

Family Link with Science

Sound Notes

Our class has just begun a unit on sound in science class and we need your help!

Collecting Materials

Many of our experiments involve generating sound from everyday household materials. *Please send in an empty **plastic bottle**, labeled with your child's name, by _____.* (The children will blow into the bottles to produce sound, so any shape or size bottle with a small opening, such as a water, soda, or juice bottle will work well.) Please also send in empty **cardboard boxes** (all shapes and sizes) to make sound boxes.

To culminate this unit, the children will be designing and building their own musical instruments. We would appreciate any materials from around the house that you think might be useful for this project. The following are some ideas:

- Different kinds of string, twine, or thin rope
- Containers (yogurt containers, plastic bowls and bottles or jars, cardboard boxes, metal cans)
- Cloth
- Wood (small and large pieces)
- Old pans and silverware
- Old broom handles, dowels, or bamboo sticks
- Metal tubes or old chimes

Sharing and Playing Instruments

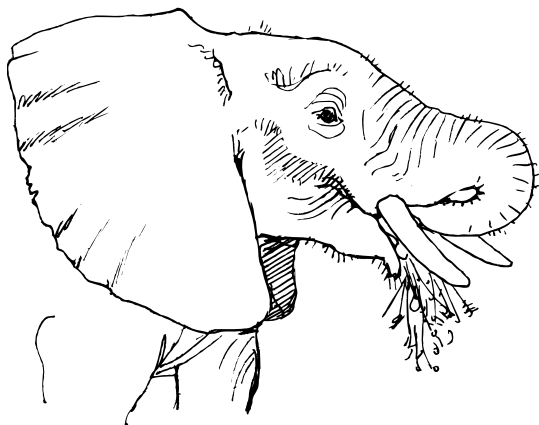
It would help the children to be able to relate the concepts they are learning about, such as vibration, volume, and pitch, to real musical instruments. If anyone in your family (child or adult) has an instrument that he or she would be willing to bring in and share with our class at some point during the unit, please fill out this form and return it to school as soon as possible. I will contact you to make arrangements.

Thank you for your assistance and participation!

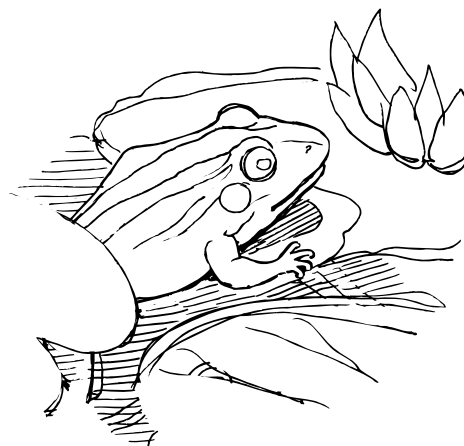
Name _____

I (or someone in my family) can bring in and share a _____
with the class. *Musical instrument(s)*

Amazing Animal Ears



African Elephant: Elephants have large, movable external ear flaps that allow them to detect very faint sounds, which helps make up for their poor eyesight.

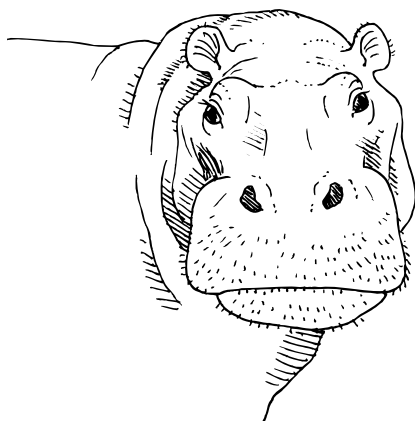


Bullfrog: Frogs do not have external ear flaps; the circles behind their eyes are their eardrums. Frogs can receive sound vibrations in air or water.

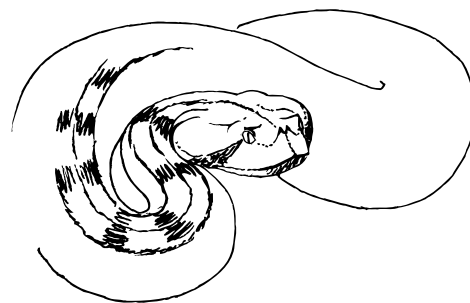


Western Spotted Bat

(*Euderma maculatum*): Bats can hear sounds that humans can't. Bats send out very high-pitched sounds and listen for the echoes that bounce off objects around them. They use the echoes to locate food, find their way in the dark, and communicate with each other. This is called echolocation.



Hippopotamus: Hippos have ears that are high on their heads and can open and close. When hippos are above water, their ears stick up; when they go underwater, hippos can close their ears.



Gaboon Viper (*Bitis gabonica*): Snakes do not have ears at all, although they can sense vibrations through their skin.

Ear Labels

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ear canal

eardrum

anvil

external ear

cochlea

hammer



Ear Labels

(page 2 of 2)



brain

ear canal

**auditory
nerve**

stirrup