# Create
# Music

## using
## Digital
## Learning
## Technologies
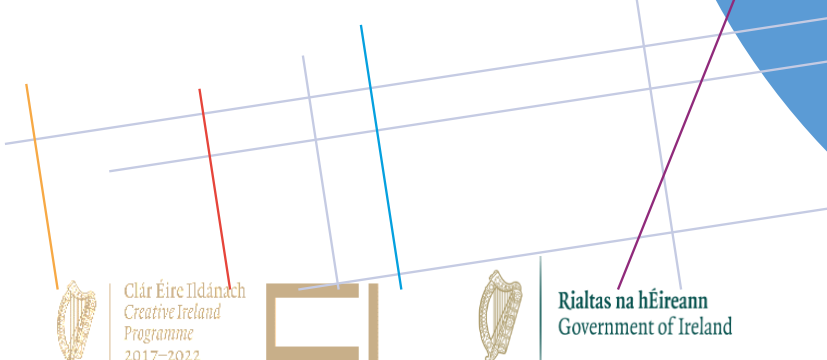
# Being Creative in Junior Cycle Music

An tSraith Shóisearach do Mhúinteoirí
**JUNIOR CYCLE** for teachers

## The student...

- **03** creates, appreciates and critically interprets a wide range of texts
- **04** creates and presents artistic works and appreciates the process and skills involved
- **08** values local, national and international heritage, understands the importance of the relationship between the past and current events & the forces that drive change
- **16** describes, illustrates, interprets, predicts and explains patterns and relationships
- **23** brings an idea from conception to realisation
- **24** uses technology and digital media tools to learn, communicate, work and think collaboratively and creatively in a responsible and ethical manner

**STATEMENTS OF LEARNING**

## CREATIVE HABITS

**COLLABORATIVE**
- ☐ working together
- ☐ giving & receiving feedback
- ☐ communicating effectively

**DISCIPLINED**
- ☐ developing the learning
- ☐ reflecting critically
- ☐ drafts and redrafts

**INQUISITIVE**
- ☐ wondering & questioning
- ☐ making connections
- ☐ new & challenging opportunities

**PERSISTENT**
- ☐ sticking with difficulty
- ☐ risk taker
- ☐ tolerating uncertainty

**IMAGINATIVE**
- ☐ from idea to realisation
- ☐ playing with possibilities
- ☐ exploring & investigating

Adapted from: Lucas, Bill (2016): A Five-Dimensional Model of Creativity and its Assessment in Schools, Applied Measurement in Education

## KEY SKILLS

- BEING NUMERATE
- BEING LITERATE
- MANAGING MYSELF
- STAYING WELL
- COMMUNICATING
- MANAGING INFORMATION & THINKING
- WORKING WITH OTHERS
- BEING CREATIVE

## PRINCIPLES OF JUNIOR CYCLE REFORM

- Creativity & Innovation
- Continuity & Development
- Wellbeing
- Quality
- Learning to learn
- Inclusive Education
- Choice & Flexibility
- Engagement & Participation

## Creating Music provides opportunities for students to…

- collaborate with others on creative endeavours
- express themselves in a non-verbal context
- communicate effectively and with confidence
- develop an understanding of the relationship between music and societies
- reflect on their progress and their musical choices
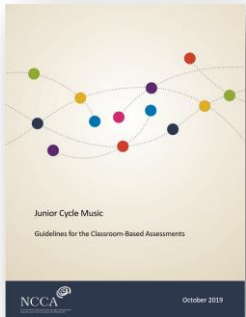
Underlying and informing the Composition Portfolio is a focus on the developmental nature of creating and composing, and on developing student's understanding of this creative and often imaginative process

…Assessment Guidelines, p.13

## The collection of student compositions promotes engagement when students…

- draw on their personal experiences and perspectives to develop, refine, showcase and seek feedback on their musical ideas
- identify and choose the stimulus for the creative work
- choose the format(s) in which to create the piece of music
- develop their ideas through engagement with other aspects of the music course
- collaborate through the discussion and exploration of ideas and motifs

