



Science Virtual Learning

4th Grade

Science Review

April 6, 2020



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Lesson: April 6th, 2020

Learning Target:

I can compare and contrast the ways different animals process sound.

Background: This is a review lesson from our Structures and Functions of Organisms

- Students learn the structure of the ear.
- Student will describe or draw a model to show how the sense of sound works.

Let's Get Started:

Watch Videos:

1. [Introduction to Hearing](#)
2. [Study Jams: Hearing](#)

Practice:

Read the article about how animals use their sense of hearing to “SEE”. After reading, complete the activities on the next slides.

Seeing with Sound

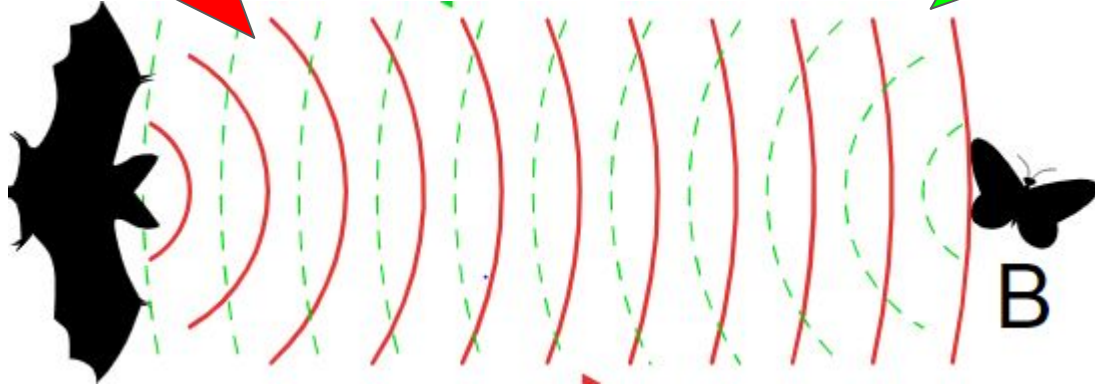


Practice #1:

What do the
RED LINES
stand for?

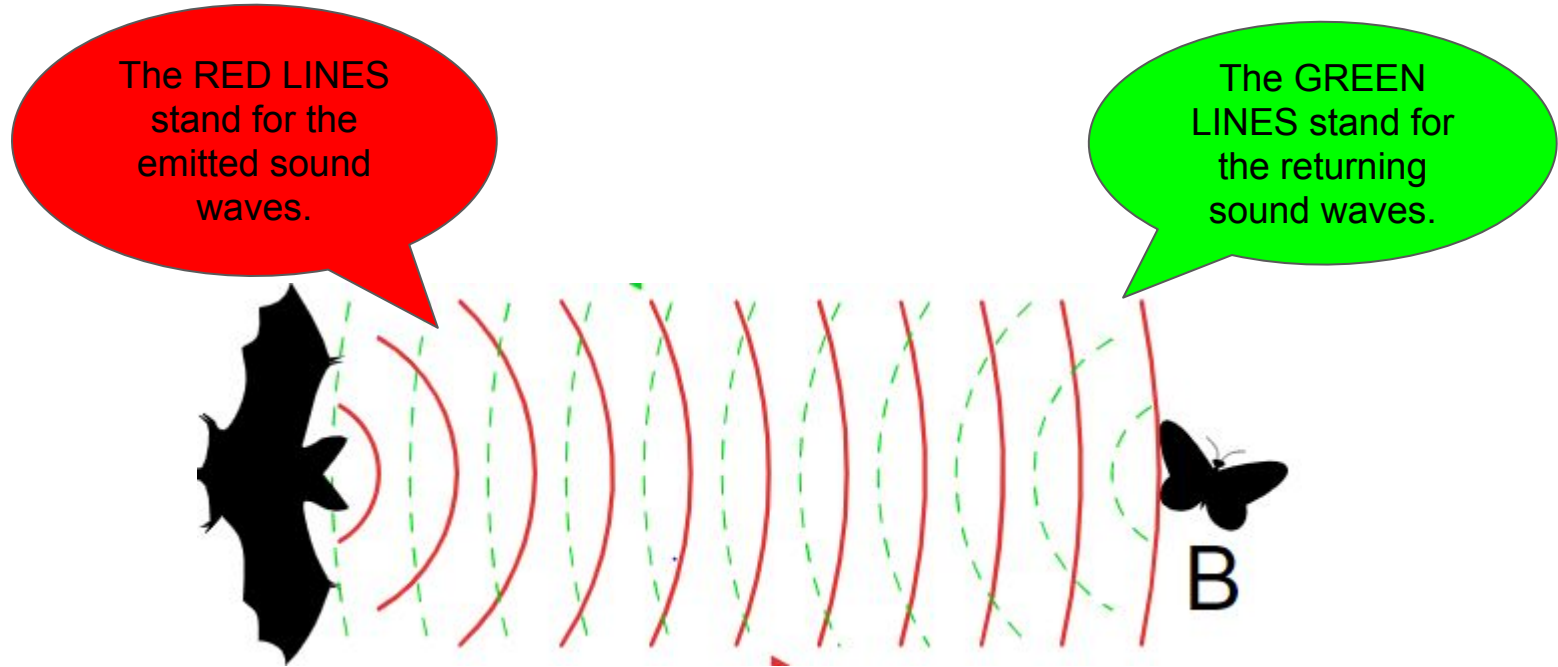
Use the model to
answer the
following
question.

