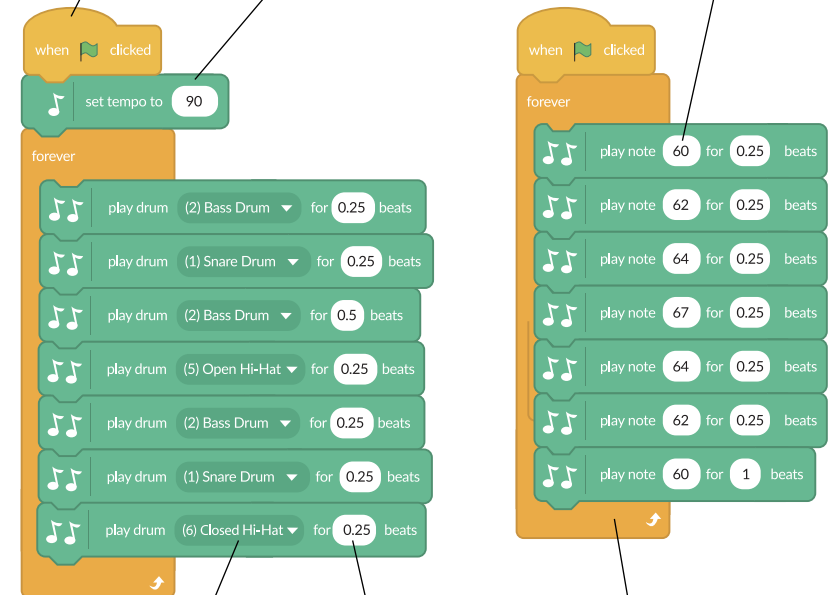Kapow

Debug	To find and fix errors in code.
Genre	A category of films with similar styles and themes.
Input	Information sent to a computer or program from a device, like a keyboard or mouse.
Loop	A repeated sequence of instructions.
Nested loop	A loop inside another loop, used to repeat actions multiple times within a larger repeated action.
Output	Information sent from a computer or program to a device, like a monitor or speakers.
Pitch	How high or low a sound is.
Program	A set of instructions that a computer follows.
Remixing	Changing and improving an existing project to make it your own.
Repeat	To do something again multiple times.
Rhythm	The pattern of long and short notes.
Tempo	The speed of the music (fast or slow).
Soundtrack	The music and sounds that go with a movie, game or story.

Creating a soundtrack in Scratch

This is the input to start the program.

The tempo sets how fast or slow the music will play.

This note can be changed to different pitches.

when 🏁 clicked

set tempo to 90

forever
- play drum (2) Bass Drum for 0.25 beats
- play drum (1) Snare Drum for 0.25 beats
- play drum (2) Bass Drum for 0.5 beats
- play drum (5) Open Hi-Hat for 0.25 beats
- play drum (2) Bass Drum for 0.25 beats
- play drum (1) Snare Drum for 0.25 beats
- play drum (6) Closed Hi-Hat for 0.25 beats