## Digital Learning – Key Documents

Junior Cycle Music Specification

Junior Cycle Music Assessment Guidelines

Digital Strategy for schools (2015 – 2020)

Digital Learning Planning Guidelines

**Why** are we using digital technology to support the learning?

**How** might these tools support the learners and the learning?

**What** technology do we need to realise this learning?
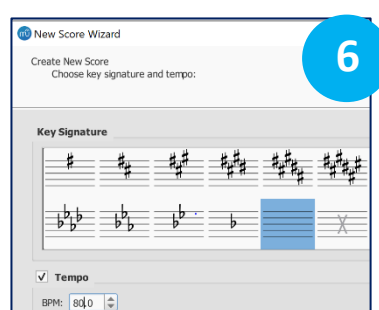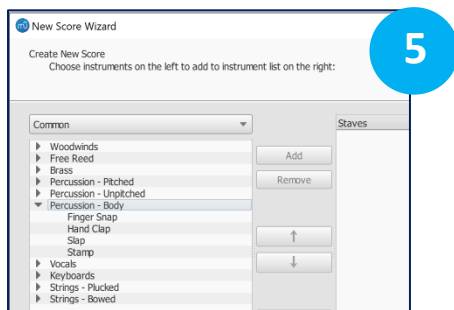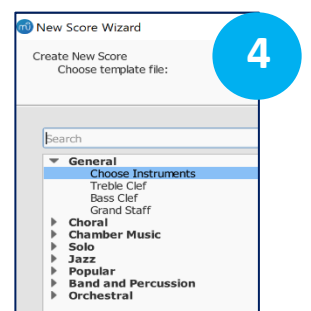
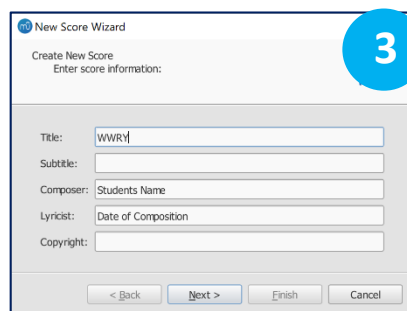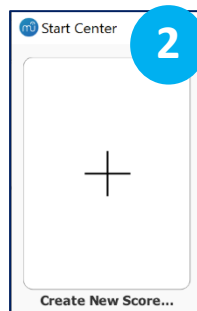# Support understanding of how to create music

**Evidence of Learning**
Create and play back a short musical phrase with an accompanying rhythmic ostinato

## g.co/songmaker

**1.1** compose and **perform or play back** short musical phrases and support these phrases by creating rhythmic/melodic/harmonic ostinati to accompany them

**1.5 read, interpret and play from symbolic representations of sounds**

**1.6** listen to and **transcribe rhythmic phrases of up to four bars and melodic phrases of up to two bars**

**2.1** experiment and improvise with making different types of sounds on a sound source and notate a brief piece that **incorporates the sounds by** devising symbolic representations for these sounds



## experiments.withgoogle.com

- Set Root Note to D
- Number of notes to 5
- Colour coded notes
- Play notes using the keys, mouse, face or body
- Notate using Musescore / Manuscript

**1.6** <u>listen to</u> and **transcribe rhythmic phrases of up to four bars and melodic phrases of up to two bars**



Musescore 3.4 Beta – latest version update December 2019

1. Input four-bar melody using Mouse, Qwerty or MIDI interface
2. File – Export – Save as type mp3 – Save into named Class Folder e.g., JC 2021 Aural Skills
3. Open Audacity / Garageband – Create Click Track
4. Import mp3
5. You can now share mp3 with your students via email and/or virtual learning environment (VLE) for students to independently practise their aural skills
6. For student aural skills worksheet, go back into MuseScore - Make notes in Bar 3 invisible – select note + press V
7. Students will use this file while listening to their MP3 file to fill in the missing melody and rhythm in bars 3 and 4

