

Tech Tips for a More Effective RMM Classroom

Shana Kirk
Yamaha Corporation of America

Assess What You Have...

- Teacher computer
- Teacher iPad
- Projector
- AppleTV / Chromecast
- Student computers
- SmartBoard
- Student iPads
- MIDI keyboards
- Lab controller / Communication device
- The Internet



How will your students interact?

Classroom Design / Layout

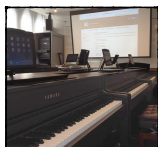
- one-on-one with you
- as an ensemble
- in small groups
- a combination of the above



Yamaha CVP 705 lab with LC-4 WiFi controller

RMM Tech Element 1: Keyboard Instruments

- Piano Realism?
- Orchestral Sounds?
- Apps / Software Integration?
- Space?
- Cost?



Clockwise, from left: Yamaha DGX-660 lab, “Clavinova Connection lab, Yamaha CLP-series lab, Yamaha CVP-series lab

RMM Tech Element 2: Displaying Content

Scores



Theory

Videos



Drawing

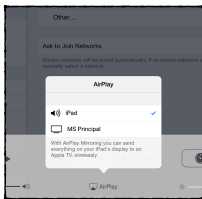
AppleTV
ChromeCast
Roku

WIRELESS SOLUTIONS!

- Airplay / AppleTV (Apple)
- ChromeCast (multi-platform)
- Roku (Android and Windows)



iPad Projects to Computer, Computer Projects to Display



- Connect Mac or PC to projector or monitor
- Make sure computer and iOS device are on the same network
- Run Reflector 2
- Turn on AirPlay with mirroring on the iOS device

Reflector 2: <http://www.airsquirrels.com/reflector/>

RMM Tech Element 3: Audio Management and Communication Controls



Sound Considerations

- Switching among solo, small group and ensemble playing
- Limiting disturbances to other classrooms
- Sharing audio from recordings, videos, Internet

Yamaha LC4 Lab System



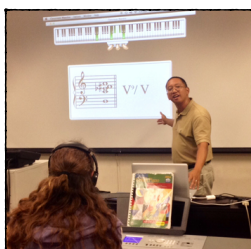
- Isolate or combine any combination of students
- Play audio (via AUX In)
- Control all audio and play from teacher station

Yamaha LC4: http://usa.yamaha.com/products/musical-instruments/entertainment/music_laboratory_system/lc4_music_lab/

RMM Tech Element 4: Integrating Apps and Keyboards



Classroom Maestro



- Display chords, scales, hand positions, and more directly from the MIDI keyboard
- No need to prep a board
- Students can see keys and notation / analysis

Classroom Maestro:
www.timewarptech.com

MIDI Connections for the iPad

There are several ways to connect a technology-equipped piano to an iPad. Choose your cables accordingly:

1. Get an appropriate cable to connect to either the **USB MIDI port of the piano** or the **MIDI In and MIDI Out ports**.
2. If the other end of the cable does not plug directly into your iPad, get the necessary adapter(s).
3. Seriously consider going wireless!

MIDI Connections for the iPad

1. Wired (usually adapters are needed)
2. Bluetooth LE MIDI
3. Network MIDI (Mac only)

App MIDI Settings

Make sure that your app knows to receive MIDI input from your piano and/or to send MIDI data to your piano.

HINT #1: Look for the Gear icon and choose your MIDI Input and Outputs.

HINT #2: Your keyboard must be plugged in and turned on before clicking the Gear icon.



MIDI apps typically require that you select your MIDI instrument as the designated MIDI In and MIDI Output device. Some apps may also offer "All" as a choice for MIDI input, which is fine, of course.

Bluetooth LE MIDI Settings

Option #1: If your MIDI app supports BT LE MIDI directly, use its BT LE MIDI settings to establish a connection.

Option #2: If your MIDI app does not BT LE MIDI directly, use the free MIDI-Mitr app to establish a connection.

Once the connection is established, go back to your app's MIDI settings and choose your BT LE MIDI device for MIDI input and/or output.



MidiMitr App: [https://
itunes.apple.com/us/app/midimittr/
id925495245?mt=8](https://itunes.apple.com/us/app/midimittr/id925495245?mt=8)