



建立未來技能： 以電子音樂創作為本的STEM教育

eMUSIC
X
STEM
FOR
Future



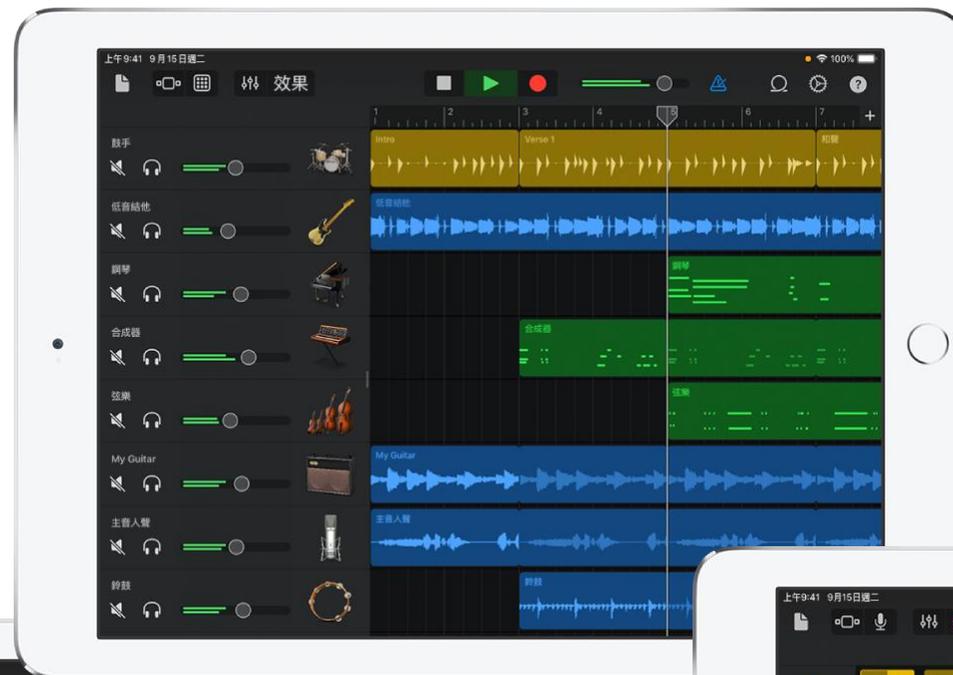
趙增熹先生



鄧文瀚先生
STEM Sir



