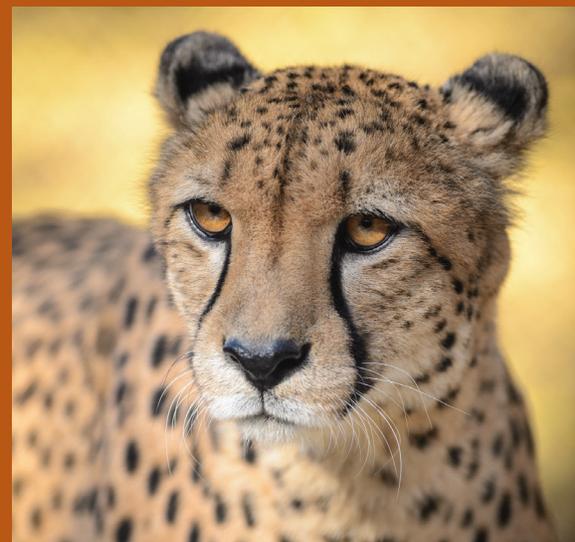
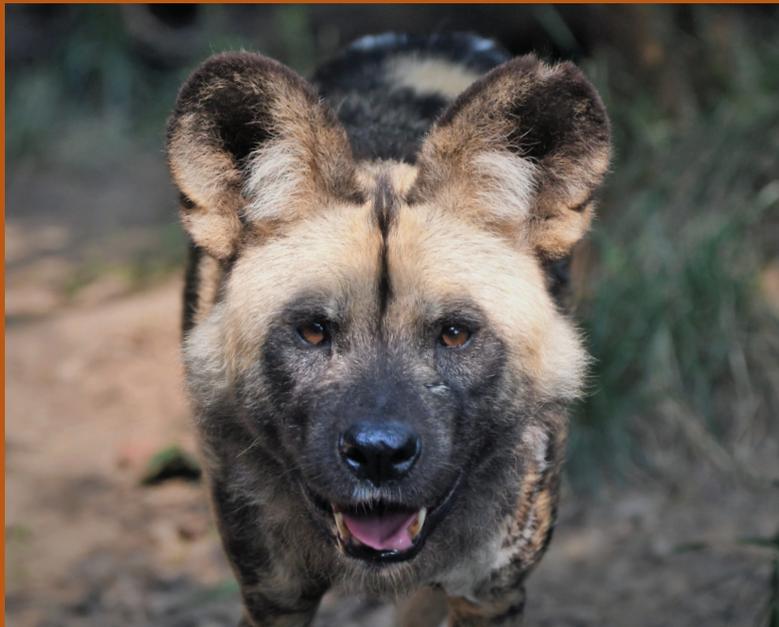


# River's Edge Scavenger Hunt: Ecosystems in Africa

*Grades 3 - 5*



**Saint Louis Zoo**  
Animals Always®

# River's Edge Scavenger Hunt: Ecosystems in Africa



## Teacher Version

**Time Suggestion:** 45 minutes

**Grades:** 3-5 (8-11 years)

**Areas of focus:** River's Edge

**MO Learning Standards:** 3.ETS1.B.1, 4.ETS1.B.1, 5.ETS1.B.13.LS3.D.1., 3.LS3.C.1., 5.LS2.B.1., 3.RA.D1a., 4.RA.D1a., 5.RA.D1a., 3.1A3.c., 4.1A3., 5.1A3.a.

**Teacher suggestions:** Prior to scavenger hunt: Have a class discussion about adaptations animals may have (their coloring, features such as horns, etc.) Fill out the KWL Chart provided for the activity  
<https://docs.google.com/presentation/d/1QUpI4JtTkk3dz4YM1tvHBQmogXyj667kl sup6NrGIco/edit?usp=sharing>



**Directions:** When you exit The Living World (North Entrance) on the ground level, turn right and follow the path until just before River Camp Café. . Turn left and follow the animal footprints on the ground to the entrance of River's Edge.

**\*Suggested:** go over the scavenger hunt before you begin.

**Materials Needed:** clipboard, paper, pencil, printouts

**Pre-Activities:** Discuss ecosystems, discuss the difference between a habitat and ecosystem, KWL Chart

**After Activities:** Be a Scientist (research okapi), research animals by visiting [stlzoo.org](http://stlzoo.org)

**Disclosure:** Some animals may choose to be inside during different times of the day. Encourage students to focus on what they can see (whether it be animals, habitats, signs, etc...).

## Exploring the Ecosystems of Africa

Journey with the Saint Louis Zoo as we take an adventure through different ecosystems in Africa!