**To progress the Learning: Students may…**
- transcribe the complete four bars into their music manuscripts (music literacy)
- go on to create their own 4-bar melody through listening and transcribing
- build up a database of melodic dictations and their own created melodies for their portfolios

| Build your Digital Skills www.jct.ie | How to apply a Plugin How to Import and Export an MP3 |
|---|---|

**Develop creative ideas through engagement with other aspects of the course**

**1.12 indicate where chords changes occur in** extracts from a selection of **song**s

**2.4 rehearse and present a song** or brief instrumental piece, identify and discuss the performance skills and techniques that were necessary to interpret the music effectively
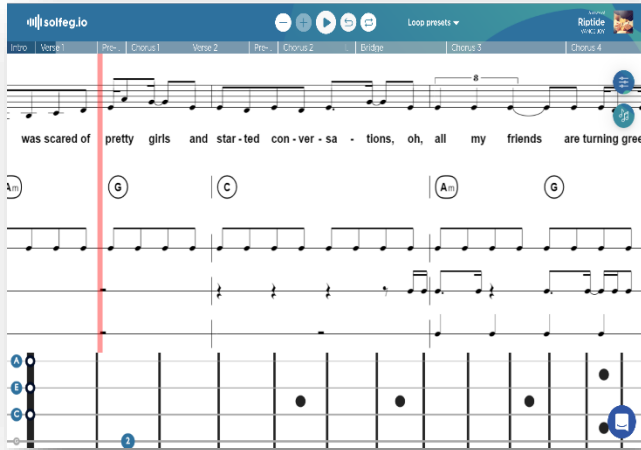
# Solfeg.io

1. Choose Song – Search by name or filter
2. Select Instrument – rhythm, chords, vocal
3. Select *Visual Controls* to confirm instrument visuals and chords
4. Select *Sound Controls* to mute tracks for backing track use
5. Start playing

**2.8 analyse the chordal structure of** excerpts from **a** range of **song**s and compile a list of songs with similar chord structures and progressions
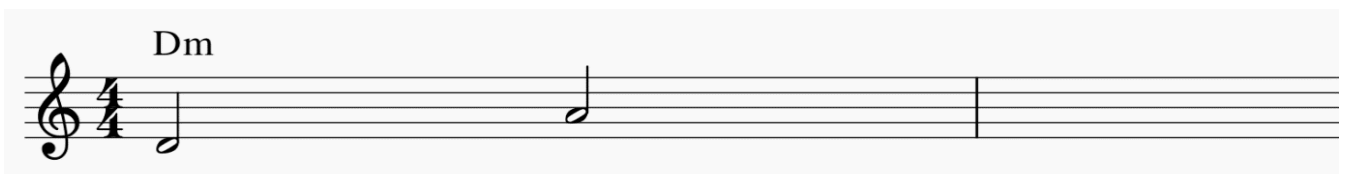
**Evidence of Learning**
Listen to your favourite song. In pairs choose chords to fit your song. Perform or Play back your chosen chords.
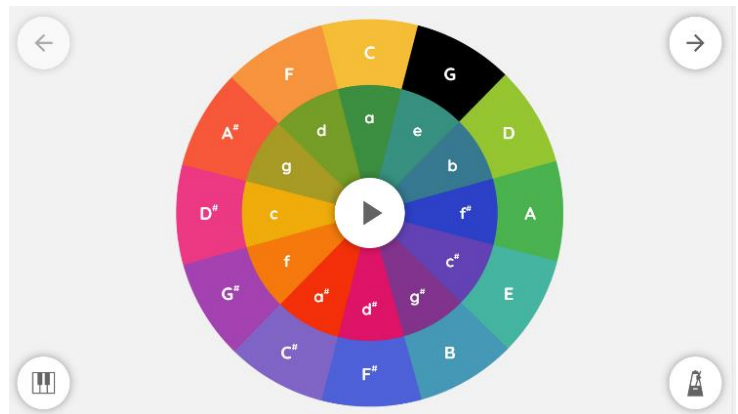
**musiclab.chromeexperiments.com**