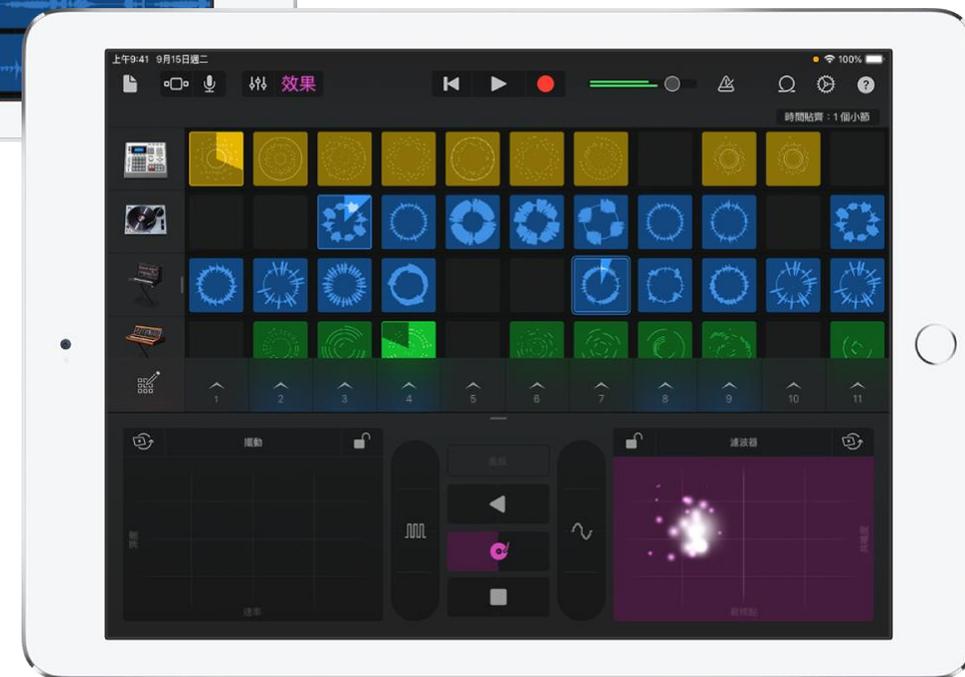
GarageBand



「音軌」顯示方式



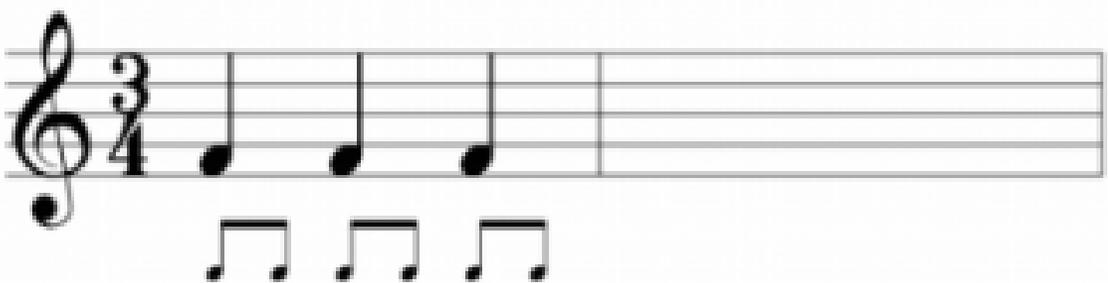
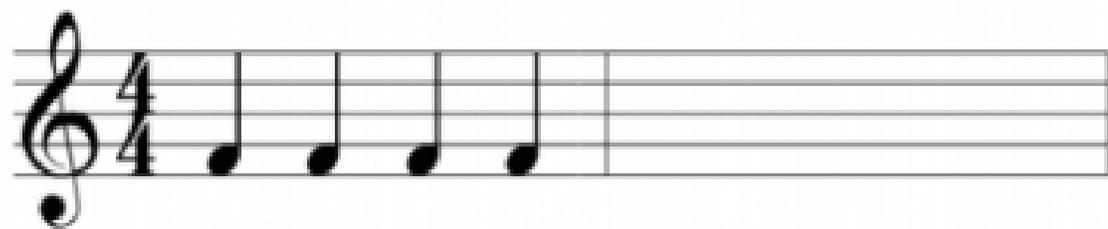
觸碰式樂器



