

Day 5

SOUND USES AND APPLICATIONS
SOL 5.2c

Musical instruments vibrate to produce sounds. Different instruments have different parts that vibrate.

Brass instruments have vibrating columns of air. You have to blow on them to make a sound.

Woodwinds have a vibrating reed, or slim piece of wood, inside them to make a sound. You also have to blow into woodwind instruments to make a sound with them.



reed

Percussion instruments make a sound when their surface vibrates. You usually have to hit a percussion instrument with your fingers or a stick to get its surface to vibrate.

String instruments make sounds with vibrating strings. You pluck the strings or use a bow to make them vibrate.

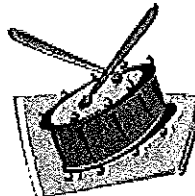
Some animals make and hear ranges of sound vibrations different from those that humans can make and hear.

Bats have use **echolocation** to hunt insects at night. When bats communicate normally, they make sounds that humans can hear, but when they are using echolocation to hunt prey, they make sounds at a higher frequency than humans can hear.

Whales and dolphins also use echolocation to help them "see" in the dark ocean waters. They use both higher and lower frequencies that humans can hear.

The shape of **dogs' ears** and the ability to move them around give dogs the ability to hear more than 2X better than humans. They can hear sounds at a higher frequency than humans.

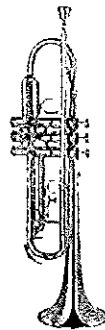
Label each instrument below *brass, woodwind, percussion, or string.*



percussion



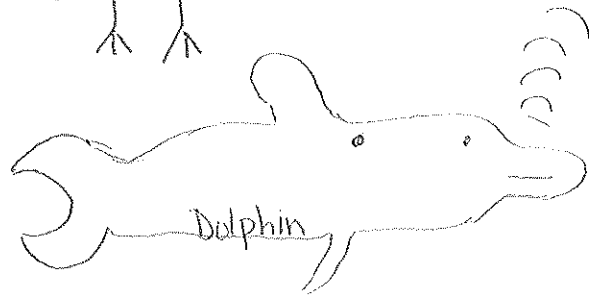
woodwind



brass



string



Dolphin