**Support understanding of how to create music**

Dm

**Compose the next note.**
**Choose a chord to play with this note.**

**3.9 investigate the influence of processing effects** (e.g., distortion, reverb, compression) on the recording process; select some recordings and evaluate the use and effectiveness of such effects within them

**1** Soundtrap (—)

♫ Enter studio

**2** Demos

One man choir

Dubstep | Podcast | One man choir

**3** Play and listen

**4**

Show Instrument

VOCALS 1
R | Vol

VOCALS 2
R | Vol

VOCALS 3
R | Vol

VOCALS 4
R | Vol

Mute tracks 2, 3 & 4

**5** Show Instrument

**6** Effects

Vocal Amp ⌄

Tone | Reverb | Pan | Volume

**7** Add Effect

- ## Processing effects

  A series of mechanical or technological operations on a recording process that modifies the original sound inputted

- ## Compression

  A processing effect used in mixing or recording to control and reduce the dynamic range of the music

- ## Reverb

  A processing effect where the sound produced by an amplified musical instrument is made to reverberate; an echo effect used to recreate the natural effects of room reverberation

- ## Distortion

  Change in the form of an electrical signal or sound wave during processing; alter the sound of amplified electric music instruments and most associated with the electric guitar

Classic Dist | Fuzz | Overdrive | Auto Pan | Auto-Wah

Rotary | Stereo Chorus | Tremolo | Vibrato | 3D

Stereo Delay | Brighter | Compressor One | Dynamics Compressor | Equalizer

## Build your Digital Skills
## www.jct.ie

Using Digital Learning Technologies in Junior Cycle Music
## How to apply a Processing FX

**Notes**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

**3.3 make a study of a particular contemporary** or historical **musical style**; **analyse its structures** and use of musical devices, and describe the influence of other styles on it
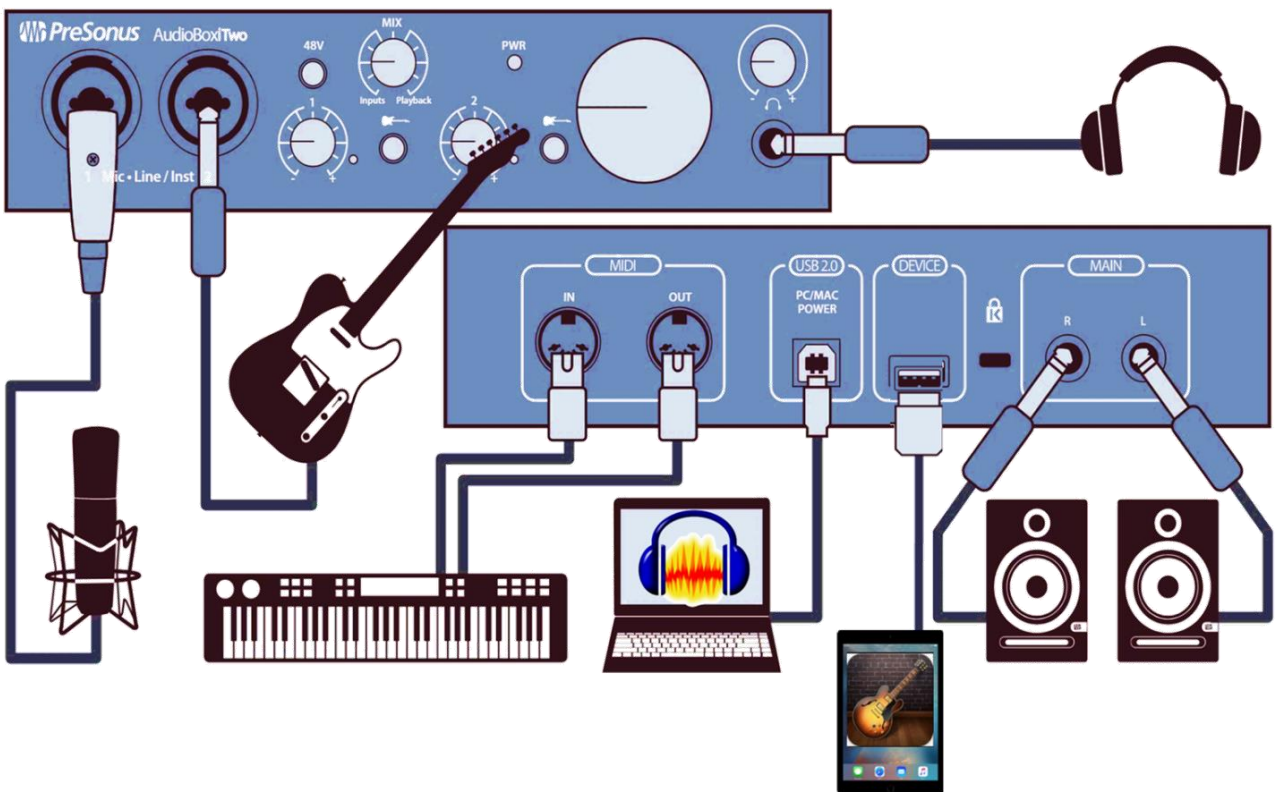
**Evidence of Learning**

