

Nocturnal

Fennec Fox

Tarsier

Tree frog

Red Kangaroo

Clouded Leopard

Koala

Great Horned Owl

Long-eared bat

Tarantula

Northern Short-tailed Shrew

Diurnal

Human

Chimpanzee

Eastern Bearded Dragon

Oriole

Squirrel

Horse

Red-tailed Hawk

Fennec Fox



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Tarsier



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Tree frog



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Red Kangaroo



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Clouded Leopard



Koala



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Great Horned Owl



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Long-eared bat



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Tarantula



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Northern Short-tailed Shrew



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Human



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Chimpanzee



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Eastern Bearded Dragon



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Oriole



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Squirrel



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Horse



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Red-tailed Hawk



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Nocturnal Animals

Tarsier



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Tree Frog



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Owl



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Bat



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Raccoon



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Loris



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Leopard



Snowy Owl



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Bullfrog



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Opossum



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Bobcat



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Sugar Glider



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Jerboa



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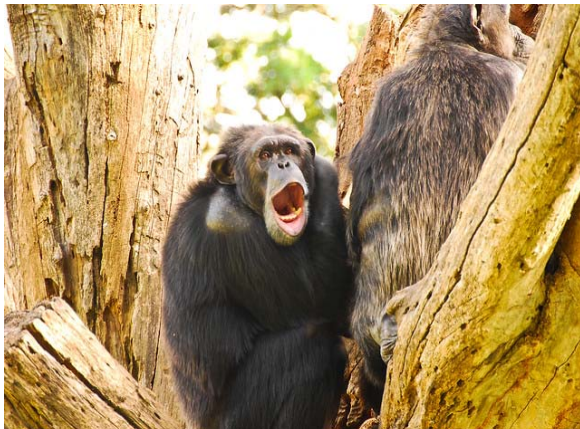
Diurnal Animals

Gorilla



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Chimpanzee



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Red-tailed Hawk



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Horse



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Oriole



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Eastern Bearded Dragon



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Duck



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Woodpecker



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Sheep



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Human



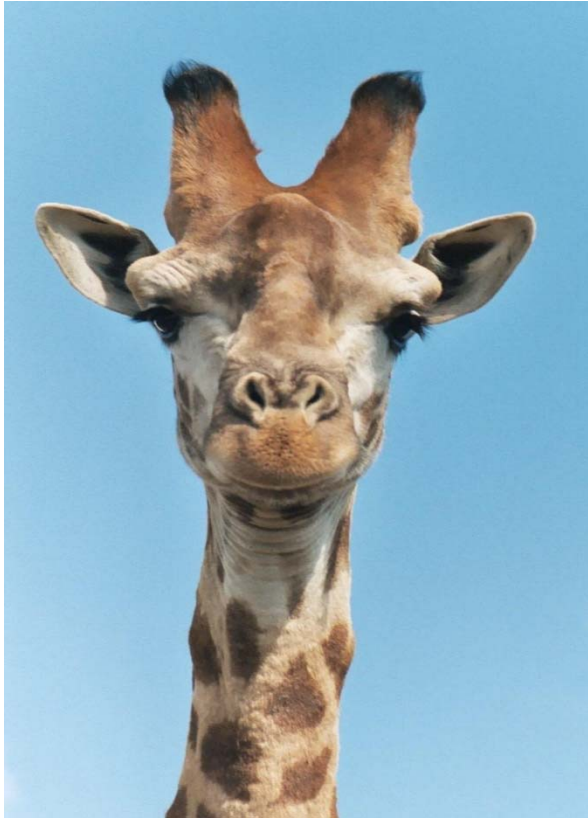
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Squirrel



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Giraffe



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Science Centers Supplies and Preparation

Center 1: Hearing

Supplies:

- Bag of plastic disposal cups
- Cotton string
- X-Acto knife (only to be used by the teacher away from students)
- Tape
- Assorted books with nocturnal animal pictures
- 4 children's chairs

Prior Preparation:

Some cups will be used to make the “cup phones” while others are left intact for students to whisper in at the beginning of the exercise. To make cup phones, cut a piece of cotton string to roughly two meters in length. Use the X-Acto knife to poke a small hole into the center of the bottom of the cup and thread the string into the hole. Tie a knot at the end of the string then tape the end of the string into the cup. Poke a hole in a second cup and repeat. This should create a “phone” with cups at either end and the string as the line. When using the “phone” it is important for the cotton string to be taught so we suggest placing chairs proper width apart so students can sit across from each other and use the cup phone.

