

VIRTUAL CHILDCARE PARENT SUPPORT SERVICES

VOLUME #109 SHAKE IT UP – LISTENING TO SCIENCE



Science helps children develop life skills, including an ability to communicate, remain organized and focused, and even form their own opinions based on observation. Science also helps children develop their senses and overall awareness. Children are hands-on learners, and the world around them provides so many natural opportunities. Interacting with their environment will support their intellectual development. Our everyday world is full of sounds. Have you ever stopped to think about what sound is? In this newsletter, we provide activities that will help your child discover how sound travels and how our ears pick it up.

# **ACTIVITIES**INFANTS (3 -18 MONTHS)

#### **SOUND BOX**

#### **MATERIALS:**

- Baby rattles (you can make your own)
- A box

#### **DIRECTIONS:**

- Gather your child's toys and put them in a box.
- Let your child see what is in the box while still holding it.
- Put the box down in front of your child and observe what they will do.
- Comment on your child's actions. For example: when your child is shaking
  the toy you may say "Oh, it makes some noises", "This is a loud sound"
  etc.

**Click here** for more activities.

#### **TODDLERS (19 MONTHS - 2.5 YEARS)**

## **MYSTERY SOUND**

#### MATERIALS:

• Different objects such as keys, bells, a pen, a glass, etc.

#### DIRECTIONS:

- Have your child close their eyes.
- Ring a bell and ask your child to guess what the object is.
- Repeat making sounds using different objects such as jingling keys, clicking a pen, open and shut, tapping a glass, etc.
- Let your child identify the object of the sound.

**Click here** for more activities.

# PRESCHOOLERS (2.5 - 5 YEARS)

## MAKE MUSIC WITH A STRAW PAN FLUTE

The following sound waves experiment not only involves creating a fun musical instrument your child could play with, but teaches children how length can affect the pitch of sound waves.

#### MATERIALS:

- At least 9 or 10 straws, more if desired.
- Scissors
- Clear tape

#### DIRECTIONS:

- Take the straws and line them up side-by-side and cut them at an angle at the top.
- Tape the straws together to make a pan flute.
- Encourage your child to blow through the straws. Which straws make higher and lower pitches? Why?
- Feel free to use more straws and experiment with different lengths to produce different pitches and sounds.
- Ask your child to explain what happens to the sound when the straw is cut shorter, and create double pan flutes to make harmonies to further explore how length alters the pitch.

Click here to learn musical instruments sounds.



# **JK/SK (4 - 6 YEARS)**

#### **HOW DO ECHOES WORK?**

#### **MATERIALS:**

- 2 paper towel tubes
- Pie pan

#### **DIRECTIONS:**

- Prop the pie pan up on a table so it is vertical.
- Take one paper towel tube and place it on the table, angled a bit but aimed at the pie pan.
- Take the other paper towel tube and have it angled the opposite way, also aimed at the pie pan.
- Have your child put their ear to one of the tubes while you talk softly into the other. You can hear what is said through the other tube.
- You create sound waves by speaking into the tube. They are directed through the tubes, hit the pie pan, and bounce off, traveling back through the other tube. You are hearing the echo.

<u>Click here</u> to read "Little Beaver and the Echo" by Amy MacDonald.

## **SCHOOL-AGERS (6 - 12 YEARS)**

#### **SEE THE SOUND**

Sound vibrations travel through air, water, and even solid objects, but it is not possible to see the waves. What if we could see the waves in another way? This science of sound experiment makes sound more visible by forcing objects to react to the sound vibrations.

#### **MATERIALS:**

- Empty clear mixing bowl
- Plastic wrap
- Large rubber band
- Sugar crystals

## **DIRECTIONS:**

- Wrap a sheet of plastic wrap over the mixing bowl so that it is tight, and secure it with a large rubber band.
- Place a few of the sugar crystals on the top of the plastic wrap.
- Get close to the sugar crystal and say something loudly! What happens to the crystals? Do they move?
- Experiment with louder and softer words or sentences to watch the sugar crystals react to the sound vibrations.
- You might think it is your breath making the crystals jump and move, but it is actually the sound vibrations. Try different sounds besides ordinary speech and see how the crystals come to life!

Click here for more activities.



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## A TIP FOR TODAY

- Enjoy discussing the questions your child asks. Encourage them to share their perspective and observations.
- Responding with "What do you think?" or "I do not know but we can find out together" can stimulate more thought and additional questions. Explore and find the answers together.
- Encourage children to record their observations.
- Writing, drawing, or taking photographs are all ways to record observations - an important scientific skill. Such records allow children to keep track of what they saw, heard, questioned, or discovered.