

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE

Learning Goals: The students will know the stages of the lemur life cycle and be able to place them in order. They will compare a lemur's life cycle to a human's.

Students will be able to:

- Properly sequence the stages of a mouse lemur's life cycle
- Compare the stages of growing up for a human versus growing up for a mouse lemur by observing characteristics such as physical features, parental care, and daily life

LESSON DESCRIPTION

Students bring a baby picture to class taken when they were less than two years old and discuss the early stages of a human's life. Using the stories, they then discuss life as a baby lemur. Students complete the activity by putting pages of visuals (showing the stages of a lemur's life) together in the proper order to create a coloring book.

Materials needed:

- A baby photograph of each student (preferably taken before they were two years old)
- One set of the Growing Up Lemur activity sheets per student
- Stapler (to staple Growing Up Lemur coloring pages located on the activity sheet)
- Crayons

Note: students should interview parents the night before doing this activity.

1 HOUR

LEARNING ABOUT LEMUR LIFE

ACTIVITY

1. Ask the students to show and describe their baby photo.
2. Introduce the activity by discussing the early stages of a human's life.
Pose the following questions: How did your family prepare for you to be born? How much did you weigh when you were born? What did you need to stay healthy? How did you keep warm? How did you spend your time? What were your favorite foods? How long did it take before you could eat, walk, and survive on your own? Have students interview their parents the night before and record their responses for the activity.

**FOR BACKGROUND
INFORMATION SEE:**

*LEARNING ABOUT
LEMUR LIFE*



**FEATURED BOOK:
BITIKA THE MOUSE
LEMUR**

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE

3. Show photos of adult lemurs. Ask the students what they think lemur babies look like when they are first born. Explain to the students that like them, lemurs are mammals. That means that infant lemurs are born looking like miniature versions of the adults. Pose the same questions about a lemur's early life (see step 2) as you did about their early life and brainstorm possible responses. Key differences to highlight include: mouse lemurs are born with their eyes closed (like puppies, kittens, rabbits and squirrels) and baby mouse lemurs live in a nest. Create a Venn diagram or create two lists comparing the early stages of a human's life and a mouse lemur's life.
4. Explain to the students that they are going to hear a story about a baby mouse lemur and her mother. During the story the students should look at the illustrations and listen for descriptions about Bitika's life as a baby mouse lemur.
5. Read *Bitika the Mouse Lemur* aloud to the class.
6. After the story review your two lists describing the early stages of the mouse lemur's life vs. a human's early life.
7. Pose any additional questions that would give them insight into the life of a baby lemur including the following:
 - How did Bitika stay safe when she was born? Bitika was born in a protective ball-shaped nest of twigs and leaves that her mother had borrowed from a larger mirza lemur.
 - How did she get food? Like all mammals Bitika drank milk from her mother. When she was old enough she traveled with her mother at night through the forest to find food.

ANALYTICAL WRITING

Describe the life cycle of a lemur. In what ways is their life cycle the same and different than our own life cycle?

LEARNING ABOUT LEMUR LIFE

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE

- How did Bitika learn about the world around her? Like you, she learned by using her senses and experiencing new discoveries first hand. Like humans, baby lemurs also learn from their parents.
- What did Bitika discover during her adventures in the forest? Trees, stars, the night sky, different types of lemurs and other forest creatures, different types of plants and foods.
- What did she learn during her travels with her mother? Different types of foods, how to travel along branches and through the forest, how to protect herself and her mother from predators, which animals were safe to be around and which were not.
- What does a baby mouse lemur need to survive? A baby mouse lemur needs food, water, shelter and its mother's care and protection.

8. Review the list or diagram that was made in the class before reading the story. Were the student's projections correct? Were Bitika's survival needs the same or different as human survival needs?

9. Copy and pass out the Growing Up Lemur coloring pages.

10. Review the captions and drawings that describe the life cycle of a mouse lemur from birth to adult.

Instruct them to put the events in the order in which they occur. When they have done so, allow them to color the pictures and staple them together to create their own mouse lemur life cycle coloring book.

