

SPOT ON

Activities to Accompany Juma the Giraffe

By Lise Levy and Monica Bond

Target ages: 4–7 years

JUMA
the **GIRAFFE**

 **WILD NATURE INSTITUTE**

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Objectives:

After the reading of Juma the Giraffe and discussing the story:

- Participants will be able to orally list or show in pictures characteristics common to all giraffes, and characteristics that make individual giraffes unique from each other.
- Participants will also be able to identify and discuss ways in which people are alike and different (both on the outside and inside).
- Given pictures of the four different giraffe coat patterns from the Juma book, participants will be able to identify the giraffes by making drawings of unique spots or patterns to record each giraffe's individual coat characteristics.
- Using the records made of each giraffe's unique spot/coat patterns, participants will be able to predict a giraffe's identity by visually and/or physically matching spots or group of spots to the specific coat pattern of an unidentified individual giraffe.
- Participants will create a mural of a unique giraffe by collectively contributing individually made spots to a giraffe silhouette, thereby illustrating the unique quality of giraffe coat patterns.
- Participants will create a simple giraffe mask with their own unique spot pattern.

Enrichment for Older Participants:

After an explanation of WildID the older participants will be able to discriminate individual giraffes by identifying the unique spot/coat patterns in various torso pictures of real giraffes taken in the field.

Materials:

Juma the Giraffe book

The Giraffe labeling page – Appendix A

Crayons or colored pencils

Spot/Coat Pattern Record Sheet (Spot On - Who Am I? Record Sheet) – Appendix B

Labeled Pictures of Juma, Mama, Upendo, Rafiki or use book illustrations

Who Am I? Activity Sheet – Appendix C

6-foot roll of paper with giraffe silhouette

Optional: non-toxic paint

Giraffe mask pattern/diagram – Appendix D

8.5 x 11 inch white construction paper, scissors, tape

What's In a Pattern? Enrichment activity – Appendix E



ACTIVITY #1: AN INTRODUCTION TO CHARACTERISTICS - SIMILARITIES AND DIFFERENCES IN PEOPLE

Summary:

In this exercise the concept of characteristics is explored in a discussion with the participants using a familiar subject, themselves, as the focus to begin identifying what a characteristic is. By leading into this with a discussion of Juma and his friends, it will later help the participants develop an appreciation of the giraffe as having characteristics just like they do and allow them to associate with the giraffe as a living organism just as they are.

Objective:

Participants will be able to orally list or show in pictures characteristics common to all giraffes, and characteristics that make individual giraffes unique from each other.

Materials:

Juma the Giraffe book

Procedure:

1. Reading of Juma the Giraffe.
2. Start a discussion of the story by asking participants to describe Juma and his friends.
What are their different personalities?
3. Guide the discussion to how people are alike and how are they different from each other.

Suggested topics:

On the outside, for example, people have two eyes, one nose, two ears, one mouth, two arms, walk on two legs, etc, but we have different colored eyes and hair and skin, some people are tall and some are short, etc.

On the inside, some people like to tell jokes and some people are shy and quiet, some people like to travel and some like to stay at home, but we are all special because we are all human beings.

Subject Area:
Reading, Science

Duration:
30 minutes

Setting:
Classroom

Skills:
Reading,
Identification



ACTIVITY #2: WHAT MAKES A GIRAFFE A GIRAFFE?

Summary:

In this exercise the characteristics of the giraffe are explored. Those characteristics that are similar and individually unique to all giraffes are identified on a diagram of the giraffe and discussed as to their function and advantage.

Objective:

Participants will be able to orally list or show in pictures characteristics common to all giraffes, and characteristics that make individual giraffes unique from each other.