現場循環樂段

創作電子音樂 與 數學和編程





3
4

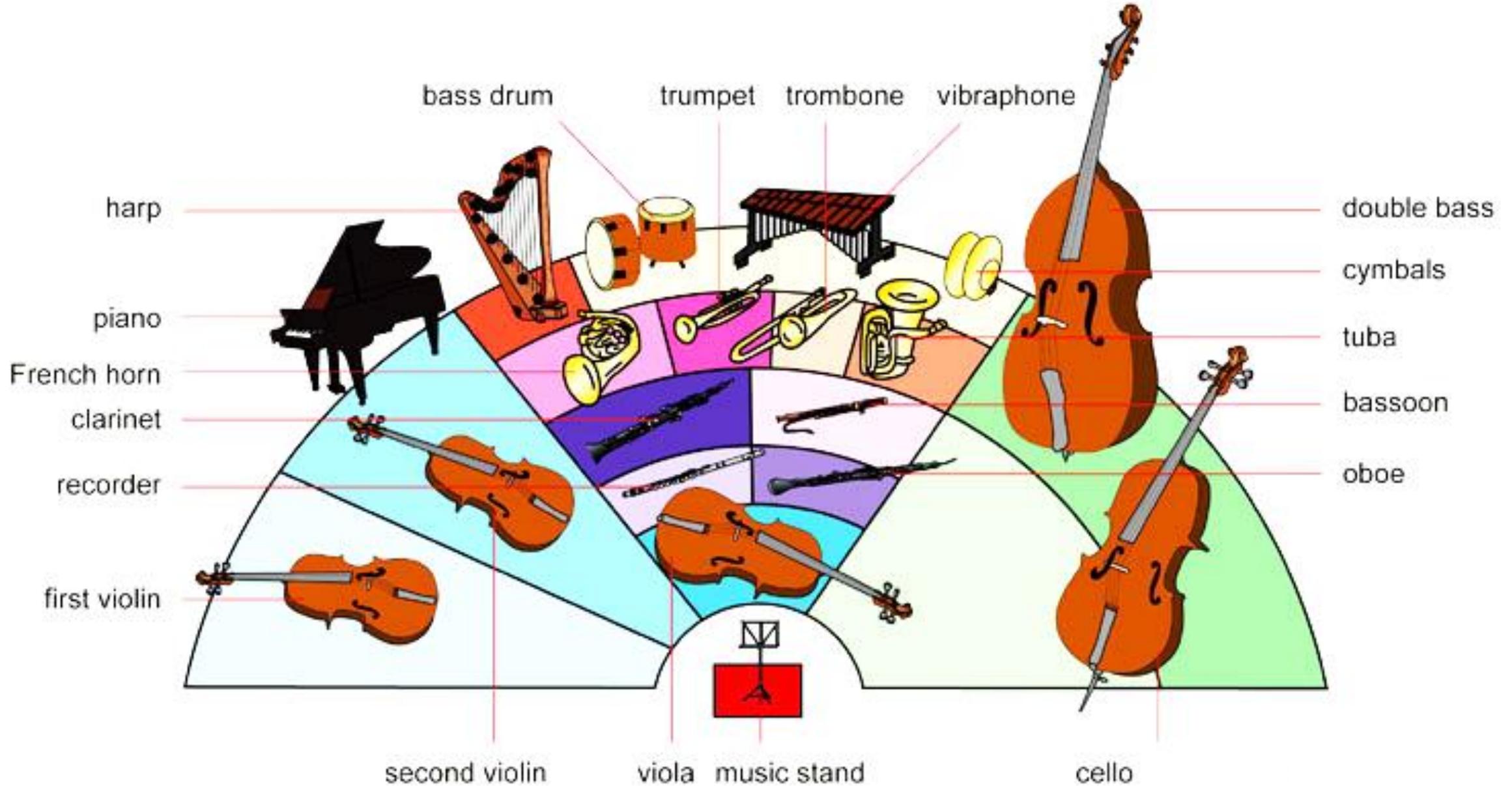
→ 每一個小節共有 3 拍

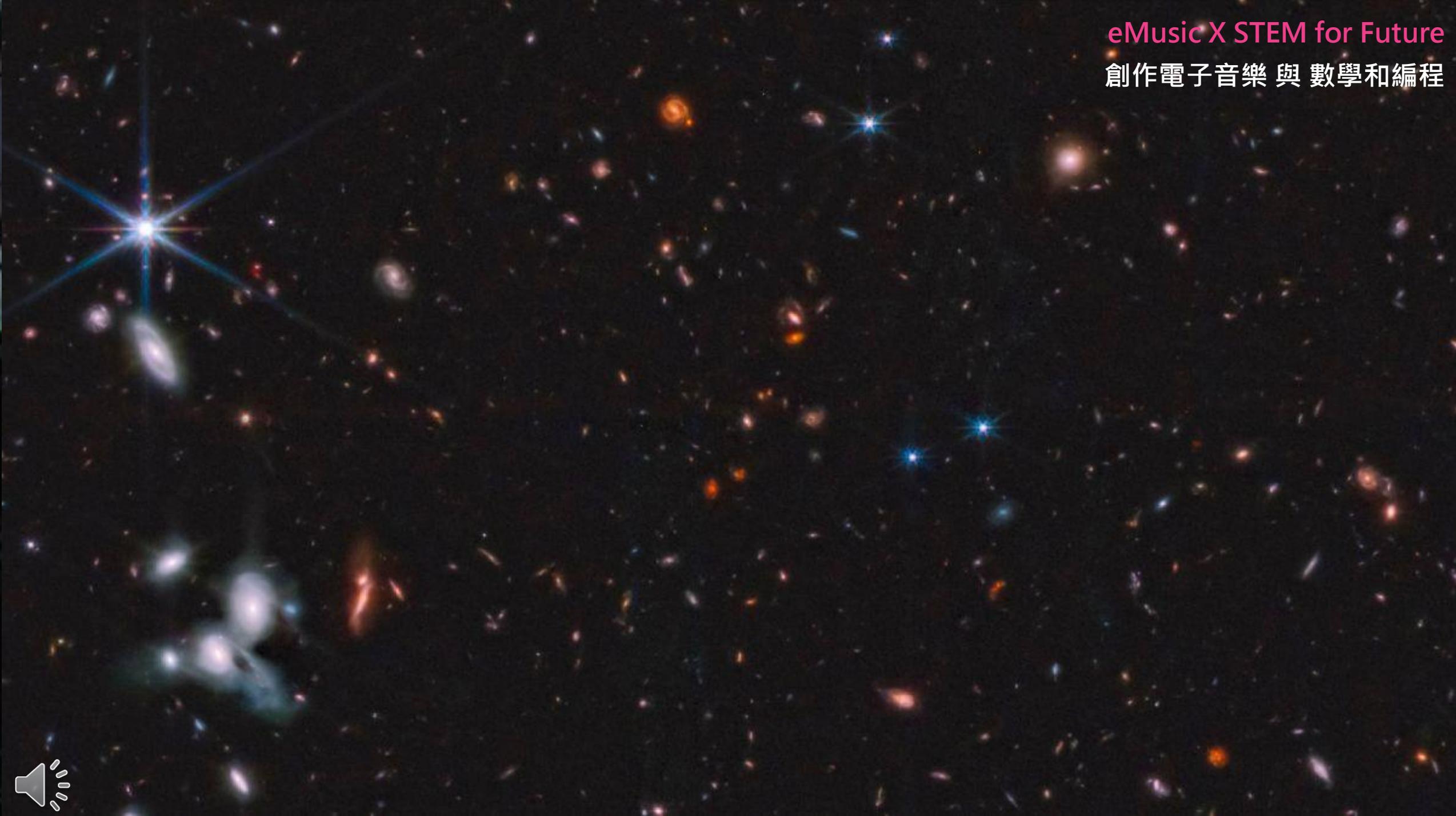
→ 以四分音符為 1 拍



SYMPHONY ORCHESTRA

eMusic X STEM for Future
創作電子音樂 與 數學和編程





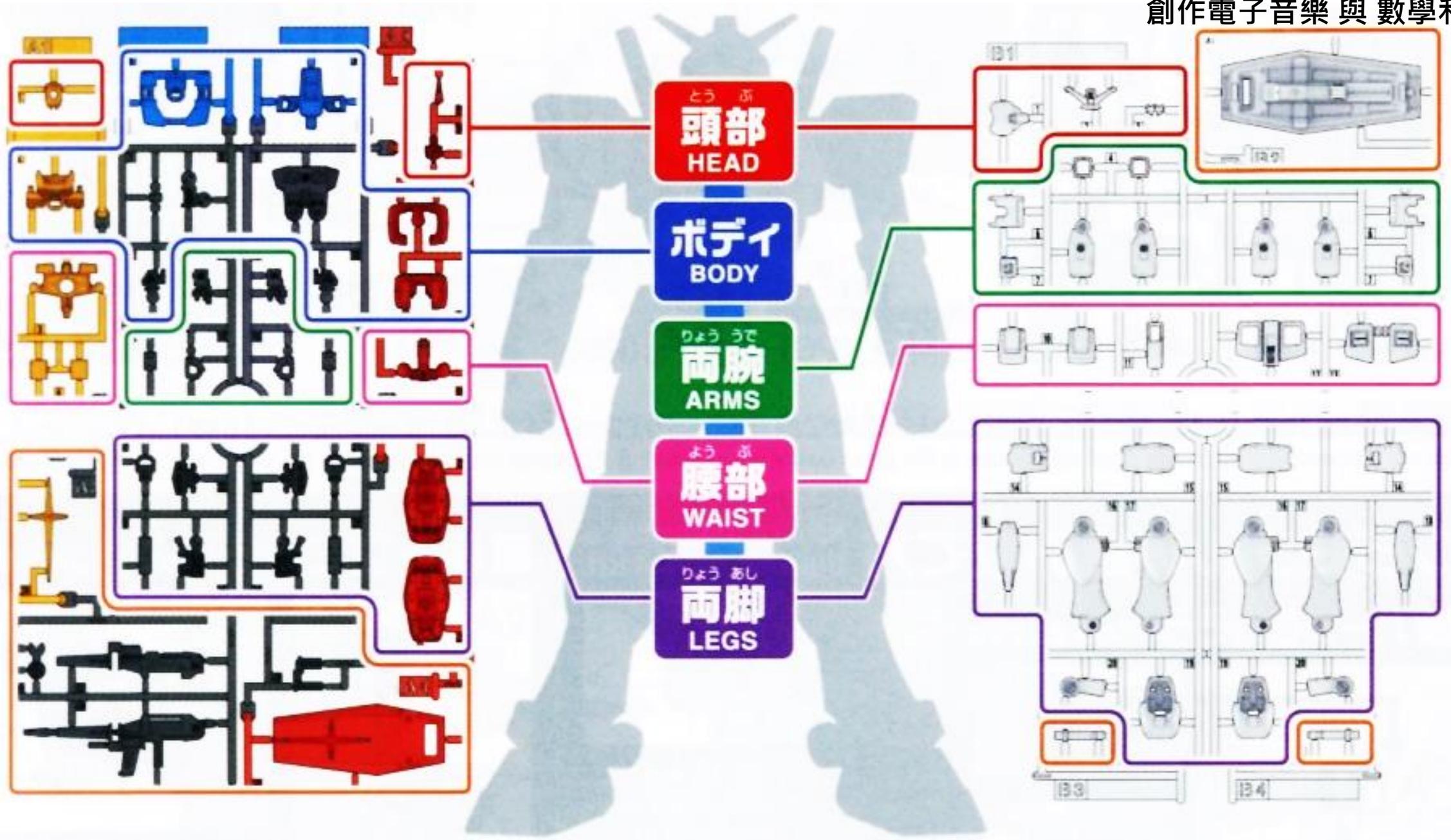
音樂如何能夠帶動到別人的情緒？
音樂如何能夠讓人產生共鳴？



eMusic X STEM for Future
創作電子音樂 與 數學和編程



**PERFECT GRADE
UNLEASHED**



1 頭部 HEAD

A1 1, B1 1, A2 16, B1 3, A2 15, B1 2

※ゆっくり取り外そう。
* Slowly remove each part.

