Sound sequence (3+ creators)

Type: Warm-up (15–20 mins) for the 'Our beat' project (rpf.io/ourbeat)

Activity overview

Get your brains (and bodies) in rhythm! In small bands, creators make short sound sequences using claps, stomps, and silly noises. But there's a twist: each band must follow code-like rules to play their music correctly.

Materials needed:

Each group needs a pen and 4-beat grid to record their sequence of sounds, or 'sound code'.
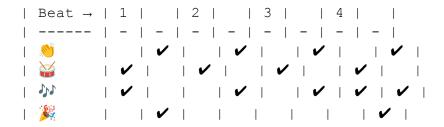
Step 1: Form a band (2 mins)

Split into groups of 3–5. Each person makes only one sound (e.g. clap, stomp, click, whoosh, hum).

Example:

- Player A = clap 👏
- Player B = stomp 👣
- Player C = beep 🎶
- Player D = cheer 🎉

Step 2: Build your beat (5 mins)

Put a ✔ to mark where each sound plays in the 4-beat grid. Leave a blank space for silence. Each column is a beat, and time flows from left to right. Here is an example:

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏      |   | ✔ |   | ✔ |   | ✔ |   | ✔ |
| 🥁      | ✔ |   | ✔ |   | ✔ |   | ✔ |   |
| 🎶      | ✔ |   |   | ✔ |   | ✔ | ✔ | ✔ |
| 🎉      |   | ✔ |   |   |   |   |   | ✔ |
```

Step 3: Perform your sound (5 min)

Each band performs their sequence live in front of the other bands, sticking to their rules exactly. Challenge each band to be precise — no freestyling!

Step 4: Debug and remix (5 min)
After watching each other, bands can:

- Suggest small changes to another band's sequence (e.g. loop a sequence 4 times, or add more sounds)
- Try to remix another band's sequence (e.g. reverse it) or add a condition (e.g. only clap on an even number)

Challenge: Add another sequence to build up a song. You could also combine more than one band, perhaps starting them on different beats.

Wrap-up: Key takeaways (2 min)

✅ Sequences and loops help create music
✅ Rules and logic must be followed precisely
✅ Each person (or part) has a role in the sound system

Online project
Now that you've explored how sequences and loops can create rhythms, you can try out the 'Our beat' project to code your own musical micro:bit band!

Check it out here: rpf.io/ourbeat.

4-beat grids

(Up to 4 sounds)

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎶     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
```

✂ — — — — — — — ✂ — — — — — — ✂ — — — — — — — ✂ — — — — — — — ✂ — — — — — ✂ — — — — — ✂ — — — ✂ —

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎶     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
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✂ — — — — — — ✂ — — — — — — ✂ — — — — — — ✂ — — — — — — ✂ — — — — — — ✂ — — — — — ✂ — — — ✂ —

(Up to 8 sounds)

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎶     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
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✂ — — — — — — ✂ — — — — — — ✂ — — — — — — ✂ — — — — — — ✂ — — — — — ✂ — — — — — ✂ — — — ✂ —

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎶     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
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|        |   |   |   |   |   |   |   |   |
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```