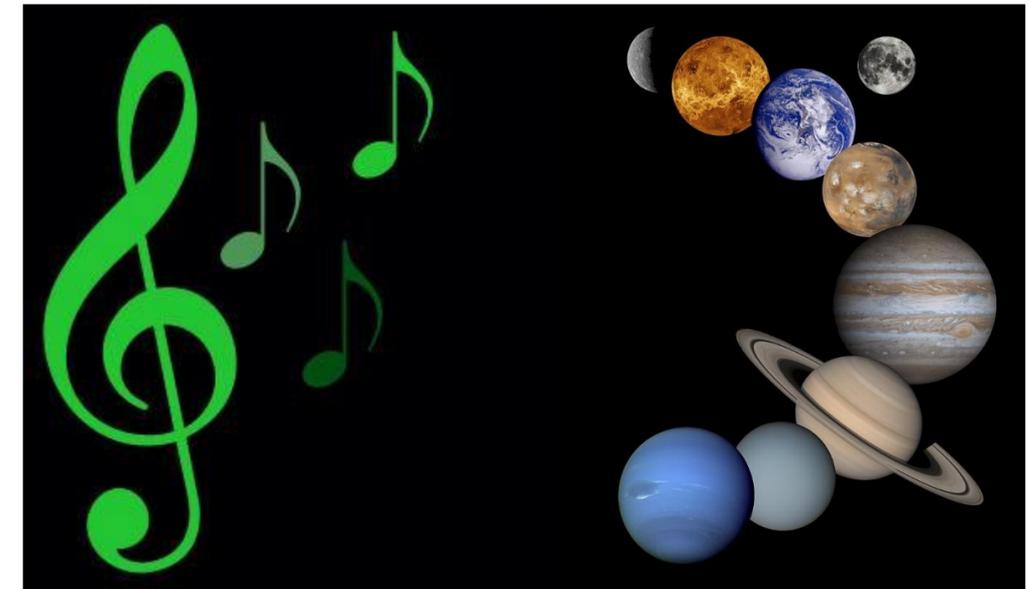


Cosmic Music

Design an instrument to play in space!

How are sound and music made?
Can you play an instrument in space?



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Activity Overview

In this activity students will explore how sound and music are made. Then they will use their engineering and design talents to create their own instrument, music and artwork!

Activity Background

Sound and music are made from vibration. Different instruments vibrate differently to create their own unique sound. How is playing an instrument different in space?



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Materials and Method

Students will view an astronaut playing guitar in space. They will see how vibration creates sound. They will be challenged to create as many instruments as they can using a set of materials. They will explore and create string, wind and percussion instruments. They will design their own instruments using the knowledge they have obtained from their explorations. They will write their own song and finally create a piece of artwork combining their instrument design and lyrics.

Activity

Click on this link to access the activity presentation!
https://docs.google.com/presentation/d/1wjRs87S-L0_GOrNOrYTdtiY87gFwDyqzo8TpbkNkeT4/edit?usp=sharing **(NEED TO ADD AS PDF INSTEAD ON WEBSITE?)**

Check out this article by NASA Science about Music on the ISS:

https://science.nasa.gov/science-news/science-at-nasa/2003/04sep_music#:~:text=A%20lot%20of%20astronauts%20play,instrument%20known%20as%20a%20didgeridoo

Activity Objectives

1. Students will explore the properties of sound.
2. Students will engineer instruments using a specific set of materials.

Keywords

Sound, Vibration, Music, Space, ISS

Standards

NGSS:

1-PS4 Waves and their Applications in Technologies for Information Transfer

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