Materials:

- Juma the Giraffe book
- The Giraffe labeling page – Appendix A
- Crayons or colored pencils
- 6 ft. Giraffe silhouette from Activity #4 to use when labeling parts (*optional*)

Procedure:

1. Explain how animals can be the same and different like people; they have similarities and differences both on the outside and inside, even if it seems that animals of the same kind look alike to the human eye.
2. Ask participants to describe what they learned about physical characteristics of giraffe from the story. Ask for the special characteristic that giraffes possess: the longest neck in the animal kingdom. Based on the book, have participants explain the advantage giraffes have with a long neck and long legs (answer: to eat leaves higher in the trees than other herbivores). Describe other ways this long neck helps them (answer: they can see danger, males fight with their necks).
3. Ask about the other helpful characteristics that giraffe possess: e.g., long thick tongue, long swishy tail, spots on their fur, and what are the functions of those characteristics? Write the answers on a chalkboard or whiteboard, and have them mimic a giraffe with a long tongue eating leaves, or the swishy tail sweeping away flies.
During this activity, the participants can use The Giraffe labeling page (Appendix A) to identify the characteristics that are listed by circling or drawing them in/on the giraffe silhouette as they are described and listed.
 - Long tongue: To help them strip leaves off the trees.
 - Long swishy tail: To keep away the biting flies.
 - Ossicones: To help males during fighting (like deer antlers) and also to keep the animal cool, as the ossicones are covered in skin and blood vessels for more surface area for cooling.
 - Spots: To hide them from lions and hyenas, and also perhaps for individual recognition, like our faces are different and we can recognize each other.
4. Guide discussion to the concept of similarities and differences of physical characteristics and, when given, ask if the characteristic given is one that all giraffes have (e.g., long neck and legs, long tongue, long tail, ossicones), or whether it changes depending on each giraffe (unique spot pattern, shape of ossicones based on age and sex, height depending on age and sex). It may be necessary to spend some time at this point helping to pronounce the scientific terms.

Subject Area:

Reading, Science

Duration:

1 hour

Setting:

Classroom

Skills:

Reading
Comprehension,
Identification



ACTIVITY #3: WHO AM I?

Summary:

In this activity the participants will be asked to explore unique giraffe spot patterns a little further in order to recognize individual giraffes from the story.

Objective:

Given pictures of the four different giraffe coat patterns from the Juma book, participants will be able to identify the giraffes by making drawings of unique spots or patterns to record each giraffe's individual coat characteristics.

Using the records made of each giraffe's unique spot/coat patterns, participants will be able to predict a giraffe's identity by visually and/or physically matching spots or group of spots to the specific coat pattern of an unidentified individual giraffe.

Materials:

Spot/Coat Pattern Record Sheet (Spot On - Who Am I? Record Sheet) – Appendix B

Labeled Pictures of Juma, Mama, Upendo, Rafiki or use book illustrations

Who Am I? Activity Sheet – Appendix C

Procedure:

1. After identifying unique spot pattern as a characteristic that changes depending on each giraffe, have participants give the shape of the distinguishing spot identified in the story for each of the four giraffes (Juma, Mama, Upendo, Rafiki). Then have them point to that identifying spot on pictures of each of the different giraffes in the Juma book.
2. Using the Spot On Record Sheet (Appendix B) have the participants draw the shape of each unique spot identified in the giraffe silhouette under the name of the giraffe who has that uniquely shaped spot.
3. Ask the participants to find one or two other unique spots for each giraffe using identified pictures of the four giraffes and draw them in the correctly named silhouette on the record sheet as well.
4. Once the record sheet is completed give the participants the Who Am I? Activity Sheet (Appendix C). Have them use their completed record sheet to determine the names of each giraffe pictured on the activity sheet by finding the unique shaped spots that they recorded, in the pictures of the unidentified giraffes, and matching it to the correct name of the giraffe from the record sheet.

Upon completion, congratulate the participants by telling them they are now wildlife scientists and can identify individual giraffes depending on each giraffe (unique spot pattern, shape of ossicones based on age and sex, height depending on age and sex).

It may be necessary to spend some time at this point helping to pronounce the scientific terms.

Subject Area:

Scientific Method

Duration:

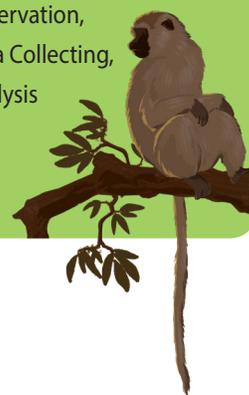
1 Hour

Setting:

Classroom

Skills:

Observation,
Data Collecting,
Analysis



ACTIVITY #4: MAKE A GIRAFFE FOR YOUR CLASS

Summary:

In this activity each of the participants will contribute to the making of a unique giraffe for their classroom by creating a unique spot.