2 ボディ BODY

A1 2, A2 6, A2 17, A2 18, A1 8, A1 5

パチン! Fit!

A1 7, A1 10, A2 10, B3 21, B4 21, A2 9

パチン! Fit!

※しっかり組み
合わせよう。
* Fit them together
tightly.

3 両腕 ARMS

2本 (2本作る)
x2 (Build two sets)

A1 11, A2 11, B1 4, B1 8, B2 8, B1 9, B2 9, A1 12, A2 12

4

先に組む
Assemble this part first.

1, 2, 3, B1 7, B2 7, A1 13, A2 14, B1 6, B2 6

5 腰部 WAIST

A1 4, B2 13, A1 4, A1 3, B2 12, A2 19, B1 11

6 両脚 LEGS

2本 (2本作る)
x2 (Build two sets)

B3 19, B4 19, A4 25, B3 20, B4 20, A3 24, A4 24, A3 23, A4 23

パチン! Fit!

※ゆっくり取り外そう。
* Slowly remove each part.

B3 15, B4 15, B3 14, B4 14, B3 16, B4 16, B3 17, B4 17, B3 18, B4 18, A3 22, A4 22

パチン! Fit!

7

先に組む
Assemble this part first.

A3 21, A4 21, B1 10, B1 10

先に組む
Assemble this part first.

4

バンダイプラモデルアクション
ベース5(別売り)差し込み用
ACB-5(別売り)に対応しています。
Compatible with ACB-5
connector for the ACTION
BASE 5 (sold separately).

