



# Amazing Adaptations - Eyes, Ears, Whiskers, and Teeth

Wilds of Africa

Note: One suggestion for completing this chart is to have learners work in pairs to each complete one section of the chart. Come together as a whole group to share observations.

Although home to many predator and prey species, the residents of the Giants of the Savanna exhibit are all adapted to life in a savanna grassland biome.

- Observe the species and fill in the chart below and on the Giants of the Savanna Map. As you fill in the chart, think about the following:
  - Are the eyes forward facing on the front of the face or on the side of the head?
  - What size are the ears?
  - Does the animal have whiskers? How long are they? Whiskers help create touch maps. How do you think this works?
  - Do you observe any special teeth? What kinds of teeth can you see? Pictures are included.
  - The Cheetah row has been completed as an example.
- After completing the chart, think about which adaptations make life easier on an animal living in the savanna and discuss with a partner. An adaptation helps an organism, or living thing, survive in its natural habitat, e.g. dogs have pronounced canine teeth that help them tear meat while rabbits have pronounced incisors that help them cut into.
- What other characteristics do you observe that would be useful adaptations for life in the savanna?

	<p>Cheetah</p>		<p>Lion</p>
	<p>Zebra</p>		<p>Giraffe</p>

Animal	Eyes	Ears	Whiskers	Teeth
Cheetah	<i>Both eyes in front and face forward; black markings around eye</i>	<i>Ears are small, and high on head. Independently mobile</i>	<i>Whiskers are present, not as wide as face.</i>	<i>Prominent canines</i>
Giraffe				
Zebra				
Lion				





## Amazing Adaptations - Eyes, Ears, Whiskers, and Teeth

Wilds of Africa

Note: One suggestion for completing this chart is to have learners work in pairs to each complete one section of the chart. Come together as a whole group to share observations.

Although home to many predator and prey species, the residents of the Giants of the Savanna exhibit are all adapted to life in a savanna grassland biome.

- Observe the species and fill in the chart below and on the Giants of the Savanna Map. As you fill in the chart, think about the following:
  - Are the eyes forward facing on the front of the face or on the side of the head?
  - What size are the ears?
  - Does the animal have whiskers? How long are they? Whiskers help create touch maps. How do you think this works?
  - Do you observe any special teeth? What kinds of teeth can you see? Pictures are included.
  - The Cheetah row has been completed as an example.
- After completing the chart, think about which adaptations make life easier on an animal living in the savanna and discuss with a partner. An adaptation helps an organism, or living thing, survive in its natural habitat, e.g. dogs have pronounced canine teeth that help them tear meat while rabbits have pronounced incisors that help them cut into.
- What other characteristics do you observe that would be useful adaptations for life in the savanna?

 <p>Cheetah</p>	 <p>Lion</p>
 <p>Zebra</p>	 <p>Giraffe</p>

Animal	Eyes	Ears	Whiskers	Teeth
Cheetah	<i>Both eyes in front and face forward; black markings around eye</i>	<i>Ears are small, and high on head. Independently mobile</i>	<i>Whiskers are present, not as wide as face.</i>	<i>Prominent canines</i>
Giraffe	<i>Eyes on side of head</i>	<i>Small</i>	<i>Short, on upper and lower lips</i>	<i>giraffes have no upper front teeth, and most of their teeth are actually molars in the back of their mouths.</i>
Zebra	<i>Eyes on side of head</i>	<i>Size varies, can be rounded or pointed</i>	<i>Present</i>	<i>Their teeth are well adapted for grazing, with sharp incisors at the front of their mouth to bite the grass, and large molars at the back for crushing and grinding.</i>
Lion	<i>Both eyes in front and face forward</i>	<i>Lions can swivel and rotate their ears to orient them toward the direction from which a sound originated. rounded ears that feature shaggy fur, which helps to keep their ears hidden</i>	<i>Whiskers are present, almost as long as body is wide</i>	<i>Prominent canines</i>

## Going Further

- Ever wonder about the purpose of whiskers? Whiskers form specialized touch organs, found at some stage in the life of all mammals except monotremes (echidnas and platypuses).



- As whiskers brush an object, irregularities in the surface are translated into movements of the vibrissae; those, in turn, are detected by hundreds of motion sensors inside a heavily innervated hair follicle – rats and cats have 100–200 nerve cells per whisker, seals up to 1,500.
- Whiskers allow the animal to detect the precise location, size, texture and other details of the object.
- From: <https://www.discoverwildlife.com/animal-facts/mammals/how-do-whiskers-work/>