Objective:

Participants will create a mural of a unique giraffe by collectively contributing individually made spots to a giraffe silhouette, thereby illustrating the unique quality of giraffe coat patterns.

Materials:

6-foot roll of paper with giraffe silhouette

Crayons or colored pencils

Optional: non-toxic paint

Procedure:

1. (To be done in advance) Place a 6-foot long paper from a roll on the ground or a long table and draw the silhouette of a giraffe.
2. Have each participant draw and color a spot inside the giraffe, until the giraffe is filled up with its own unique pattern!
3. Alternatively, use color-safe, non-toxic paint and have each child put their own handprint as a spot inside the giraffe, or have each child trace their own handprint with a pen/pencil. With the alternative, there could be a discussion of how each participant's hand print is actually a unique spot contributing to the uniqueness of the giraffe that is created.

Subject Area:

Visual Arts, Science

Duration:

1 Hour

Setting:

Classroom

Skills:

Drawing

Illustration



ACTIVITY #5: MAKE A GIRAFFE MASK

Summary:

In this activity the participants will make a giraffe mask.

Objective:

Participants will create a simple giraffe mask with their own unique spot pattern.

Materials:

Giraffe mask pattern/diagram – Appendix D

8.5 x 11 inch white construction paper, scissors, tape

Background:

One of the main characteristics of culture of many African peoples is the use of masks in rituals and ceremonies. It is believed that the earliest masks were used in Africa thousands and maybe millions of years ago. Animals are a common theme of the African art of mask making. The mask represents the spirit of an animal: the person who wears the mask becomes that animal and allows the person to communicate with the animal.

Procedure:

1. Each child receives a 2 pieces of 8.5 x 11 inch white construction paper.
2. Using the diagram provided in Appendix D, trace and cut out the shapes.
3. Make sure the eyeholes are cut exactly where the child's eyes will look out (this will require some folding and testing before cutting the eyeholes).
4. Decorate the cheeks (just below the eyehole) with unique spot patterns—encourage the child to be creative with colors and shapes—and draw eyelashes around the eyes.
5. Fold A under the mask and tape to make nostrils.
6. Cut a long strip of paper to make a strap, and tape to the sides of the mask at B making sure the mask fits snugly to the child's head.
7. Color the ears like a giraffe's and curl slightly, then tape to the sides of the mask at B so they point outwards.
8. Cut two more strips of paper and create two cylinders: tape to the tops of the mask to form ossicones. See picture for example mask.

Subject Area:

Visual Arts, Social Studies

Duration:

1 Hour

Setting:

Classroom

Skills:

Drawing

Illustration

Construction



ACTIVITY #6: WHAT'S IN A PATTERN?

Summary:

This activity is an enrichment activity for older or more advanced participants. It challenges advanced and older students to match and identify unique giraffe using photographs from WildID data.

Objective:

After an explanation of WildID the older participants will be able to discriminate individual giraffes by identifying the unique spot/coat patterns in various torso pictures of real giraffes taken in the field.

Materials:

What's In a Pattern? Enrichment activity – Appendix E

Background:

The patterns on giraffe fur are unique to each individual—no other giraffe in the world has the same pattern, and the pattern never changes. Scientists can use these patterns to identify each giraffe in a population and study them over long time periods. A computer program called WildID helps to match the patterns from photographs taken in the field so the scientists can keep track of hundreds and even thousands of giraffes.

Procedure:

1. From the Background section above, explain WildID to the participants.
2. Using Appendix E, have students match each real giraffe photograph in the left column with the same giraffe in the right column.

Subject Area:

Science

Duration:

1 Hour

Setting:

Classroom

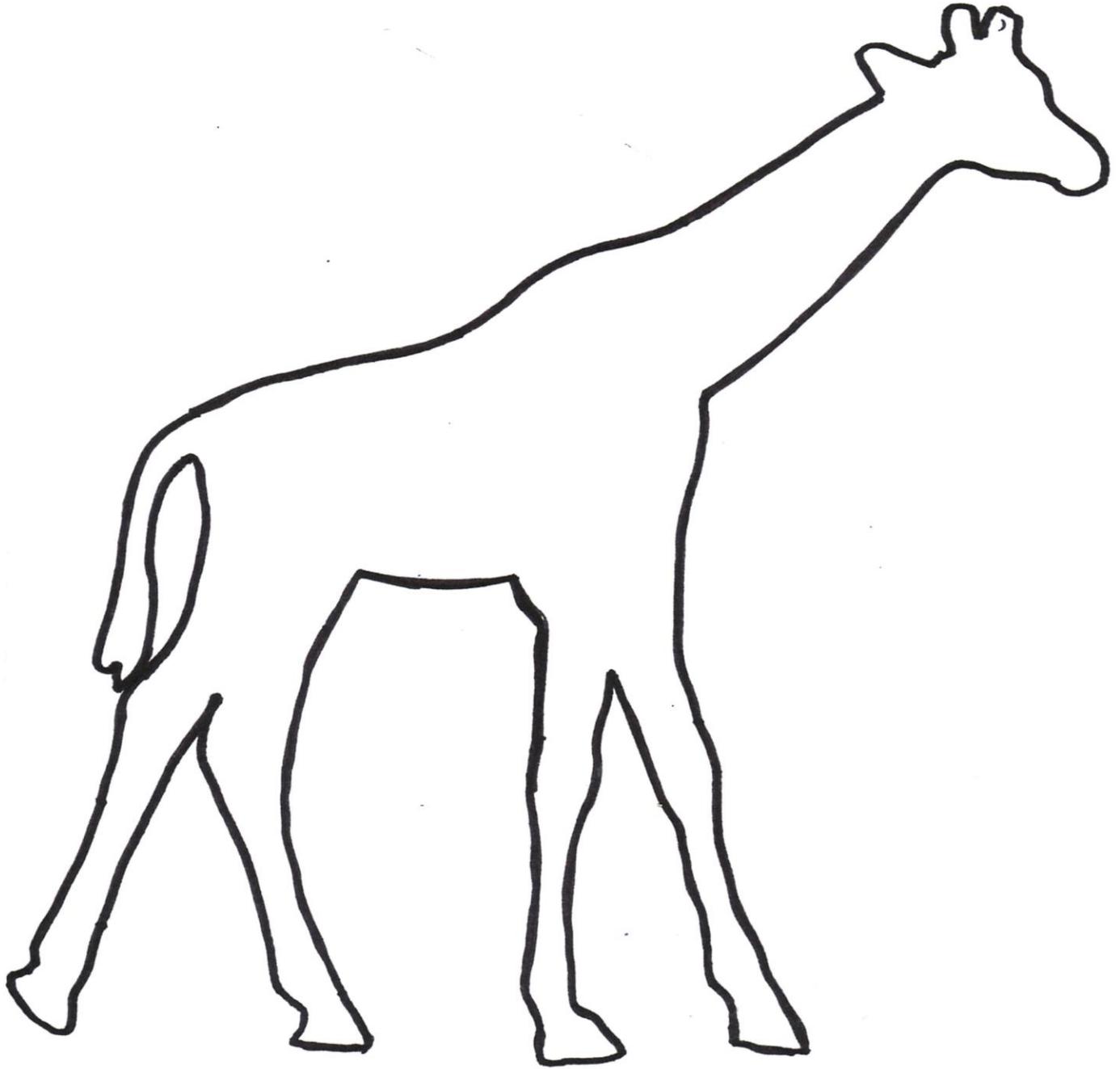
Skills:

Observation
Analysis



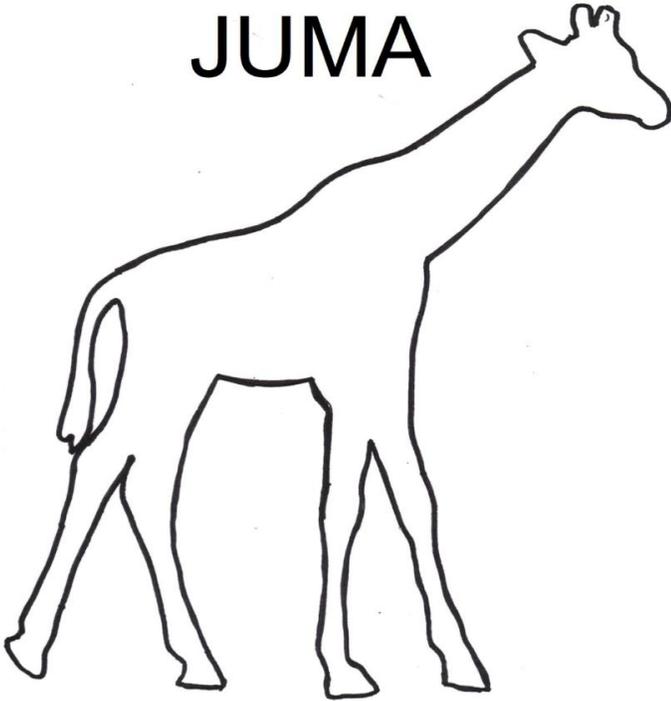
Appendix A

The Giraffe

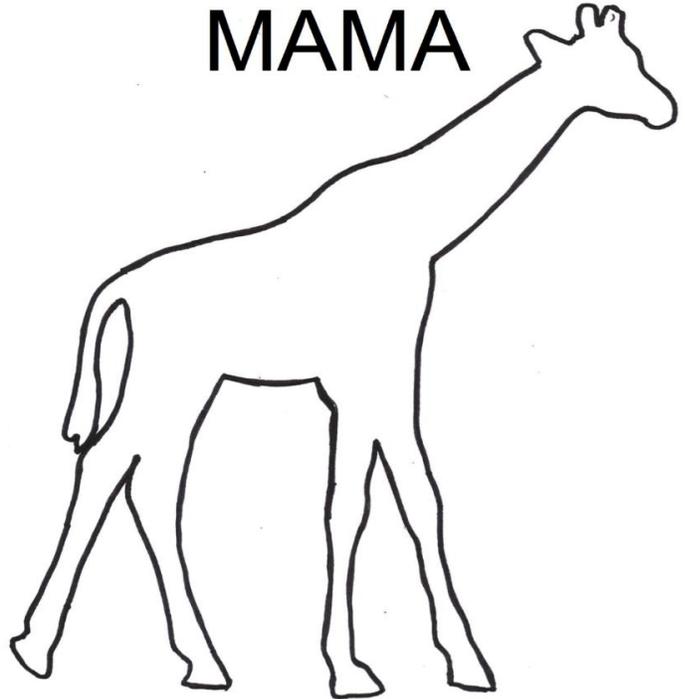


SPOT ON: Who Am I? Record Sheet

JUMA



MAMA



UPENDO



RAFIKI



Who Am I?

Use your drawings from your Record Sheet to determine the names of the four giraffes in the pictures. Look for the unique spots!



My name is _____.



My name is _____.



My name is _____.



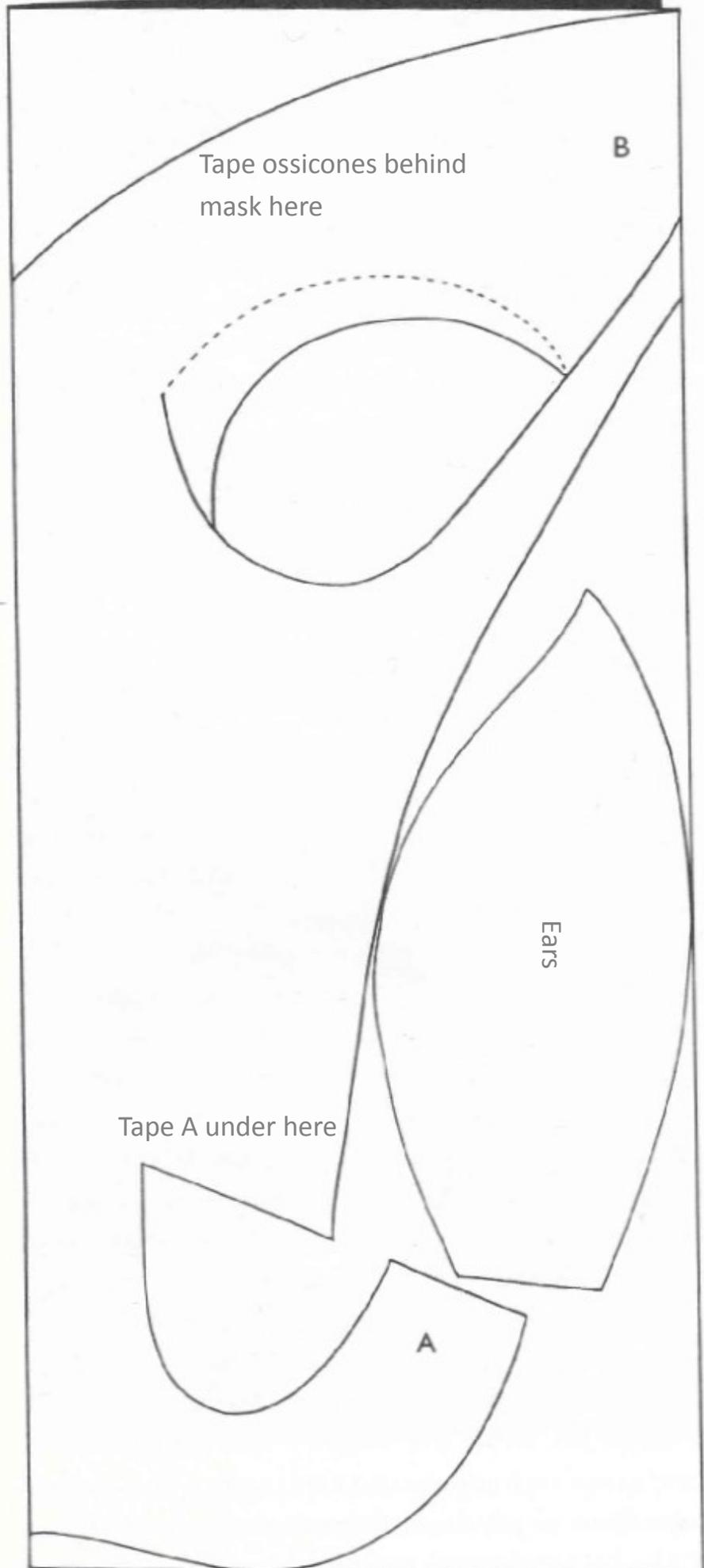
My name is _____.