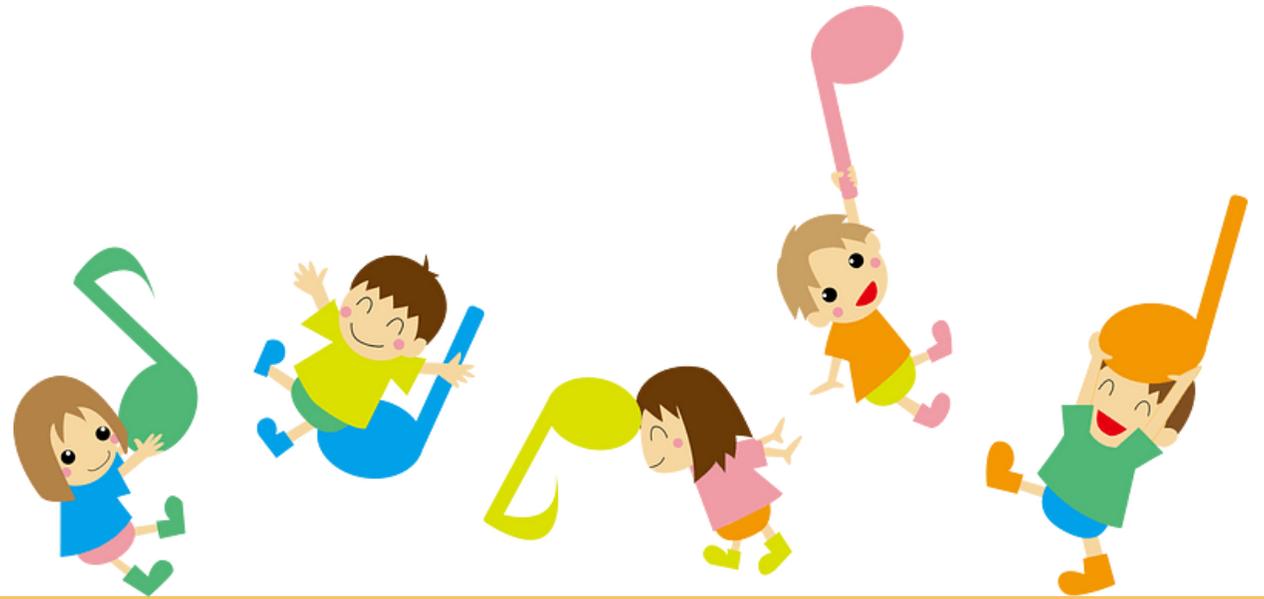
K.K.A.B

唱：Ally Tang

曲：Ally Tang

詞：Ally Tang





學生或老師們在學習創作電子音樂時的分別和趣事

Au Wai Lam Amellia
瑪利諾修院學校(小學部)
Maryknoll Convent School (Primary Section)

