

Name_____

What is Sound?

Sound is a type of energy made by _____.

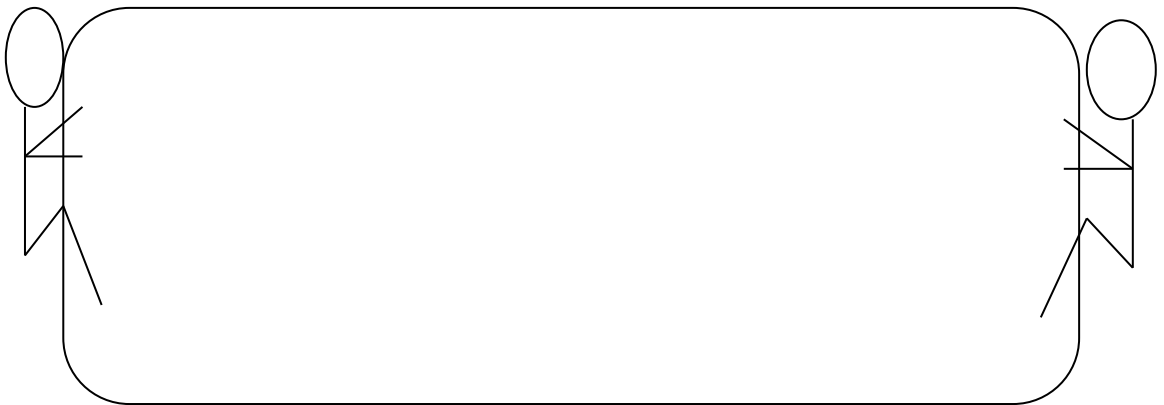
Describe how an object vibrating creates sound.

The material a wave travels through is called a _____.

STATION 1: SURFS UP!

Draw what the slinky looks like while it is moving. Include arrows showing the direction of motion.

Side View



**The WAVE you see is showing _____
moving through the slinky!**

STATION 2: CANNONBALL!

Draw what happens to the marbles.



Describe what you see happens to the marbles.

Explain why you think this happened in your booklet.

STATION 3: RUBBER BAND VIBRATIONS

What do you hear when your partner plucks the center of the rubber band?

What do you see vibrating? _____

Now repeat this with the thick rubber band. What do you notice is the difference in sound between the thick and the thin rubber band?

STATION 4: SINGING RULERS

Did you see the ruler vibrate? _____

Did it make a sound? _____

How does the sound change when you move the ruler so less is hanging off the edge? _____

STATION 5: TUNING A FORK?

What do you observe when you brought the tuning fork near your ear and listened? _____

What do you observe when the tuning fork was placed in the water?

STATION 6: SALT DRUM

What happens to the salt on the drum? _____

Why is this happening? _____

Make a connection: When you bang a drum and make a sound, something is vibrating all the way to your eardrums- what is it? _____

STATION 7: STRAW MUSIC

Describe the sound you hear through the straw. Is it high or low?

What can you think of that also sounds like that? _____

Predict: What can you do to the straw to change the pitch?

Record below what you tried and how the pitch changed.

Describe how you changed the straw.	How did the Pitch Change (HIGHER or LOWER)

ACTIVITY 8: TAP-TAP-TAP...

Which time did you hear the sound of our tapping finger louder?

Based on this experiment, does sound travel better through solid materials

(table) or gas materials (air)? _____

Why do you think sound travels better through this material? _____

STATION 9: RUBBER, STRING OR METAL?

Through which medium (string, rubber or metal) did you hear the sound of the vibrating coat hanger best? _____

Why do you think that material transferred sound best? _____

STATION 10: TELEPHONE

Which works better: When the string is TIGHT or LOOSE? _____

Why do you think this is? _____

QUESTIONS ABOUT SOUND?

Now that you have completed these activities, what questions do you still have about sound?

Find out the answers!

Name _____

DESIGN YOUR OWN MUSICAL INSTRUMENT!

Use recycled materials (or things you find around your house) to create an instrument that vibrates and makes sound. The design should include a way for you to change the pitch of the sound.

MATERIALS USED:



DRAW YOUR DESIGN:

A large, empty rectangular box with rounded corners, intended for drawing the design of the musical instrument.

EVALUATE:

What was difficult about making an instrument?

What would you do differently next time?