Appendix D Giraffe Mask



Fold 8.5 x 11
inch paper in
half

→



Appendix E

What's In a Pattern?

Connect the giraffes on the left to the right whose patterns are the same.

A			1
B			2
C			3
D			4
E			5

Answers: A-2, B-4, C-5, D-1, E-3

**Next Generation Science Standards
supported by JUMA the Giraffe Activities' Objectives**

SPOT ON:

Participants will be able to orally list or show in pictures characteristics common to all giraffes, and characteristics that make individual giraffes unique from each other.

1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Given pictures of the four different giraffe coat patterns from the Juma book, participants will be able to identify the giraffes by making drawings of unique spots or patterns to record each giraffe's individual coat characteristics.

Using the records made of each giraffe's unique spot/coat patterns, participants will be able to predict a giraffe's identity by visually and/or physically matching spots or group of spots to the specific coat pattern of an unidentified individual giraffe.

Participants will create a mural of a unique giraffe by collectively contributing individually made spots to a giraffe silhouette, thereby illustrating the unique quality of giraffe coat patterns.

Participants will create a simple giraffe mask with their own unique spot pattern.

After an explanation of WildID the older participants will be able to discriminate individual giraffes by identifying the unique spot/coat patterns in various torso pictures of real giraffe taken in the field.

1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

SEEING SPOTS:

Identify the unique characteristics of giraffes and the significance of these characteristics.

Design and create simple costuming for each of the characters in the play that exemplifies both similarities and differences in the giraffes based on their identifying features as described in the book.

Discriminate individual giraffes by identifying the unique spot/coat patterns in various torso pictures of real giraffe taken in the field with an explanation of the WildID computer program that matches patterns.

Illustrate the unique quality of giraffe coat patterns by collectively contributing individually made spots (or handprints) to a giraffe silhouette, thereby creating a mural of a unique giraffe.

3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Define, give examples of, and identify methods to determine size of populations.

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Identify the different types of organisms that live in the African savannah biome.

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

Be a Giraffe Hero!

What can you do to help giraffes?

1. **Be loud for the quiet giant.** Tell everyone you know that giraffes are endangered and need help.
2. **Give money or time** to an organization that works to save giraffes.
3. **Grow trees!** Giraffes and lots of other animals need native trees, and deforestation hurts these animals. Planting native trees wherever you live helps animals and the environment.
4. **Refuse** to buy anything made with giraffe body parts, including bones, tail hair, or fur.