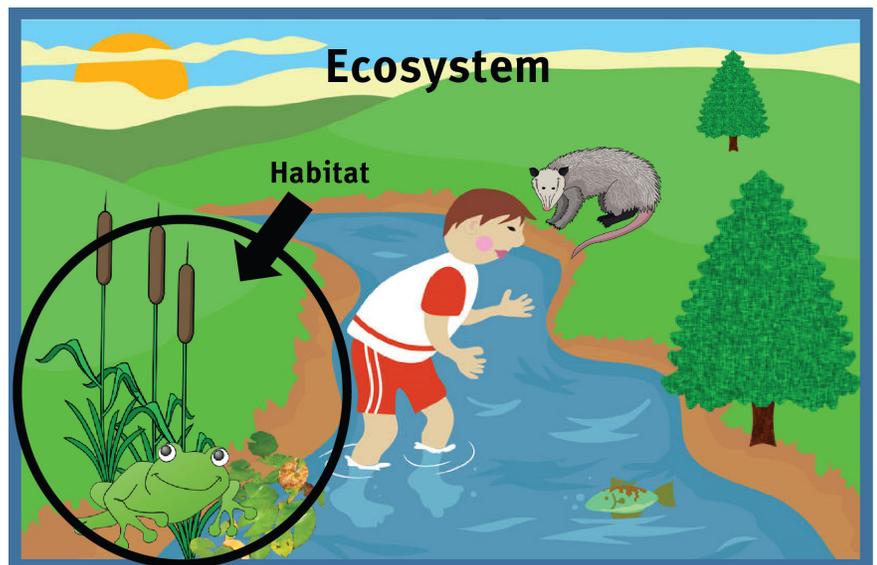
What is an ecosystem?

An ecosystem consists of different plant and animal life webs that come together and form a community. Consistent weather plays a factor in an ecosystem's characteristics.

If you have heard of a "habitat," this might sound familiar. A habitat focuses on just one life web in an area within the ecosystem.

Use this image to help you determine the difference between an ecosystem and habitat:

**An ecosystem includes all habitats, plants and animals in an area. Habitats focus on one area of an ecosystem.**



# River's Edge Scavenger Hunt: Ecosystems in Africa



We are going to focus on some of the ecosystems on the continent of Africa. The ecosystems we will learn about are: forest, grassland and wetland. Before we get started, brainstorm which animals you think we will see in Africa:

**Giraffes, Zebra, Ostriches, Lions, Cheetahs,  
Elephants, Rhinos**

You will walk through the Saint Louis Zoo's River Edge exhibit as you go through the scavenger hunt. Take a look at this map.

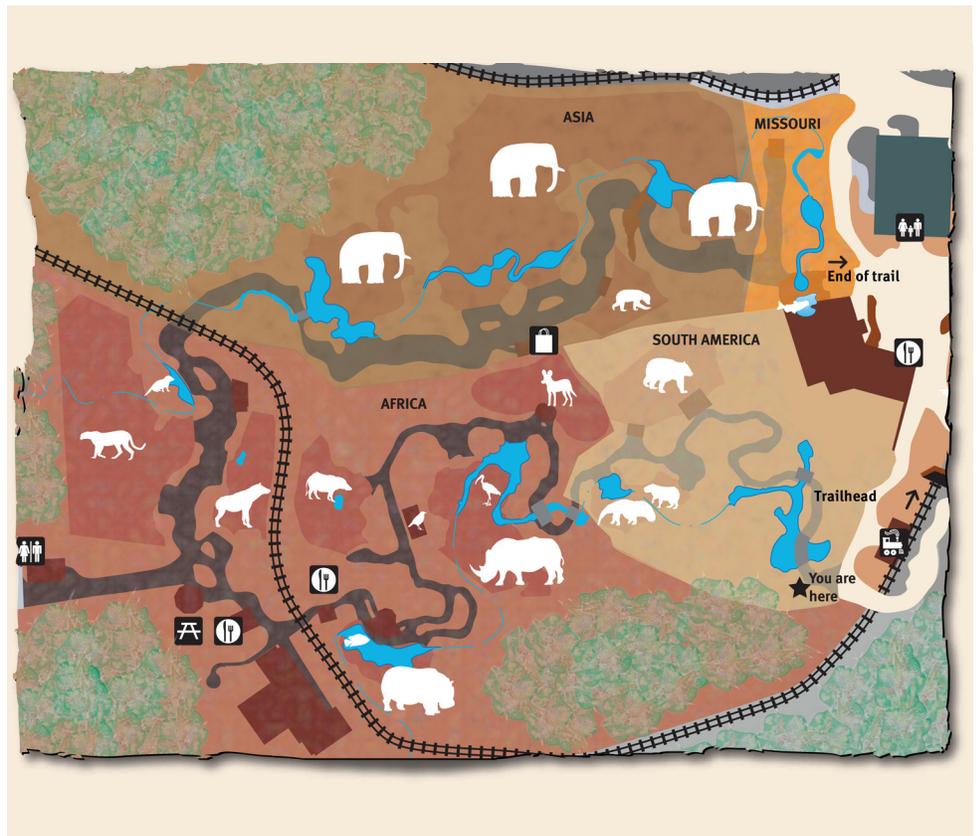
You will look at several maps today, so it's important to learn how to use them.