00:00



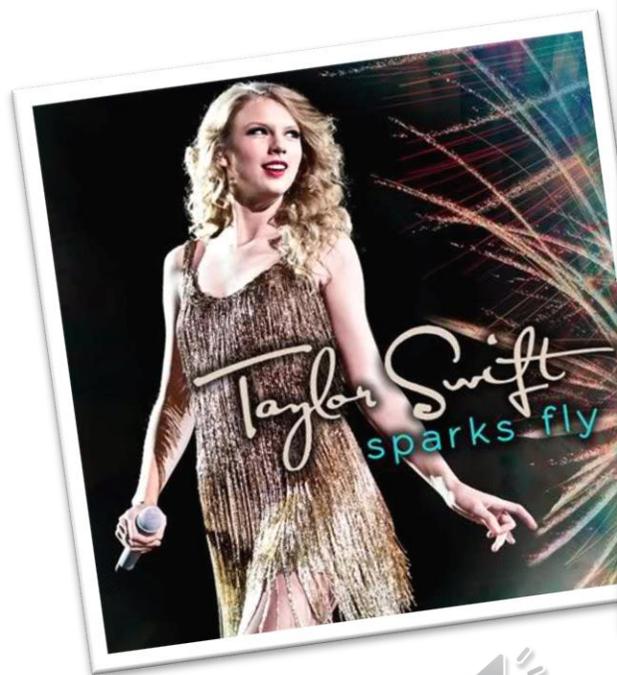
Chan Yuen Tung

聖公會聖匠中學

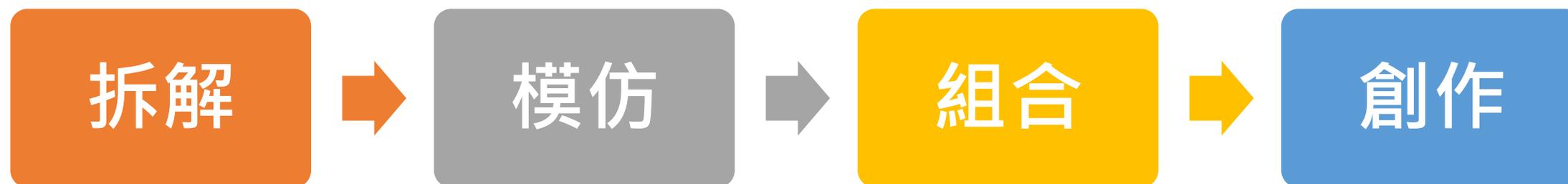
SKH Holy Carpenter Secondary School

00:00

拆解一首流行曲的過程



從拆解到組合再延伸至創造



五感觀察法

視覺



聽覺



嗅覺



觸覺



味覺





音樂行業的發展？
音樂製作的趨勢？



Beabadoobee Coffee

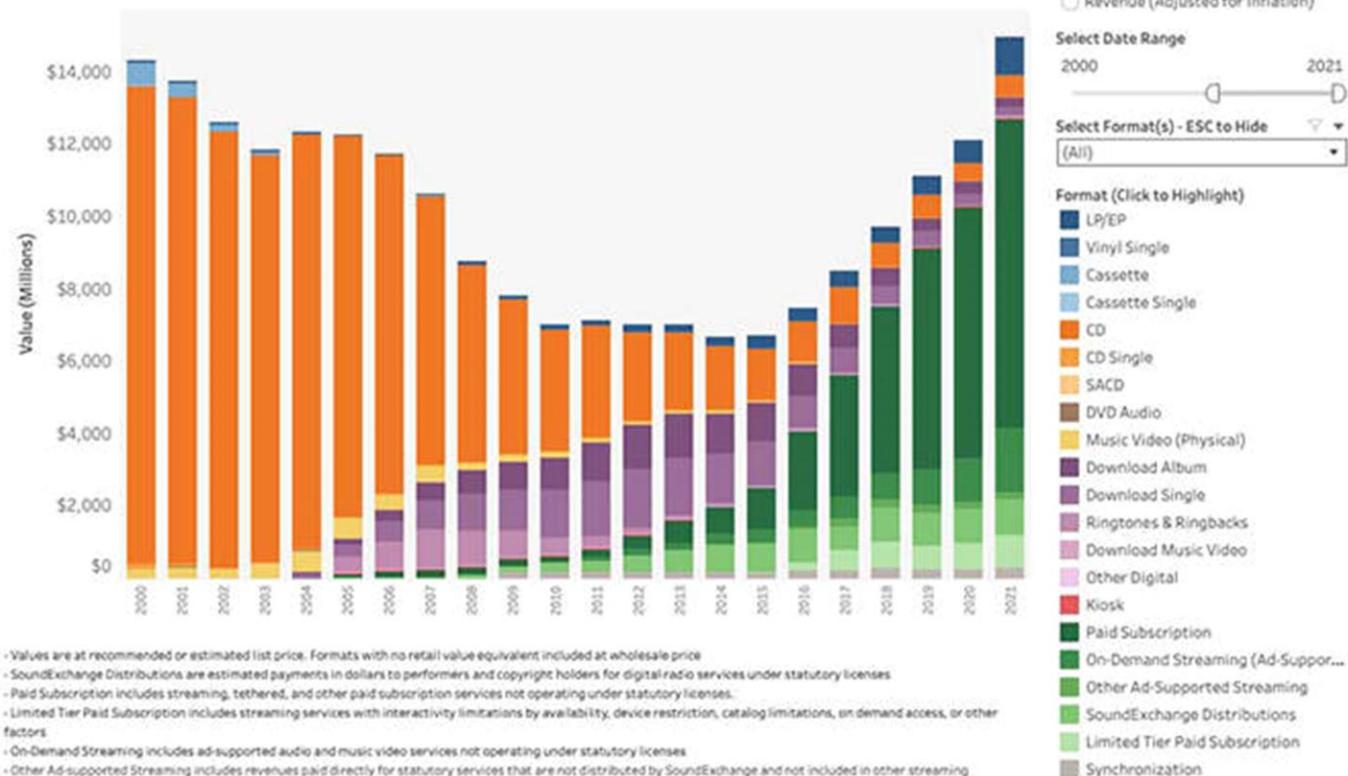


Powfu Death Bed

實體CD銷售下跌 vs 串流平台又不斷出現

U.S. Recorded Music Revenues by Format

2000 to 2021, Format(s): All
Source: RIAA



- Values are at recommended or estimated list price. Formats with no retail value equivalent included at wholesale price
- SoundExchange Distributions are estimated payments in dollars to performers and copyright holders for digital radio services under statutory licenses
- Paid Subscription includes streaming, tethered, and other paid subscription services not operating under statutory licenses.
- Limited Tier Paid Subscription includes streaming services with interactivity limitations by availability, device restriction, catalog limitations, on-demand access, or other factors
- On-Demand Streaming includes ad-supported audio and music video services not operating under statutory licenses
- Other Ad-supported Streaming includes revenues paid directly for statutory services that are not distributed by SoundExchange and not included in other streaming categories
- Kiosk includes Singles and Albums
- Synchronization Royalties include fees and royalties from synchronization of sound recordings with other media