**Create a piece of music**

**in the style of the blues**

| C | Eb | F | F# | G | Bb | C |
|---|----|---|----|---|----|---|

c | D | E | F | G | A | B | c | D
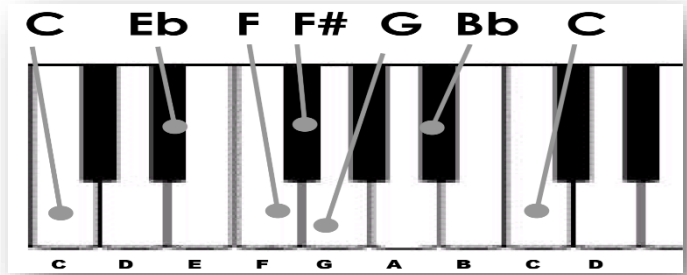
| I | I | I | I |
|----|-----|---|---|
| IV | IV | I | I |
| V | IV | I | I |

▶ **Experience the learning using Extension Hardware**

# Support understanding of how to create music

## Evidence of Learning
Compose and record an advertising jingle for radio (15 secs) or TV (30 secs) for *'Krispey Kreme'.* Record your jingle.

**3.4 compose** and perform **an original jingle** or brief piece of music **for use in a new advertisement for a product**, and record the composition
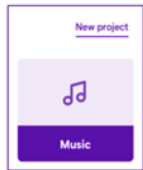
### Loops

| Originals | Beats | Drums |
| Guitar | Synth | SFX |
| Pop | Rock | EDM |
| Sounds | New | My Loops |

Piano - White 3 [C]
Piano - White 2 [C]
Piano - White 4 [C]

