Call Me Maybe Lesson 3/3

Unit or Strand Title: ***Say Hello-Tools to Pro Tools!***

Lesson Title: ***Our First Recordings: Getting Creative***

Focusing Question: ***How can we make both live/acoustic recordings AND make digital MIDI recordings, choosing an instrument sound/patch of our preference?***

Description: Students will begin with their now-typical hardware setup routine, this time pluggin in their headphones—they're finally going to have something to listen to today! Teachers will lead students through making their first recordings, both with live audio, and with MIDI instruments, in time with a click track. At the end of class, students will be shown how to bounce the audio from their projects to their computers' harddrives, and will submit these audio files to blackboard for teacher review and assessment.

Lesson Objectives:

- SWBAT record-enable tracks
- SWBAT create a click tracka
- SWBAT properly connect an instrument plug-in to an instrument track
- SWBAT operate the transport window and all of its functions
- SWBAT operate the physical keyboard function of their MIDI controllers
- SWBAT successfully record live audio in a way that allows for the clearest possible quality and clarity
- SWBAT bounce the audio of their project to their computer's disk

Specific Content Knowledge:

- **MIDI**: *Musical Instrument Digital Interface*; a technical standard that describes a communications protocol (coding language) which assists the communication of musical information from analog to digital sources, a type of digital interface, and certain electrical connectors that connect a wide variety of electronic musical instruments, computers, and related audio devices for playing, editing, and recording music.
- **MIDI Controller**: Can be in the configuration of a keyboard, a drum-pad array, both, or other; a physical, playable tool that one uses to communicate their musical information to a digital program
- **Pro Tools**: a DAW (Digital Audio Workstation) program that allows one to produce musical projects through both live/acoustic recordings and MIDI/digital recordings
- **I/O**: Input/Output; describes the selection of the avenue through which musical data flows from the analogue realm into the DAW, and the selection of the avenue through which musical data flows from the digital realm back out through speakers, respectively
- **Cardioid**: a microphone orientation that describes a device that only receives sound that is emitted from a certain semi-circle-shaped range IN FRONT of the mic
- **Plug-In**: An insert that can be applied to certain types of tracks; plug-ins can function to affect a recording's EQ, dynamics, pitch shift, reverb, delay, modulation, harmonics, noise reduction, dither, aspects of sound field, etc., or to provide an instrument sound to be produced in response to one's MIDI controller input

Standards Addressed: MU.912.F.1.2: Incorporate or adapt new, emerging, or previously unfamiliar technology to create an innovative composition, music project, or related product.

Materials:

- MIDI controller

- MIDI controller cord (usually some form of USB)
- Focusrite Scarlett 2i2 Interface
- Focusrite Scarlett Male-Female XLR cord
- Focusrite Scarlett Cardioid Microphone
- Pop filter
- Headphones with quarter inch AUX jack
- Desktop or Laptop computer- Windows or IOS

Artifacts:
Students will, at the end of class, submit their projects as a bounced WAV file (the default file type in Pro-Tools) to blackboard, so that the teacher may hear their ideas and assess them on completion. Students must have both an audio recording and a MIDI instrument recording of any kind present in order to receive a full completion grade.

Assessment:
Students will be assessed informally by teacher observation of student participation. Primarily, however, students will also be formally assessed with a completion grade based on a bounced WAV file of their projects that they will upload to blackboard. Students must have both an audio recording and a MIDI instrument recording of any kind present in order to receive a full completion grade. If students are having trouble using their hardware or setting their input and/or output incorrectly, teacher will scaffold and assist them until they are successful. This lesson is slightly more independent and student-guided, as students will have the freedom to choose instrument patches and will be prompted to problem solve based on what they have learned so far, but the goal is still to have every student achieve success, rather than allowing them to possibly receive an unfavorable grade due to confusion; again, students experiencing how to do these thing correctly for the first time is the larger goal at hand.

