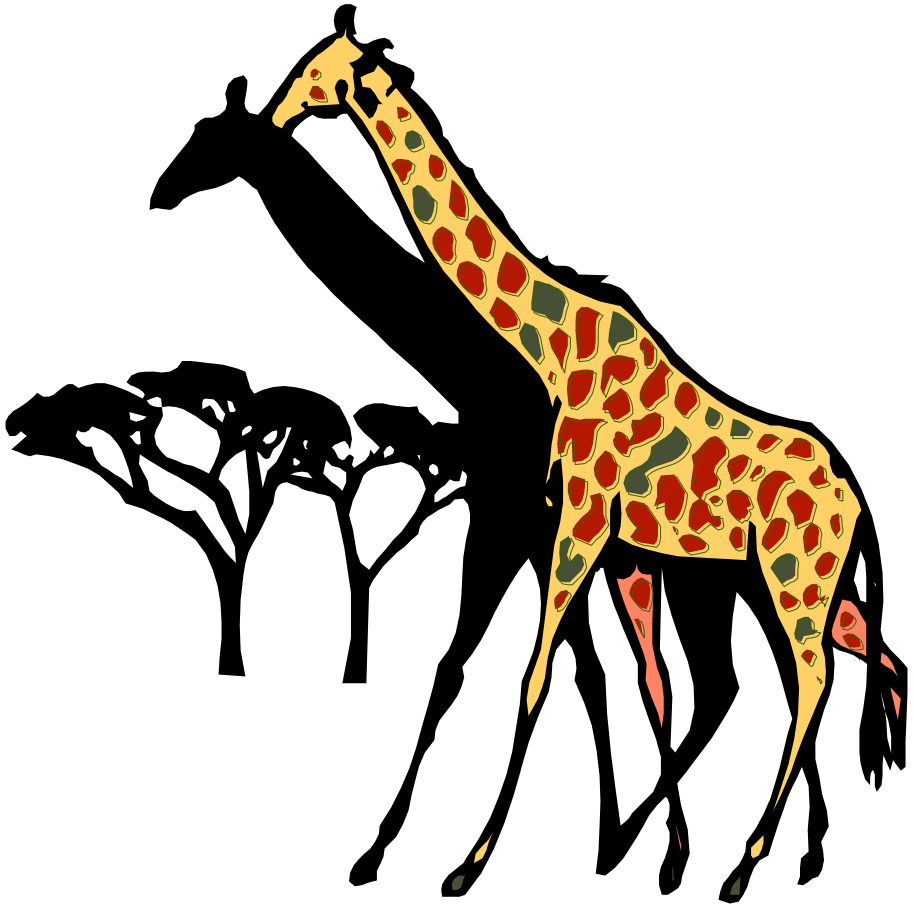
ANIMAL ADAPTATIONS

Scavenger Hunt

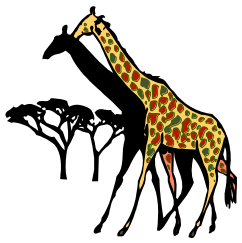
GRADES 4 - 5



Saint Louis Zoo

Animals Always®

Scavenger Hunt
Animal Adaptations (4-5)
Teacher's Guide



Updated Summer 2018
APPROXIMATE TIME: 90 Minutes

Suggestions for Teachers:

1. Allow your students about 90 minutes to complete this scavenger hunt. The questions will take them to various areas around the Zoo. Remember during colder months there may not be as many animals on display outdoors.
2. Divide your class into smaller groups supervised by an adult. This scavenger hunt is intended to be a cooperative learning experience requiring group effort and participation. We suggest that you allow each group to decide which roles individual students will have before beginning the scavenger hunt. For example, one student might record answers for the group with the understanding that the group will meet for discussion and completion of their individual scavenger hunts after visiting each area of the Zoo.
3. Copies of the Saint Louis Zoo map are available and can be used to help direct the students to the various areas while completing the scavenger hunt.

Library Resources

DVDs:

Animal Adaptations	23 minutes
Animal Behavior and Communication: Animal Life in Action	23 minutes

ZOOCASES The following zoocases include information and activities focusing on animal adaptations:

Birds Zoocase
Deserts Zoocase
Mammals Zoocase
Skull Skills

See www.stlzoo.org/education for a complete list of zoocases

Scavenger Hunt
Animal Adaptations (4-5)
Answer Key

Because the animals at the Zoo are living creatures with very special needs, at certain times some of the animals referred to in this scavenger hunt may not be on public display. **Please remind your students to do their best to complete the hunt by carefully observing the animals they find and not to worry about any that are off display.** We update our scavenger hunts on an annual basis during the summer months to be able to provide you with the most accurate information about our animals.