What do the
GREEN LINES
stand for?



Explain how the bat is using echolocation to “see” the butterfly. Include what senses are involved and what it tells the bat about the butterfly.

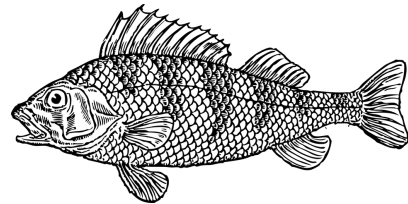
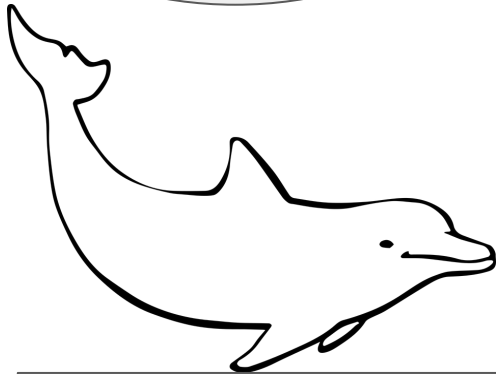
Practice #1 answer:



The bat sends out a sound wave using its mouth or nose. The waves bounce off the butterfly, “showing” the bat where and what the butterfly is based on the echo.

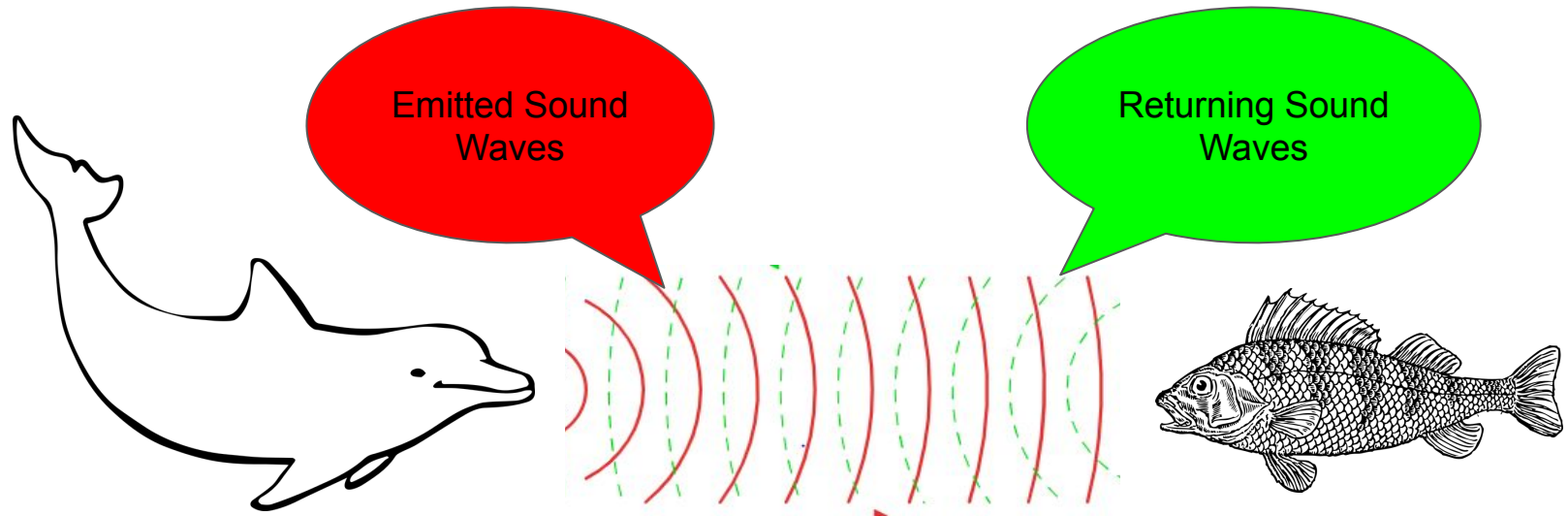
Practice #2:

Draw and label
how the dolphin
would use
echolocation to
sense the fish.



Explain how the dolphin is using echolocation to “see” the fish.
Include what senses are involved and what it tells the dolphin about
the fish.

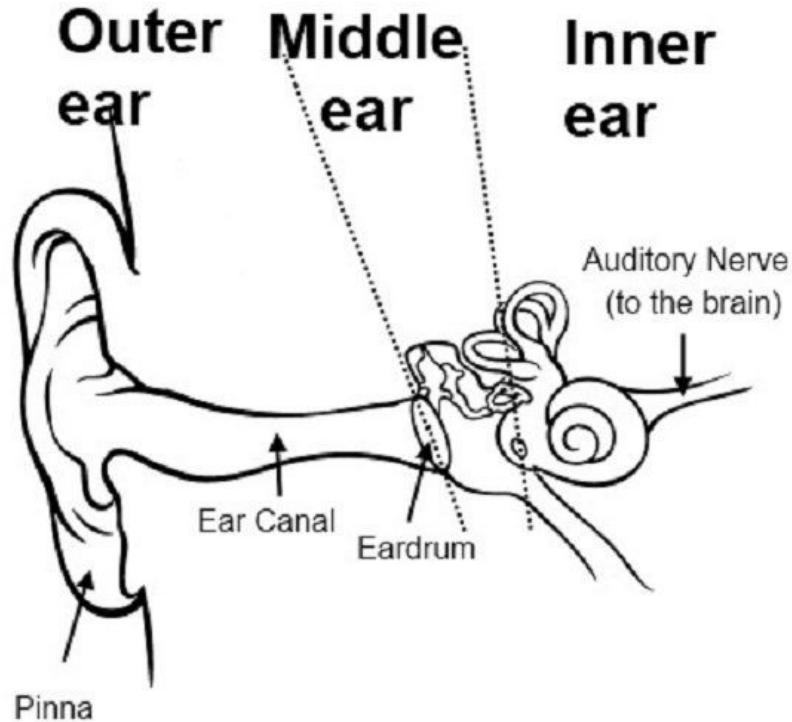
Practice #2 answer:



The dolphin emitted a sound wave using its nose or mouth that travels in the water. It bounces off the fish and returns to the dolphin, letting the dolphin “hear” the fish.

Practice #3:

Name the purpose and benefits given from each part of the human ear. Remember, humans are animals too!



Practice #3 answer:

Outer Ear: The function of the outer ear is to collect sound waves.

Middle Ear: The middle ear is the part of the ear between the eardrum and the oval window. The middle ear transmits sound from the outer ear to the inner ear.

Inner Ear: The hearing part of the inner ear and is called the cochlea. The cochlea is connected to the central hearing system by the hearing or auditory nerve. The cochlea is filled with special fluids which are important to the process of hearing.

Practice on your own:

On a piece of paper, draw a model to show how the sense of sound works in humans and animals.

Self Check:

Go tell someone in your home your answers.

1. Was this lesson?

- easy,
- just right
- hard

2. Share the model you drew from slide 11 with someone at home!