Procedures:

- Teacher will lead students through their typical hardware-setup routine, emphasizing the new step of plugging their headphones' quarter-inch AUX jack into the audio port on the front of their interfaces
- Teacher will prompt students to attept finding the Pro Tools icon on their desktops indpendently, and either double-left-clicking it, or single-right-clicking it and selecting "open"
- Students will continue to be self-guided as teacher prompts them to once again seelct the "recent" tab on lefthand side of the "dashboard" window
- Finding their saved project (which should be named "MIDI.Controller.Test.[Last Name]"), and double-left-clicking on it to open it
- Once students' projects are open, teacher will remind them of the I/O settings that they set last time, refamiliarizing them with the drop-down menus, and how they differ between an audio track and an instrument track
- Teacher will ask the class about their previous exit ticket, and will lead a brief class discussion on how students were able to visually tell that their I/O settings were properly aligned with their hardware
- After the class comes to some consensus, students will be instructed to try and conjure this visual confirmation of connection once more, by toggling the red "track record enable" button one track at a time and playing around with the track's associated hardware (audio track and microphone, instrument track and MIDI controller)
- Projecting his own screen for all students to see, teacher will prompt studnets to follow along a brief step-by-step guide. Teacher will lead students through:
    - Finding the "Window" tab among the top row of tabs in Pro Tools, and single-left-clicking it
    - Finding the "Transport" button, and single-left-clicking it to conjure the "transport" window

- Teacher will give students a tour of all of the toggles and figures on the "transport" window, describing each of their functions
- Teacher will then take a small detour, continuing his step-by-step guide. Teacher will lead students through:
    - Just as before, finding the "track" tab among the tabs at the top of the Pro Tools GUI, and single-left-clicking on it
    - Once in the "track" window, finding the "create click track" button at the bottom of the drop-down menu, and single-left-clicking on it
- Teacher will briefly explain the function and purpose of a click track, along with the reason they are essential to the recording process
- Teacher will prompt students to combine prior knowledge with new knowledge by single-left-clicking the "track record enable" button on their mono audio track, followed by single-left-clicking the larger "record enable" button on the "transport" window
- Before asking students to record, teacher will instruct students on how to properly position their microphones and pop filters in terms of distance from their mouths, as well as how to adjust the "gain" knobs on their intefaces to an appropriate level based on the color that the knob flashes as their microphone picks up audio, so that they may record audio properly and cleanly
- Teacher will ask students to, one by one, single-left-click the "play" button on the transport window, and record something into their microphones for 8 beats, or 2 bars; all non-recording students will be instructed to remain silent until it is their turn
- Teacher will now notify students that they are about to do the same thing with their instrument tracks, but in order to do this, they must first attach a plug-in; teacher will discuss with the class what a plug-in is
- Continuing his step-by-step screen projected guide, teacher will guide students through:
    - Single-left-click the top blank space under the "Inserts A-E" section of their mono instrument track
    - Finding the "instrument" category of plug-ins, and single-left-clicking on it
    - Finding the plug-in "Xpand!2 (mono)" and single-left-clicking on it
- Teacher will now, once all Xpand plug-ins are open, prompt students to take note of their I/O settings from last class, emphasizing that all must remain the same, except for the drop-down menu that the class collectively identified as the "MIDI Output Selection", which must be switched from the name of their MIDI controllers, to the name of the plug-in they plan on using (Xpand!2)
- After students have figured out this I/O switch, teacher will take students through a quick tutorial of how to navigate the interface of Xpand!2
- Teacher will then give students 7 minutes to hit the red "track record enable" button on their mono instrument tracks, and explore the different instrument patches of Xpand!2 by plunking on their MIDI controllers' keyboards until they find something they enjoy
- After students have chosen an instrument sound, students will spend an additional 10 minutes figuring out something simple to play on their MIDI controllers and record over 2 bars that will fit in the musical context of what they recorded with their microphones
- When students have solidified what they would like to record, teacher will instruct students to single-left-click the the larger "record enable" button on the "transport" window, so that now both record enable buttons are toggled
- Students will press the "play" button on the "transport" window, wait for the count-in, and record whatever they came up with using their MIDI controllers

- Students will then, before the class' end, follow the lead of the teacher back up on the screen, as he leads them through:
    - Finding the "file" tab among the tabs at the top of the Pro Tools GUI
    - Finding the "bounce to" drop-down menu, hovering over it with their cursors, and single-left-clicking on the "disk" button
    - Navigating the "bounce" window
    - Once the "directory" has been set to the desktop of each student's computer, students will single-left-click the blue "bounce" button on the bottom right corner of the "bounce" window
- Before students leave, they will submit this bounced audio file to blackboard
- Finally students will find the "file" tab at the top of the program and click the "save" button, before finding the red X button at the top right corner and clicking it to close out Pro Tools for the day