- Ringtones & Ringbacks includes Master Ringtones, Ringbacks, and prior to 2013 Music Videos, Full Length Downloads, and Other Mobile
- Other Tapes includes reel-to-reel and quadraphonic
- Other Digital includes other digital music licensing
- Updated accounting standards beginning in 2016

Source: RIAA. Permission to cite or copy these statistics is hereby granted, as long as proper attribution is given to the Recording Industry Association of America

Select Measure

- Revenue
- Revenue (Adjusted for Inflation)

Select Date Range

2000 2021

Select Format(s) - ESC to Hide

(All)

Format (Click to Highlight)

- LP/EP
- Vinyl Single
- Cassette
- Cassette Single
- CD
- CD Single
- SACD
- DVD Audio
- Music Video (Physical)
- Download Album
- Download Single
- Ringtones & Ringbacks
- Download Music Video
- Other Digital
- Kiosk
- Paid Subscription
- On-Demand Streaming (Ad-Support...
- Other Ad-Supported Streaming
- SoundExchange Distributions
- Limited Tier Paid Subscription
- Synchronization

Click to view revenue for single year



1張實體唱片被出售

=



10首數位音樂被下載

=



1500次串流媒體被播放



【Super Mario】管弦樂團陪你挑戰《超級瑪利歐》即場奏關卡BGM





九龍城區音樂發展計劃
— iJam Music

10^d
ART

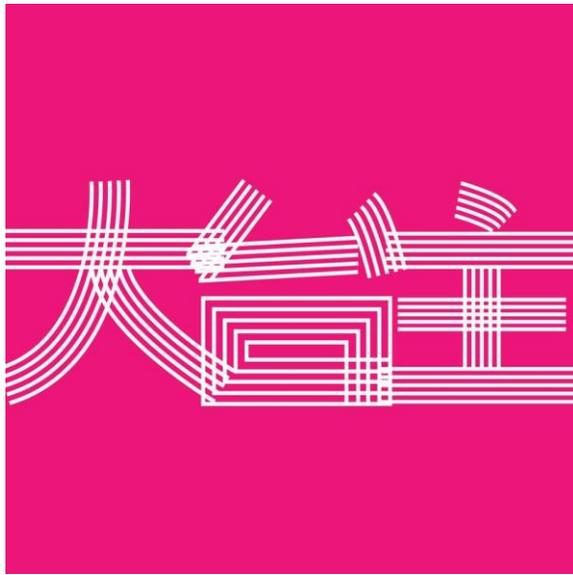
社區演藝計劃 COMMUNITY ARTS SCHEME





大台主
校園巡迴分享會





   **mymainstage**

<https://16productions.com/hk>



SCAN ME



   **stemsir**

<http://stemsir.hk>