Center 2: Specialized hairs

Supplies:

- Stuffed animal with plastic or cloth whiskers
- Five empty tissue boxes (cube shaped)

- Leaf
- Cooked Spaghetti
- Orange
- Cotton Ball
- Quartz Crystal
- Pencils
- Specialized Hairs Station Worksheets

Prior Preparation:

Empty five tissue boxes for this station. If you do not have access to tissue boxes, opaque plastic bags or brown lunch sacks could also be used. Put an object with different texture in each box.

We chose objects we had easy access to for our class including: leaf, cooked spaghetti, orange, cotton ball, and quartz crystal. One Specialized Hair Station Sheet should be printed in advance for each student.

Center 3: Smell

Supplies:

- 4 Chairs
- Enough blindfolds for each student
- 2 medium-large empty boxes
- 6 Bowls
- Foods: banana, strawberries, cheese, apple sauce, peas, bread

Prior Preparation:

For safety reasons, check with parents about potential food allergies before selecting foods for this station. We used six disposable paper bowls and put one type of food in each bowl.

Bowls were hid in the two empty cardboard boxes so students would not be able to peek ahead of time. Blindfolds were purchased in advance from Amazon with a 24 pack costing \$9.99. If purchasing blindfolds is not feasible, students could be asked to keep their eyes closed. Four chairs were set in a line in order to make it easier for the teacher to hold up bowls of food for students to smell.

Center 4: Echolocation

Supplies:

- 2-3 Boot or shoe boxes (cardboard with lid)
- Electric drill with 5/16 size bit
- 2 boxes of unsharpened pencils
- Duplo blocks or other type of block
- Duct or packing tape

Prior Preparation:

“Echolocation boxes” were made from boot or shoe boxes with holes drilled 2 cm apart across the top of the box making a grid of holes. Each box will easily have 100 holes. It is better to use a box with removable lid so items can be easily placed inside. An electric drill was used with 5/16 bit to drill holes through the cardboard. Duplo blocks were taped inside the box to represent buildings and other structures a bat or other animal with echolocation would not want to hit. Wooden blocks or other small objects would also work to tape into the box.

Center 5: Sight

Supplies:

- Pictures of nocturnal and diurnal animals
- 2 different color of stickers

- Pictures of a day and night sky
- Assorted books containing nocturnal and diurnal animals pictures

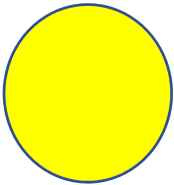
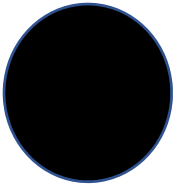
Prior Preparation:

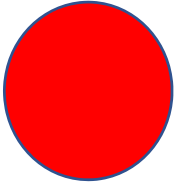
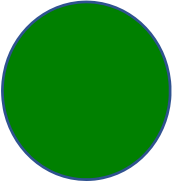
Print out the “explore-eye pictures for nocturnal and diurnal” file and cut pictures out. Place one color sticker on the back of the nocturnal animals’ cards and another color sticker on the back of the diurnal animals’ cards. In our class we used red and blue dot stickers. You may choose to laminate cards if you want them to be sturdier.

Name: _____

Specialized Hairs Station

Directions: Match the colored dot on the sheet to the colored dot on the box. Feel what is in a box while not look inside. Guess what is in the box and draw it on the paper. This will be done for all six boxes.

Nocturnal Creature “Show and Share” Rubric

To assess students during “show and share” of the nocturnal creature model. Students were asked to give their creature a minimum of two adaptations.

	Score			Total
	0	1	2	
Adaptation				0-2
Good sense of hearing	Adaptation was not present on model	Student discussed his/her representation of good sense of hearing on the model such as offset or large ears, but did not discuss its function in helping the animal survive.	Student discussed his/her representation of good sense of hearing on the model such as offset or large ears and also discussed how the structure functions in helping the animal survive.	
Specialized hair	Adaptation was not present on model	Student discussed his/her representation of specialized hairs on the model such as whiskers, but did not discuss its function in helping the animal survive.	Student discussed his/her representation of specialized hairs on the model such as whiskers and also discussed how the structure functions in helping the animal survive.	
Good sense of smell	Adaptation was not present on model	Student discussed his/her representation of good sense of smell on the model, but did not discuss its function in helping the animal survive.	Student discussed his/her representation of good sense of smell on the model and also discussed how the structure functions in helping the animal survive.	
Echolocation	Adaptation was not present on model	Student discussed his/her representation of echolocation on the model, but did not discuss its function in helping the animal survive.	Student discussed his/her representation of echolocation on the model and also discussed how the structure functions in helping the animal survive.	
Excellent Eye sight	Adaptation was not present on model	Student discussed his/her representation of echolocation on the model such large eyes, but did not discuss its function in helping the animal survive.	Student discussed his/her representation of echolocation on the model such large eyes and also discussed how the structure functions in helping the animal survive.	