



TITLE: Marvelous Maracas

DESCRIPTION: Create your own maracas while learning about sound and vibration.

OBJECTIVE: Participants will assemble musical instruments (maracas) to explore how sound travels through objects.

STANDARDS:

NJ Preschool Teaching and Learning Standards:

Standard 1.1: Children express themselves through and develop an appreciation of creative movement and dance.

Standard 1.2: Children express themselves through and develop an appreciation of music.

NJ Student Learning Standards:

1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

KEY VOCABULARY:

Maracas, vibration, percussion, wave

ADAPTATIONS:

Adaptive scissors; pre-cut materials; use of rubber bands to secure handles for taping

DISCUSSION QUESTIONS:

What happens when you add more beans?

Is the sound different when you use rice instead of beans?

EXTENSION ACTIVITIES:

What other ingredients can you add to the maraca to make a different sound?

How do you think the sound will change with these new materials?

Can you name other percussion instruments?

What classifies an instrument as belonging to the percussion family?

How are percussion instruments different from string instruments? Woodwind? Brass?

MATERIALS NEEDED:

Plastic eggs

2 plastic spoons per maraca

Tape

Beans (dried)

Beads

Rice (uncooked)

Instructions for Marvelous Maracas

Step 1:	Cut three strips of tape 3-5 inches in length. The length of tape will depend on the size of the egg.
Step 2:	Fill the selected egg with rice/beans/beads, etc.
Step 3:	Close the egg with objects inside and wrap 1 piece of tape around the egg to secure the materials inside.
Step 4:	Place the egg between the spoons.
Step 5:	Wrap a piece of tape around the spoons and the egg.
Step 6:	Wrap another piece of tape around both handles of the spoons to make the handle for your maraca.
Step 7:	Repeat steps 1-6 to create additional maracas.

How sound travels:

- The four instrument families are the string, brass, woodwind, and percussion. The **maraca** is part of the **percussion** family.
- Sound is a type of energy created by **vibrations**. Sound can make matter (gas, liquid, solid) vibrate, and vibrating matter makes sound.
- This vibration is called a sound **wave**. The faster the vibration the higher the sound note. The slower the vibration, the lower note.
- Smaller objects require less force to move. Larger objects require greater force to move.

Low Note Sound Wave



High Note Sound Wave



The link below contains more information and materials to further extend understanding.

[Understanding Vibration and Pitch](https://nj.pbslearningmedia.org/resource/phy03.sci.phys.howmove.collage/understanding-vibration-and-pitch/)

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References:

Understanding Vibration and Pitch

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www.youtube.com/watch?v=6tYlor3r82M&t=610s