



Hello, MIDI!

Discovery Activity

What is MIDI?

MIDI stands for Musical Instrument Digital Interface. It was invented in the 1980s and allows digital instruments – like an electronic keyboard – to communicate with computers. By sending information from a digital instrument to software on a computer, MIDI helps to capture musical ideas. Today, MIDI is used in the creation of almost every style of music!

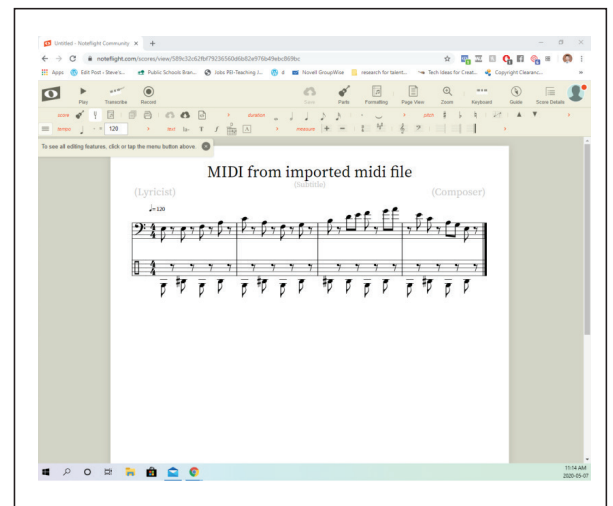
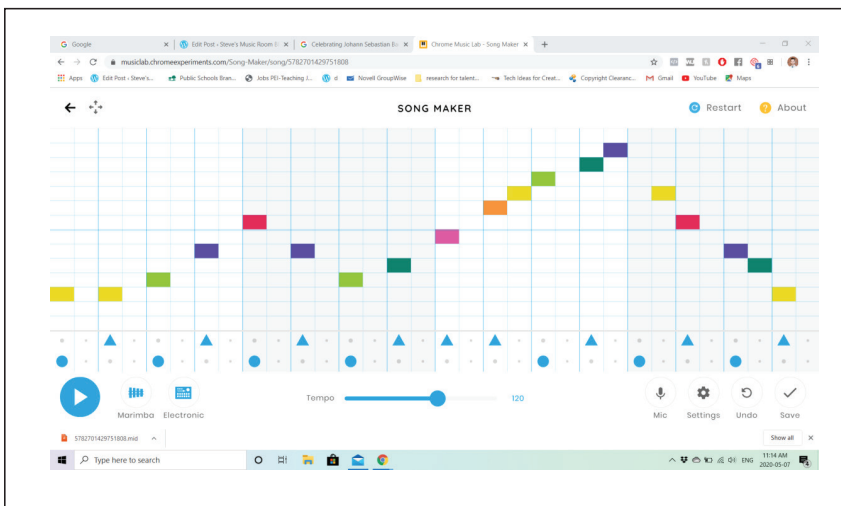


MIDI KEYBOARD WITH DRUM PADS (SOURCE: STEVE'S MUSIC ROOM)

MIDI only sends information about musical notes, not an actual sound recording of them. For example, when you press a key on a MIDI keyboard, a “note on” message is created that tells the computer which key was pressed and how fast. When you release that key, a “note off” message is created. This allows the computer to know the specific note (pitch), length (rhythm), and volume (dynamic) played.

MIDI messages can be captured in software like Finale and Noteflight, which writes out the notes played in standard musical notation. The MIDI messages can also be captured in software like GarageBand and BandLab, which allows you to experiment with the notes captured to create audio tracks.

AN EXAMPLE OF THE RESULT OF MIDI MESSAGES – CHROME MUSIC LAB TO NOTEFLIGHT



SOURCE: STEVE'S MUSIC ROOM

MIDI messages can be sent on 16 different channels. A different channel is typically used for each different-sounding instrument. Channel 1 could be for piano, channel 2 could be for guitar, channel 3 could be for flute, and so on.

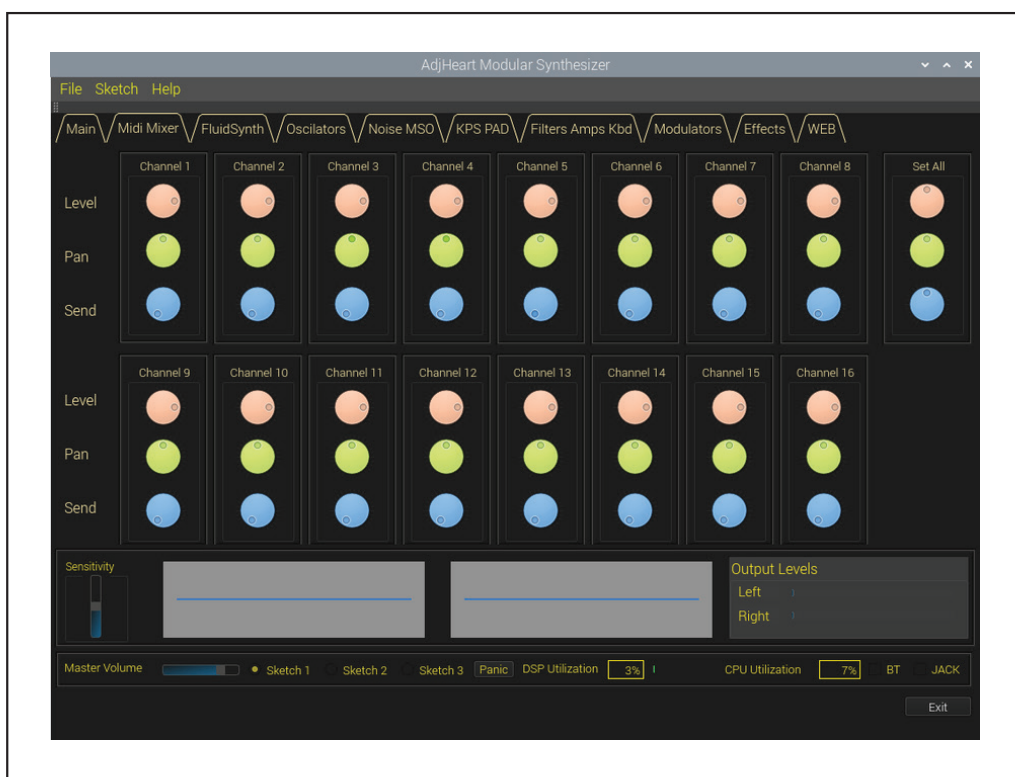
In addition to electronic keyboards, other types of digital instruments that use MIDI include synthesizers, drum machines, and electronic drum kits. By combining the sounds of many different types of instruments in one place, MIDI helps music-makers of all kinds to easily capture and refine new music!

Listening Activity

[Listen to the MIDI rendering of Kathryn Bostic's "Portrait of a Peaceful Warrior."](#)

Discuss the following questions as a group:

- What do you notice about the MIDI rendering?
- How might the MIDI rendering help a composer write a new piece of music?
- What do you think will be different about hearing an orchestra play the same piece of music?



**MULTIPLE CHANNELS LET
MIDI SEND MESSAGES
ABOUT MORE THAN ONE
INSTRUMENT AT A TIME.**