Shaker - Samba 1
Tambourine - Basic A 2
Bass - Golden Feet [C]
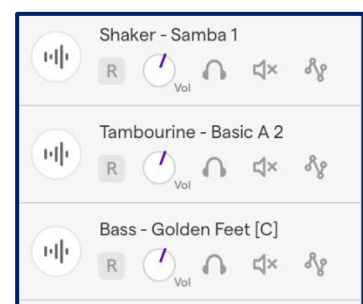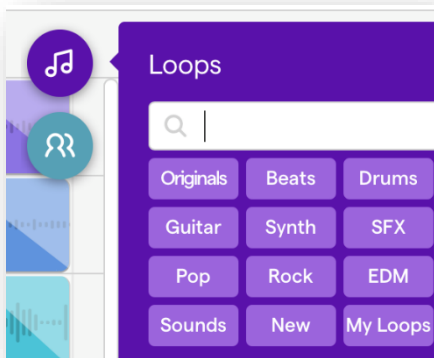
**1.2 create and present a short piece, using** instruments and/or **other sounds in response to a stimulus**

**1** Soundtrap [-] Enter studio

**2** New project — Music
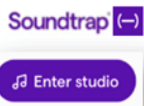
**3** Select loops - drag and drop into your piece
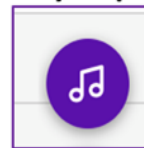
**4** Add track for vocal line — + Add New Track
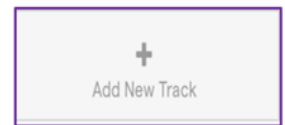
**5** Select voice & microphone — Voice & microphones

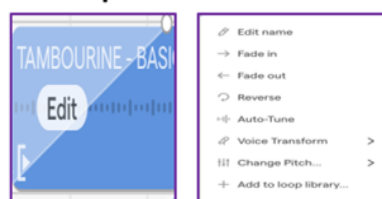**6** Record your vocal track — Start Recording
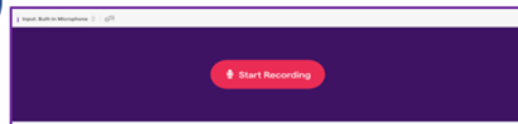
**7** If you are recording into the track, make sure that **R** is ticked — Mic
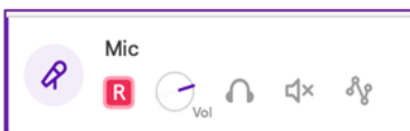
**8** You can place in fade in & fade out
- Edit name
- Fade in
- Fade out
- Reverse
- Auto-Tune
- Voice Transform
- Change Pitch...
- Add to loop library...
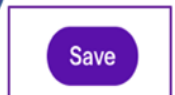
**9** Save Project — Save

## Build your Digital Skills
www.jct.ie

Using Digital Learning Technologies in Junior Cycle Music
### How to edit Video

# Software to support the learning

| | | |
|---|---|---|
| **Musescore** | Cross-platform notation software and open source. Supports a wide variety of file formats and input methods | **Enables students to…**<br>• Create, input and notate their own music<br>• explore speed, time signatures, instruments, repeats, loops<br>• add melody, bassline and accompaniment<br>• listen to what they have created and make musical edits |
| **Audacity** | Cross-platform audio recorder and editor Free and open source | **Enables students to…**<br>• record live audio through a mic or mixer<br>• import, edit and combine sound files<br>• export recordings in many different file formats<br>• cut, copy, paste, splice or mix sounds together<br>• add processing effects including changing speed and/or pitch |
| **Garageband** | Garageband is Apple's sound recording and mixing software Compatible for macOS and iOS devices | **Enables students to…**<br>• explore realistic smart instruments<br>• create loops and explore existing loops<br>• build their own original arrangements<br>• Create using virtual drum kits and drag-and-done Smart Drums<br>• Add processing effects |
| **Chrome SongMaker** | Song Maker in Chrome Music Lab, is a simple way to make and share a song | **Enables students to…**<br>• sing live into computer microphone. SongMaker will recognise the pitch and notate accordingly<br>• create loops using a variety of rhythms and melody instruments<br>• set length, number of beats per bar and split beats |
| **Creatability Google Experiments** | A simple musical keyboard you can play with your face, body, mouse or keys | **Enables students to…**<br>• play and hear notes using the keys, mouse, face or body<br>• customise a scale and the number of notes on the screen<br>• control other instruments using a MIDI device |
| **Soundtrap** | Soundtrap is a digital audio workstation accessible directly in any browser Free cross-platform music software | **Enables students to…**<br>• collaboratively create and edit music projects<br>• select from a choice of inputs: computer mic, importing sounds, connecting MIDI devices or Soundtrap's built in instruments<br>• explore and create with a range of loops<br>• record, playback, change tempo and key signature<br>• experiment and apply a range of processing effects including distortion, reverb, compression, vibrato, chorus, delay etc |
| **solfeg.io** | Web-based audio player that simultaneously enables chords, rhythm and melody to be played | **Enables students to…**<br>• pick a song and practice the skill of performance<br>• decrease speed. Loop parts<br>• use lead sheets, tablature and lyrics<br>• create Backing Tracks for performance practice |
| **Flat.io** | Flat.io is a web-browser composition programme that allows you to create, edit and share music scores | **Enables students to…**<br>• collaboratively create and edit music<br>• search for arrangements of music in the library<br>• Create, input and notate their own music<br>• explore speed, time signatures, instruments and effects<br>• listen to what they have created and make musical edits<br>• export music to Soundtrap |

