



EXPERIMENTING WITH SOUND

At Home Edition - #MCMAtHome

Let's introduce sound!

What is sound?

- Sound is energy made by vibrations.
- Sound travels by particles bumping into each other as they vibrate creating a wave.

Sound travels differently through all types of matter:

- Gas: Sound moves slowest through gas because gas particles are far away from each other and it takes more time before they bump into each other.
- Liquid: Sound moves faster through liquid because particles are closer together. Sound travels 4 times faster through liquid than air.
- Solid: In a solid, sound travels the fastest because the particles are even closer together than in a liquid!

Feel sound!

- Put your hands on your throat.
- Hum; what do you feel?
- Stay silent; what do you feel?

Sound Stations

Station 1: See the Beat

- Set Up:
 - Gather materials: Bowl, plastic wrap, rice, drum and mallet (pot and wooden spoon)
 - Place plastic wrap tightly over the top of a bowl. Put dried rice or other small, light objects on top of the plastic wrap. Find an object that will serve as a drum and a mallet. A pot and wooden spoon will suffice.
- Experiment:
 1. Hold the drum near, but not touching, the bowl.
 2. Hit the drum with the mallet.
 3. Observe the grains.
 4. What happens when you hit the drum harder?
 5. What happens when you move the drum farther away?

Station 2: Underwater

- Set Up:
 - Gather materials: Bucket, rocks, water
 - Get several rocks that you can tap together. Fill a bucket with water.
- Experiment:
 1. Tap the rocks together and listen to the sound they make.
 2. Hold the rocks underwater and tap them together again.
 3. How are the sounds different?
 4. Why do you think that is?

Station 3: Knock Knock

- Set Up:
 - Gather materials: Yourself, a family member, a table
- Experiment:
 1. Have a family member sit on the other side of a table.
 2. Gently knock on the table.
 3. Then, place your ear on the table as your family member gently knocks again.
 4. Try it several times.
 5. Which is louder?
 6. Why do you think that is?

Station 4: Mystery Sound Game

- Set Up:
 - Gather materials: Containers you cannot see through, objects from around the house
 - Put different objects inside of your containers, keeping it a secret from the guesser. Each container should have the same kind of object. (Example: container 1 - cotton swabs; container 2 - crayons; container 3 - Legos)
- Experiment:
 1. Set up all the containers.
 2. Have the guesser shake each container.
 3. Give them three guesses per container.
 4. How many did they get right?
 5. Switch and have the guesser place new objects inside the containers.

Want more?

Check out our **Kazoo Time** activity sheet for another creative, fun sound activity!
Be sure to take pictures or videos and tag #MCMAtHome