Using the River's Edge map, what can you tell from the area just by looking? List your observations below:

**Many plants**

**Dirt**

**Water**



# River's Edge Scavenger Hunt: Ecosystems in Africa



Stop when you see a map that has “Africa” on top. I want you to look at the map to see which animals we’ll encounter.

***\*We will not stop at each habitat, but it is important to note that animals might share an ecosystem in the wild.***

Maps have something called a “key.” A key helps you identify symbols on a map. If you look at the Africa map provided, you will see a list of animals on the right-hand side.

Next to the animal’s name, you will see a symbol.

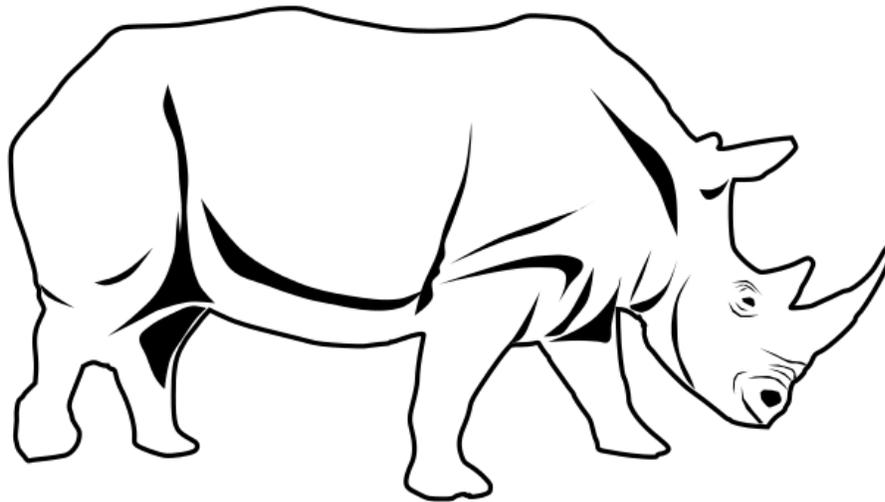
Draw a picture or write which animal you will see first on the trail below:

### Africa

- Black rhinoceros**  
- very rare due to illegal hunting for its horn
- Sacred ibis**  
- build nests in trees, often near water
- Painted dog**  
- largest African canid
- Red river hog**  
- rests by day in burrows it digs in forests
- African avary**
- Nile hippopotamus and fish**  
- its dung feeds fish, which in turn, feed villagers
- Spotted hyena**  
- powerful jaws can crush large bones
- Cheetah**  
- slender body and long limbs are built for speed
- Dwarf mongoose**  
- flush out rodents and insects for the hornbill
- Dung beetles**  
- make dung balls for laying their eggs
- Hollow log/green mamba hatchlings**  
- even at their young age they are venomous
- Bee-eater nest**  
- dig tunnels in the soft banks to lay their eggs
- Marabou stork nest**  
- build massive nests high in trees
- Hyena den/warthog bones**  
- chalky white scat from chewed warthog bones
- Ostrich nest**  
- strong hyena jaws can break ostrich eggs
- Von der Decken's hornbill in a dead tree**  
- warn mongoose when predators are near
- Anheuser-Busch Hippo Harbor**
- Wildlife Conservation School**

● cultural artifacts  
○ animal clues

## Black Rhino



This animal lives in a grassland ecosystem. In a grassland ecosystem, you will see bushes, trees and tall grass. This animal shares its ecosystem with many other animals in the grassland. The ecosystem is also known as the savanna, which is a type of grassland.

It's important to protect this animal due to the endangerment of its species. The horns of this animal are often used in illegal trade. Many efforts are being made to help keep them around. The Saint Louis Zoo works to help save this species in Kenya.

# River's Edge Scavenger Hunt: Ecosystems in Africa



If you look closely at the habitat, you will see that this animal shares it with the sacred ibis. In the wild, animals share ecosystems with many other animals. The sacred ibis lives in wetlands. This ecosystem is different than a savanna. But the two animals will overlap when sharing water sources.

Who do you share space with every day? Teachers, students, grandparents, aunts, uncles, mom, dad, siblings, pets, etc.

Provide an example of when having others around is helpful. You can write or draw your answer:

Teachers help me learn so I can become smart. My friends bring me joy. My parents feed and take care of me. My pet gives me company and safety.

