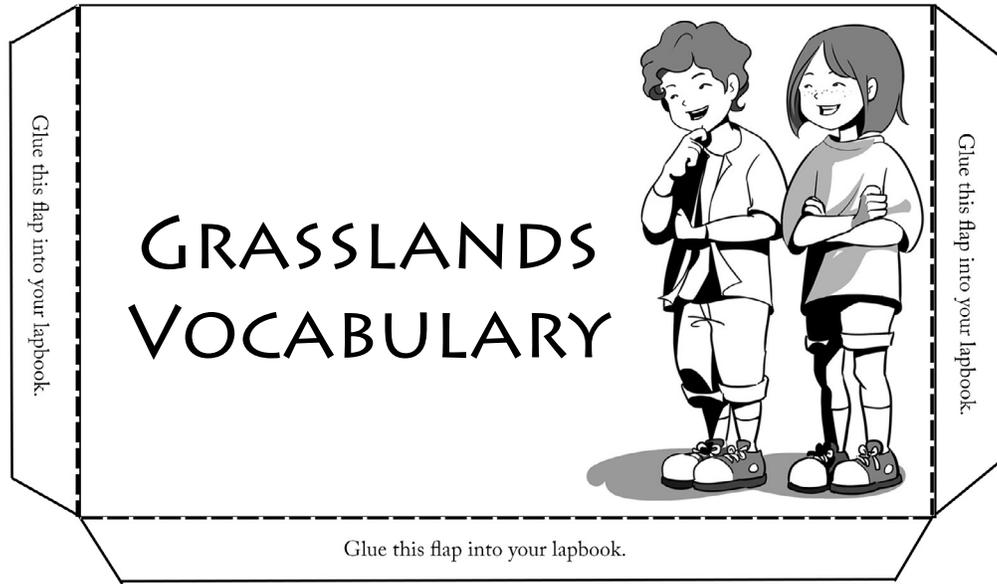


GRASSLANDS SCIDAT MINI-BOOK TEMPLATES

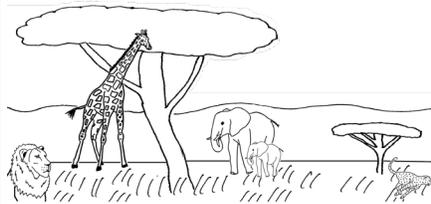


GRASSLANDS SCIDAT MINI-BOOK TEMPLATES

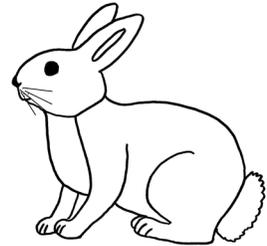




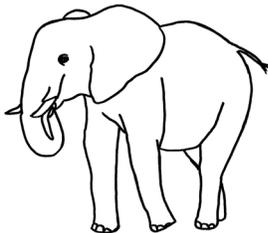
FOOD CHAIN — A chain of living things that eat each other.



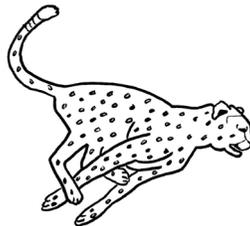
GRASSLAND — A habitat characterized by vast grassy fields.



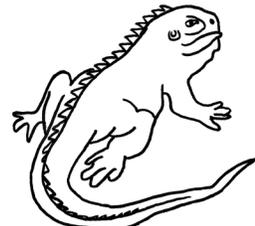
MAMMALS — Any warm-blooded vertebrate having the skin more or less covered with hair; young are usually born alive and nourished with milk.



HERBIVORE — An animal that eats plants.



CARNIVORE — An animal that eats meat.



OMNIVORE — An animal that eats both plants and meat.