

What is Music?

An At-Home STEM Lesson Plan Crafted by BGCHarlem STEM Specialist Chaelee Dalton



Image From [Shutterstock](#)

Happy National Music Month! What is the difference between sound and music? This week, we take what we have learned in the last few weeks about sound, pitch, and volume/loudness and apply a mathematical understanding of *rhythm* to better understand all that is behind music.

Next week, we will culminate the month in a project where we create musical instruments out of household materials.

If your child cannot read, read the text aloud to them. Ask them the questions and have them respond and/ or solve on a separate sheet of paper. If your child can read, simply give them the second page of this handout and have them read the text aloud or in their head.

Materials: Blank paper, pen or pencil, internet access/YouTube

Addresses Common Core Standards:

[CCSS.MATH.CONTENT.K.CC.B.4.C](#)

[CCSS.MATH.CONTENT.K.CC.B.5](#)

[CCSS.MATH.CONTENT.2.OA.C.3](#)

[CCSS.MATH.CONTENT.3.OA.A.1](#)

[CCSS.MATH.CONTENT.4.OA.C.5](#)

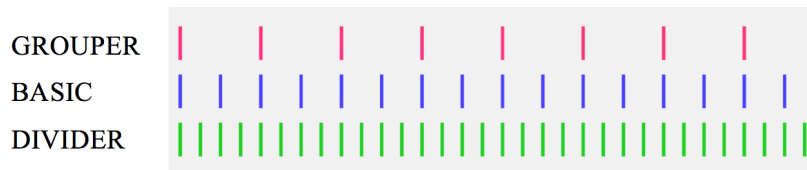
What is Music?

Let's begin by listening to two very different music videos:
[The Imperial March](#) and [The Oompa Loompa Song](#)!

Can you find a steady beat to clap along with the music?

Now, listen more closely. Can you find and keep time to a slower beat that fits with the music?

What about a faster beat?



Each group of colored lines represents a different beat in a rhythm.
How many **grouper** beats are there in total? ____

How many **basic** beats are there in total? ____

How many **divider** beats are there in total? ____

How many **basic** beats are there for every **grouper** beat? ____

How many **divider** beats are there for every **grouper** beat? ____

These beats have **proportional relationships**, meaning **their ratios are constant**, so there are 2 basic beats for every grouper beat, and 4 divider beats for every grouper beat.

If the **grouper** beat repeats **10** times, how many **basic** beats will there be? ____

If the **grouper** beat repeats **10** times, how many **divider** beats will there be? ____

What are some ways we can use our bodies/household items as the different beats?

I would use _____ to represent the **grouper** beat.

I would use _____ to represent the **basic** beat.

I would use _____ to represent the **divider** beat.

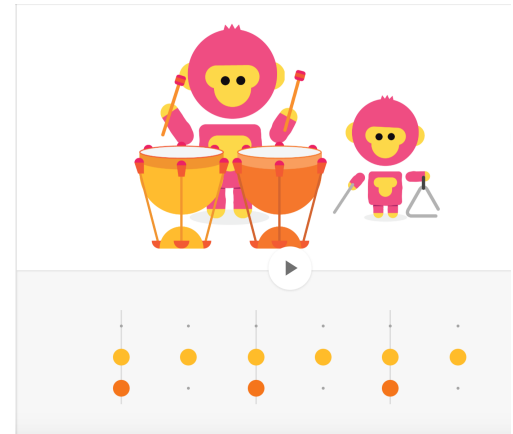
Try it out! You've just experimented with different **rhythms**.

We learned about **sound** as something that has both **loudness** and **pitch**. Sound, however, can be totally random. Music, on the other hand, often has multiple **beats** that create something called a **rhythm**. Rhythm is what helps us be able to dance to different types of music! Songs often have multiple **rhythms** and these rhythms are often proportional to each other.

Often, in music, rhythm is created by the **drum**. There are so many different types of drums that can work together to make different rhythms.

Let's go to this [link](#) to explore different rhythms that we can create with different virtual drum sets.

Make sure to check out at least two different drum sets, and experiment with the different sounds the drums make!



The dots at the bottom of the rhythm generator are like the lines we used earlier with the grouper, basic, and divider beats. Select the rhythm you'd like, and then press play! Let's start by making a **proportional rhythm**.

Decide a constant ratio you'd like to set between two different drums. For example, in the picture, the ratio is 1 orange: 2 yellow, because there is one orange drum beat for every 2 yellow drumbeats!

You can pick different drums or a different ratio. The important thing is to **make sure** the ratio is **constant**!

Write below or on a separate piece of paper:

My ratio is (number)_____ (type of drum) _____: (number)_____ (type of drum) _____.

In the bottom space, I have _____ (number) _____ (type of drum) total and

I have _____ (number) _____ (type of drum) total.

Then, have fun experimenting with different types of beats. Can you draw your favorite rhythm out like the grouper, basic, divider drawing, below?