Answers

1. d
2. a
3. It looks like a broken tree branch. Answers to the second part of the question may vary, but they should demonstrate that the students looked at the birds and thought about the ways it has adapted to its surroundings. For example, students might mention the tawny frogmouth's body position when it sleeps, the brownish-grayish mottling in its feathers that looks like bark, etc.
4. c
5. d
6. b
7. d
8. *Goura Victoria*
9. b
10. Drawings may vary but must include the pythons black head, the adaptation listed on the sign.
11. b
12. Goeldi's monkey
13. d
14. d
15. a
16. d
17. Both (a) and (c)

VOCABULARY

Adaptation - A physical characteristic or behavior used to help an animal survive.

Amphibian - A cold-blooded animal that spends part of its life in water and part of its life on land.

Arboreal - Tree dwelling

Bird - A warm-blooded animal that has feathers, two legs, two wings and a beak.

Brachiating - Able to swing by the arms from branch to branch

Diurnal - Active during the day

Endangered - Close to extinction, in need of protection

Herbivore - An animal that eats only plants

Mammal - A warm-blooded vertebrate that has hair or fur and feeds its young milk

Nocturnal - Active at night

Omnivore - Eats plants and other animals

Prehensile - Able to grasp

Reptile - Cold-blooded vertebrate that lives on land and has waterproof scales or plates

Specialized - Changed greatly during the course of evolutionary development and highly developed to a special function in life

Survival - To remain alive or in existence

Torpedo - Cigar-shaped underwater projectile

Territorial - A particular area or region inhabited by an individual or group of animals and defended against intruders

Vulnerable - Reduced population in the wild and in need of protection

Name _____

Scavenger Hunt

Animal Adaptations 4 – 5

Student Activity Pages

Over millions of years, many animal species have appeared and become extinct (died out.) The species that have survived adapted to modern conditions. They have evolved (developed over time) in ways that help them find food, escape predators, cope with their environments, and reproduce. These changes are all called adaptations.

Some adaptations are **physical characteristics** that you can see, or that involve how an animal's body works. Other adaptations are **behavioral characteristics** and include how an animal acts or what an animal does. Here are some examples of these adaptations:

Physical *Cat whiskers*. Long hairs growing out from the face to increase the sense of touch and help the animal to feel its way around at night.

Frog skin. Thin, moist skin with glands that open externally to secrete toxins.

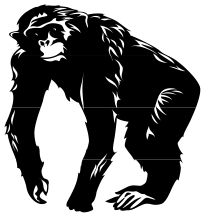
Behavioral *Antelope herds*. Living in large groups (herds) helps to protect antelope from predators. With more eyes and ears alert to potential danger, predators are less likely to take the antelopes by surprise.

Animals look and act the way they do for a reason. By observing the animal's body structure and its behavior, and by using information from the signs found at each exhibit, you will discover how animals are adapted for their specific lifestyles

You will now begin your Animal Adaptations Scavenger Hunt. Be sure that you have a copy of the Saint Louis Zoo Map.

Using your map, start at ***The Living World and proceed in a southeast direction, around Lakeside Cafe, towards Fragile Forest.*** *When you arrive, place an X on your map to show the Fragile Forest area. Use observation and information from the adaptation clues on the posted signs in the exhibit areas to help you answer your scavenger hunt questions.*

Fragile Forest / Jungle of the Apes



1. Orangutans are the only truly *arboreal* (live in trees) “great ape”. There are three species—the Bornean Orangutan, the Sumatran Orangutan, and the Tapanuli Orangutan. The Saint Louis Zoo has the Sumatran Orangutan. Orangutans move by brachiating (swinging by their arms) from branch to branch. From looking at them, what do you notice about their arms that makes them especially good at this?

a. the length
b. the fingers can be “fixed” into hooks
c. the thumbs are small
d. all of the above

2. Chimpanzees have highly developed brains and are anatomically close to humans. They have learned to imitate a number of human actions. From looking at the chimps and at the signs around their exhibit, which of the following is ***not*** true of chimpanzees?

a. Their arms and legs are about the same length.
b. They use their facial expressions to communicate.
c. They can make tools using rocks and sticks.
d. Chew on plants to kill disease-causing parasites.

Leave the Fragile Forest / Jungle of the Apes area and head towards the Bird House. *Place an X on the Bird House on your map as you arrive.*

Bird House/ Bird Garden

3. What does the **Tawny Frogmouth** look like when it is sleeping (roosting) during the day? From looking at the bird, what do you think it is about the tawny frogmouths that creates this effect?

