

The Power of Sound

Ages 7 - 11

(Lessons can be adjusted for younger or older children.)

Materials Needed:

- TV and access to Youtube videos
- See materials for each experiment listed below

Key Concepts:

1. Sound can create. 2. All of matter was created with the power of sound. In Genesis 1:3, "And God said, 'Let there be light: and there was light.'" 3. Sound is the movement or vibrations moving through waves in air or another medium. 4. Violet flame decrees, a gift from Saint Germain, move through these waves and can make positive changes in the world.

Preparation:

1. Arrange to show youtube videos.
2. Have equipment for science experiments set up in advance.

Lesson:

We are blessed with the understanding of freedom. What do you know about freedom? ***(Allow children to answer.)*** Yes, freedom is a flame and consciousness. We have that spiritual flame right in the Secret Chamber of our own hearts. It's called the threefold flame.

So how many of you would like to change the world so that everyone is free in the light? ***(Pause.)*** Can you think of ways that you can help change the world? ***(Allow children to answer.)*** Yes, tell people about their threefold flame and their right to freedom. Pray and decree. What gift has Saint Germain given us that would help change the world? ***(Pause.)*** Yes, the violet flame!

Today, we're going to learn how sound works. What is sound? Yes sound is vibration or movement and it travels through waves in the air

and through other mediums, such as water. Look around. Can you see any waves? We can't always see them but they are there."

The decrees that we give are vibrations empowered with the love from our hearts. Did you know that all of matter was created with the power of sound? In Genesis 1:3, "And God said, Let there be light: and there was light."

What is sound? (***Allow children to answer.***) Sound is vibrations that travel through the air or another medium and can be heard when they reach a person's or animal's ear. Let's begin by watching a video about sound. (This is a short youtube clip that gives a simple overview on sound: https://www.youtube.com/watch?v=_vYYqRVi8vY)

We are now going to do a few experiments that teach some basic concepts about sound. **[You can do experiments as one lesson or several lessons.]**

Experiment: Sound Waves:

Materials: At least one Slinky for demonstration or one for each pair of children

Sound travels as a compression wave through the air. Sound can travel a long distance while the air molecules themselves travel only a short distance. I will demonstrate using a 'Slinky' ".

Experiment that you will demonstrate with a student: Hold one end and a student the other. Stretch the slinky to almost its full length. Holding your end of the slinky in the palm of your hand, give a rapid push on the slinky, followed by an equally rapid pull. This will produce a compression pulse that travels the length of the spring.

OPTIONAL – Second experiment: Already have another ‘Slinky’ to the wall using tape. Send a compression pulse down the slinky as in the above experiment. Ask the students to watch for a reflection of the pulse coming back.

Experiment: Rhythm of Sound

Materials: pie pan, rice, speakers, waltz and marching music and cd player or another way to play music

We know that sound is how worlds are created or destroyed. The rhythm of sound is the key. And rhythm can affect the chakras. A chakra is a spiritual center, like a chalice, in our etheric bodies that can hold God’s light.

“Each of these chakras, then, has a vibration and a keynote even as it has a crystal and a light. The heart is a three-quarter time. The base-of-the-spine chakra is four petals, four-four time. That is the disciplined time of the march beat. It is very exact.

“Believe it or not, the 4/4 is a rhythm whereby we learn to crawl, we learn to, to walk, we balance the spheres of the brain, the hemispheres and we are intended to find our balance.

“That’s why certain types of rock music hurts our bodies because the rhythm is not a pure beat like the $\frac{3}{4}$ and 4/4 time.

“Here is a science experiment that shows how the vibrations of sound affect physical objects. Here is a pan of rice. Watch the rice move as I play a marching song and then a waltz. You will see that the kernels follow the pattern of the rhythm of the music.” ***Put some rice kernels in***

a pie pan and place on top of speakers. First play a march and then a waltz as children watch the rice kernels march and dance to the music. (Children often like to stand and march and/or waltz during this time also.)

Experiment: Sound Pitch

Materials: some kind of geoboard or homemade instrument with various lengths of rubber bands, could also use a guitar

“Pitch refers to how high or low a sound is. Have you ever wondered why piano strings are different lengths? To create different pitch. You’ve probably noticed that guitars have different thicknesses, which also create a different pitch. When we talk, sing or decree our pitch goes up and down.

“Let’s experiment with these homemade instruments. You can see that there are different lengths and widths. See if you can make music with these.” *Allow children to work together with instruments.*

Experiment: Amplifying Sound

Materials: different sized balloons

“Have you ever wondered how a speaker works to make the sound louder? Amplifiers force the air molecules inside the amplifier closer together. When the air molecules are closer together, they become a better conductor (or carrier) of sound waves than the

ordinary air around us. When these balloons were blown up, the air molecules were forced closer together.

“Take a balloon, hold it close to your ear and tap lightly on it. What can you hear?” **(Pause.)** “Yes, despite you only tapping lightly on the balloon your ears can hear the noise loudly. Is the volume different depending on size of balloon?”

Permission is granted to copy and share this lesson in its entirety, including all copyright and contact information. This lesson may not be sold or used in any way to gain profit. Published by Montessori International. Copyright © 2015 Summit Publications, Inc. All rights reserved.