WRAP-UP

Review the coloring pages and their correct order with the class. Facts/comparisons to consider: Mouse lemurs are pregnant for only two months (vs. nine months for a human). A mouse lemur is independent at two months (vs. eighteen years for a human). A mouse lemur can start a family within a year (the average age for women in the United States to have children is about 25 years).

LEARNING ABOUT LEMUR LIFE

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE

NO-SONG THE INDRI EXTENSION

1. Read the book *No-Song the Indri* to help students compare the life of a two year old human to that of No-Song, a two year old indri (a large species of lemur).
2. Students can create a 2nd coloring book describing their life as a two-year old. Use a copy of the student's photo for the cover. Add a title to the cover, for instance, Growing Up _____ (student's name). Add captions to each page comparing their life as a two-year old to No-Song. For instance:
 - When No-Song was two years old her favorite food was pepperberry. When I was two-years old my favorite food was _____. The student should complete the sentence and draw a picture of him/herself eating his/her favorite food.
 - When No-Song was two years old, she liked to hang by her feet in the trees and wrestle with her brother. When I was two years old I liked to _____ (students would complete the sentence and draw a picture of themselves participating in their favorite activity).
 - When No-Song was two-years old, more than anything she wanted to be able to sing when she grew up. When I was two years old, I wanted to be a _____ when I grew up. Students would complete the sentence and draw a picture showing at two years old what they wanted to be when they grew up.
3. After students complete their books, post them alongside their "Growing Up Lemur" book.

ZOO EXTENSION

During their zoo visit, have students identify animals' life stages. Are there baby animals? Are there any adult animals? Are there any geriatric animals? How can you tell? Are there any animal moms with their babies? How are they interacting? Does that animal mom do the same things a lemur mom does? Count the number of baby animals seen. Compare lemur life cycles to another animal.

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GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE

EVALUATION

Look at the order of the Growing Up Lemur coloring pages and check to see that the pages are in the correct order.

THIS ACTIVITY MEETS THE FOLLOWING NATIONAL AND FLORIDA EDUCATION STANDARDS

FLORIDA STATE STANDARDS

Kindergarten Science

SC.K.L.14.3

SC.K.N.1.3

Kindergarten Language Arts

LAFS.K.RI.1.1

LAFS.K.RI.1.3

LAFS.K.RI.3.7

1st Grade Science

SC.1.L.16.1

SC.1.L.17.1

SC.1.N.1.3

1st Grade Language Arts

LAFS.1.RI.1.1

LAFS.1.RI.1.3

LAFS.1.RI.3.7

NATIONAL SCIENCE STANDARDS

Kindergarten and 1st Grade

Characteristics of organisms

Life cycles of organisms

Organisms and environments

Abilities necessary to do scientific inquiry

Understandings about scientific inquiry

Form and Function

NEXT GENERATION NATIONAL SCIENCE STANDARDS

Kindergarten: Interdependent Relationships in Ecosystems (K-ESS3-3)

1st Grade: Structure, Function, and Information Processing (1-LS1-2, 1-LS3-1)

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GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE



Mouse Lemurs like Bitika are born with their eyes closed. They hide in their nest to stay safe. Their mother protects the nest and her babies inside. The mother only leaves the nest to drink and find food.

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE



After three weeks baby mouse lemurs leave their nest at night to play. They like to chase their mother and jump on their mother's feet. This teaches the babies to move fast and avoid enemies.