Please note the software listed here and its uses are not prescriptive or exhaustive

# Extension Hardware

| Audio-Interface | PreSonus Audiobox iTwo | Enables student to… |
|---|---|---|
| | • is used to make good quality home recordings. It is an external sound card with inputs for mics and instruments<br>• USB 2.0/iPad/Audio/MIDI Interface & Accessory Bundle<br>• 2x XLR/Audio jack inputs<br>• 2x Balanced ¼" TRS Line Outputs<br>• Stereo Headphone output<br>• 24-bit, 96kHz digital converters<br>• Class A Pre-Amplifier & +48V Phantom Power | • create quality recordings<br>• record instruments<br>• mix and master their recordings<br>• create Podcasts<br>• create sound effects for video<br>• connect to MIDI controller<br>• reduce recording lag time |
| **Microphone**<br><br>Three main types of microphone and each has its own unique sound and strengths | **1.DYNAMIC:** Versatile and will take wear and tear. Not particularly sensitive which makes them perfect for loud sources.  Useful for snare drums and guitar amps. They are cardioid meaning the mic picks up sound in the direction it is bring pointed and cancels out any sound coming from behind it. Can use dynamic mic on almost everything but be aware the sound will not be as accurate or 'pretty' as a condenser mic<br>**2.CONDENSER:** Powerful, more balanced, accurate and 'sweeter' sounding. Much more sensitive, which makes them perfect for softer and brighter sounds. Condensers give extra 'air' to what they pick up, making them sound less muffled than a dynamic. They have switches that change their patterns. Cardioid as before. Bidirectional, which picks up sound from the front AND back, while cancelling out sounds on the sides. Omnidirectional which picks up sound from all over, cancelling nothing. Two types: *Diaphragm* for full-bodied instruments and *pencil* for brighter instruments. **NOTE**: they need 48V of power to work (PhantomPower), make sure your interface has this option.<br>**3.RIBBON:** Most sensitive so meant to be used on softer sounds, like voice or strings. Fragile and can be expensive. They are bidirectional so better used in a room that is well treated to lower the amount of room sound that is captured.<br>For 'home' recordings dynamic and/or condensers mics should be sufficient. | |
| **MIDI Keyboard** | **M-Audio Keystation 49 MK3**<br>• USB powered 49 Key MIDI controller<br>• Software Addition: Pro Tools, Ableton lite etc<br>• A MIDI keyboard or controller keyboard is a piano-style electronic musical keyboard | **Enables students to…**<br>• record and input music into music software |
| **Headphone splitters** | • A headphone splitter is a device that allows two or more headphones to be connected through to one audio jack | **Enables students to…**<br>• Listen to, collaborate and edit pieces of music on the same computer |

## Keep the conversation going!