A wetland is where water meets land, often forming swamps, marshes and bogs. In Africa, about half a million square miles of land is wetland. This is vital for not only animals, but humans, too. This ecosystem is shared with many animals and people.

THINK: As humans continue to move toward wetlands, how might this affect the ecosystem? Fill in the blanks on the cause-and-effect chart below. I challenge you to think of both pros and cons.

Cause	Effect
People are moving to wetlands for easily accessible water.	
People are making sure they leave enough space and clean water for wild animals.	Many species, including endangered species, have access to enough water to keep them healthy.

If you follow the path, you will approach the African painted dogs on your right. This animal also lives in a grassland (savanna) ecosystem. These dogs rely on each other by staying in a pack (group of dogs) for survival. Their packs are super complex. Every member has an important role to keep the group safe and healthy, whether it's hunting prey or caring for the pups!

The African savanna has two seasons: wet and dry. Because of this, many animals that live here have to move around throughout the seasons to find water and food sources.

# River's Edge Scavenger Hunt: Ecosystems in Africa



Here are images of what it might look like during a wet season:



Draw a picture of what you think the African savanna looks like in a dry season below:

Look closely in the African painted dog's habitat.  
You should see a structure that looks similar to this:

This is a termite mound.



Termites built termite mounds.

When you identify this structure, draw a star in the box:



# River's Edge Scavenger Hunt: Ecosystems in Africa



Termites play a very important role in a grassland ecosystem. What they do is turn the soil, which then becomes rich enough to grow vegetation. Trees are often found sprouting from termite mounds in the African savanna. This is especially important during dry seasons when animals may have to put forth more effort in finding food. These mounds provide many animals, invertebrates included, with resources to be able to live in the ecosystem.

Keep track of which habitats at the Zoo display a termite mound below:

Animal habitat: \_\_\_\_\_ Animal habitat: \_\_\_\_\_

Animal habitat: \_\_\_\_\_ Animal habitat: \_\_\_\_\_

Animal habitat: \_\_\_\_\_ Animal habitat: \_\_\_\_\_

On your map, locate the red river hog.

Where does the map key say these animals live? **South of the Sahara to northern South Africa**

Africa has two types of forest ecosystems: dry and wet! The dry forest is covered with many trees and woody plants. The dry season can last for months here. But, this is also where rivers flow, providing a water source for humans and animals. A wet forest has many plants growing with a lot of rainfall throughout the year. Our next animal has been found living in wet and dry forests!

Red river hogs live in groups and dig up burrows to live in. Since they live in the forest, they share space with other predators and prey. A common predator they share the space with is the African leopard.

View the animals below that share a forest ecosystem:

African Leopard	Okapi	Red River Hog
		
<ul style="list-style-type: none"> <li>• Lives in dry and wet forests</li> <li>• Hunts for prey</li> <li>• Can climb</li> <li>• Walks on ground</li> <li>• Nocturnal (active at night)</li> </ul>	<ul style="list-style-type: none"> <li>• Lives in rainforests</li> <li>• Eats leaves in trees</li> <li>• Secretive lifestyle</li> </ul>	<ul style="list-style-type: none"> <li>• Lives in dry and wet forests</li> <li>• Eats insects and grass</li> <li>• Makes burrows</li> <li>• Nocturnal (active at night)</li> </ul>

# River's Edge Scavenger Hunt: Ecosystems in Africa



**Be a scientist! Scientists don't know much about the okapi because they were discovered in 1901. The Saint Louis Zoo WildCare Institute is paired up with the Okapi Conservation Project to help populations stay healthy. You can learn more about the okapi by going to this website: [okapiconservation.org](http://okapiconservation.org)**

Draw a picture of what the ecosystem might look like with all three animals present:

*\*Animals might be together in a forest. The okapi could be eating from a tree. The leopard could be hiding in a tree. The red river hog could be in a burrow, etc.*

Explain your design:

**All animals can be found in a wet forest. Okapi are known to use their long tongues to eat from trees. The okapi might be surprised to find a leopard there! Leopards are excellent climbers. The red river hogs could be found in a burrow hiding from predators.**

You have explored different ecosystems today! As you now know, ecosystems are home to multiple animals, and it's important that the animals use each other to keep the ecosystem functioning. Every animal plays a role, no matter how small or how big.

As humans, it's important that we do our part in helping the ecosystems function. There are several things you can do, no matter where you live in the world. Here are a few examples:

1. Recycle and pick up litter.
2. Turn off the lights when not in use.
3. Spread knowledge! Tell a friend what you learned today.

Thank you for taking the time to visit and learn with the Saint Louis Zoo! For more information about our animals and their ecosystems, please check out the Saint Louis Zoo website: [www.stlzoo.org](http://www.stlzoo.org)