4. This noisy territorial bird uses a hidden "spur" (small claw hidden under each wing) to defend their young and scare intruders away.

a. Red-legged Seriema
b. Golden-breasted Starling
c. Spur-Winged Plover
d. Sunbittern

5. Buff-crested Bustards are able to survive living on the ground because

a. They watch for danger by using their long necks like periscopes in their tall grass habitats
b. Their coloring provides great camouflage as they meander through the tall grass looking for food
c. Their long legs allow them to move quickly through the tall grass helping them avoid predators
d. Both (a) and (b)

6. What is the name of the courting ritual of the **Palawan Peacock Pheasant which** involves the male spreading his neck feathers so wide they hide his head, then he drops food in front of the female (this is also used by both parents to encourage their chicks to feed)?

a. Strutting
b. Tidbitting
c. Palawan Prance
d. Baiting

7. The **Toco Toucan** has numerous characteristics. Which item listed is **not** a characteristic of this toucan?

a. Can grow up to 25 inches long, with its beak making up almost half of that length
b. Nest in tree cavities
c. Can hear its calls from over a ½ mile away
d. Rests quietly on the forest floor

8. The naming system developed by Carolus Linnaeus uses the classification system of organisms. The first part of an organism's name lists the genus and the second part of its name gives its species. The scientific name of the **Victoria Crowned Pigeon** is

_____ _____

Exit the Bird House then locate the Herpetarium on your map and head in that direction. *Place an X on the Herpetarium when you arrive at the entrance.*

Herpetarium

9. Find the **Western Bearded Anole**. This animal is an excellent example of the use of _____?

a. Parenting skills
b. Communication
c. Camouflage that enables it to imitate the bark of trees on which it lives.
d. None of the above

10. Draw a picture of the **Black-headed Python** using its primary adaptation.

Exit the Herpetarium through the door through which you entered and make a right. Continue up the hill to the Primate House. *Place an X on the map when you reach your destination.*

Primate House

11. The **Guereza Colobus** (also known as **Black and White Colobus Monkeys)** have a strict plant diet and have developed bacteria in their stomach. What is the purpose of the bacteria?

a. It dissolves sand and small stones the monkey accidentally swallows.
b. It assists in the digestion of the plants the colobus monkeys eat.
c. It cleans the colobus monkey's teeth after it eats.
d. It does all of the above.

12. What monkeys form groups with other New World monkeys for safe travel & food foraging?

Exit the Primate House and continue up Historic Hill until you reach Red Rocks.
Locate and mark your destination with an X on the map.

Red Rocks / Hoofed Mammal Area

13. From looking at the **Addax** and the signage, how do you think the white coat of the **Addax** helps to make this animal a desert specialist?

a. The coat reflects the heat and helps to keep it cooler.
b. The coat is a valuable bounty for hunters
c. The coat color acts as camouflage and helps them avoid predators
d. Both (a) and (c).

14. The **Okapi** and the **Lesser Kudu** have stripes that allow them to camouflage themselves in their habitat. The okapi lives in the dense rainforests of eastern Zaire. Where is the lesser kudu's habitat located?

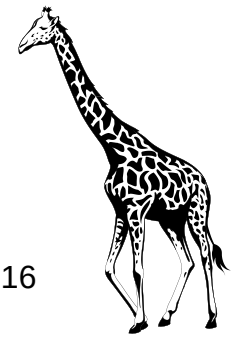
a. Midwestern plains of North America
b. Rainforest of South America
c. Rainforest of eastern Zaire in west central Africa
d. Horn of Africa

15. What do lesser kudus and okapis have in common that helps them hide from their predator?

a. They both have stripes on their body or legs

b. They both have long, spiral horns
c. They both have the same shape of head, lips and tongue of a giraffe
d. Both (a) and (c)

16. What is unique about the **Reticulated Giraffe?**



a. They have horns.
b. The giraffes' diets are plant-based.
c. Their nostrils can close when there is a sand storm.
d. With males standing at 16-18 feet tall and females standing at 14-16 feet tall, they are the tallest land animal.

17. By looking at the giraffe, how do you think the giraffe's long neck make survival on the savannahs of Africa easier? (Hint: More than one answer is correct.)

a. They can see their enemies for great distances and take action if necessary.
b. They can be sociable with lions, one of their main enemies.
c. They can graze on the leaves that other hoofed mammals can't reach.
d. They are able to keep their nostrils above any blowing sand.

Scavenger Hunt

ANIMAL ADAPTATIONS 4 – 5

Student Summary Activity

DIRECTIONS: *Using at least four of the physical and behavioral adaptations you have encountered on this scavenger hunt, draw an imaginary animal that exemplifies these*

characteristics. Give your animal a common name. Then use the naming system developed by Carolus Linnaeus to develop a scientific name. Remember, the first name refers to the genus and the second names the species.

Common Name: _____

Scientific Name: _____ _____