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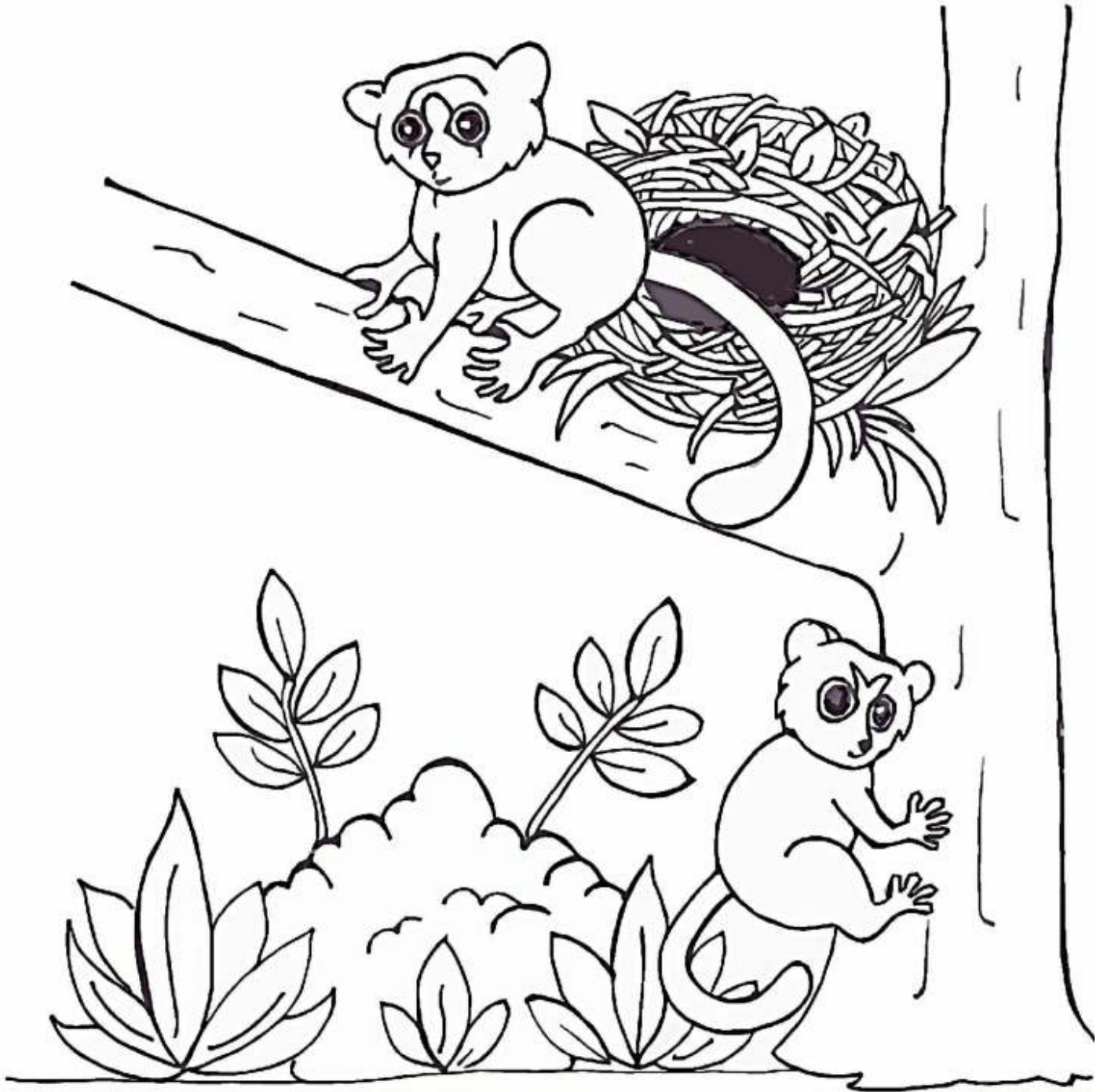
K-1ST GRADE
LANGUAGE ARTS, SCIENCE



When they are six weeks old, young mouse lemurs start eating solid food like fruit, flowers, and insects. Their mother teaches them what foods are safe to eat.

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE



When they are a year old, female Mouse Lemurs leave their mother to start families of their own.

GROWING UP LEMUR

K-1ST GRADE
LANGUAGE ARTS, SCIENCE



Baby mouse lemurs are born in November. This is summer in Madagascar - a time when there is plenty of food. Adult mouse lemurs can live up to eight years in the wild.