when 🏁 clicked

forever
- play note 60 for 0.25 beats
- play note 62 for 0.25 beats
- play note 64 for 0.25 beats
- play note 67 for 0.25 beats
- play note 64 for 0.25 beats
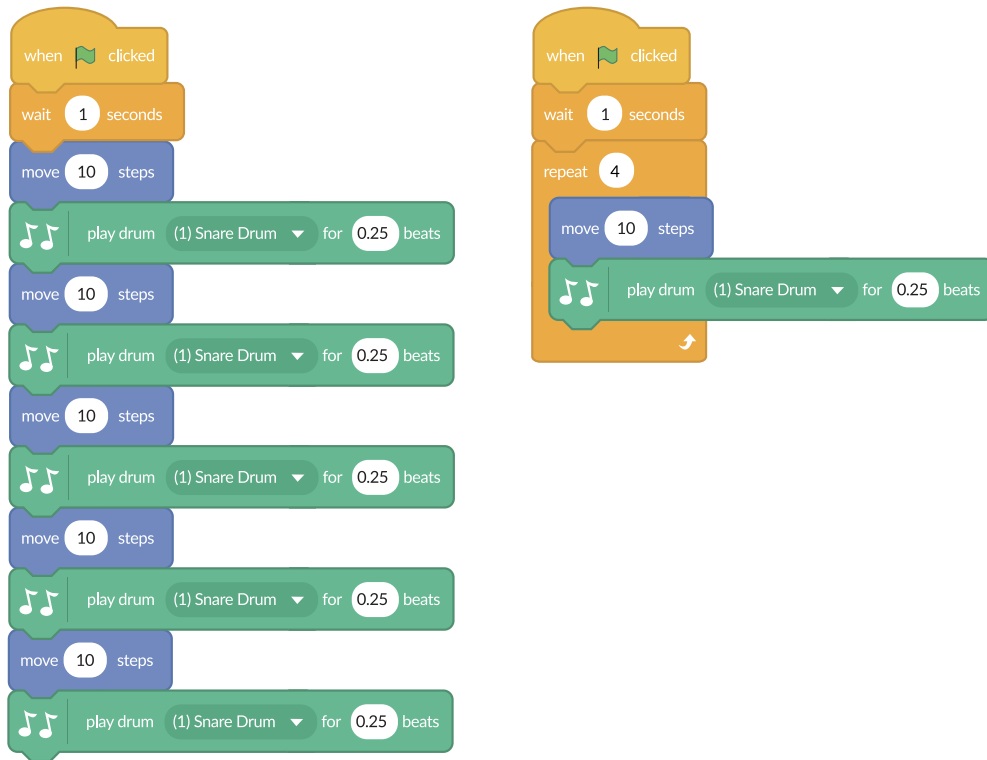- play note 62 for 0.25 beats
- play note 60 for 1 beats

This is the type of drum that has been selected.

This is how long the note plays.

The forever block repeats the blocks inside it continuously until the program is stopped.
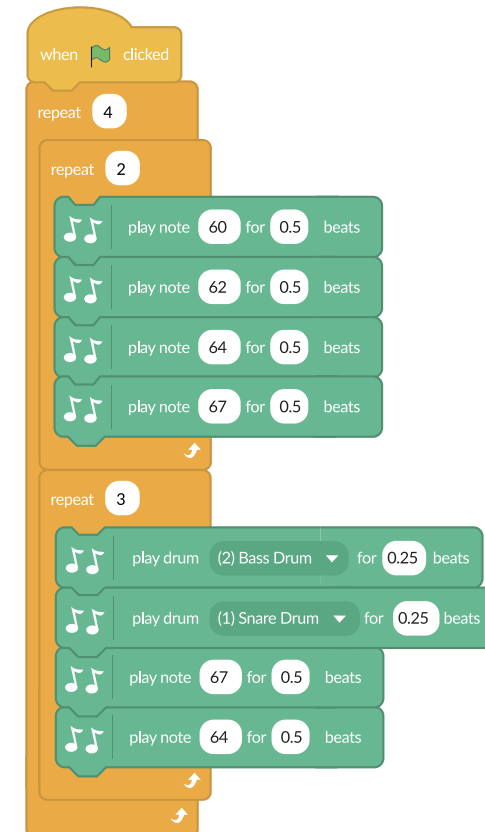
Coding with loops

```
when [flag] clicked
wait 1 seconds
move 10 steps
play drum (1) Snare Drum for 0.25 beats
move 10 steps
play drum (1) Snare Drum for 0.25 beats
move 10 steps
play drum (1) Snare Drum for 0.25 beats
move 10 steps
play drum (1) Snare Drum for 0.25 beats
move 10 steps
play drum (1) Snare Drum for 0.25 beats
```

```
when [flag] clicked
wait 1 seconds
repeat 4
    move 10 steps
    play drum (1) Snare Drum for 0.25 beats
```

Loops make programs simpler by repeating actions without using many blocks. Instead of adding the same instructions multiple times, a loop repeats them automatically, saving time and making the code easier to read and edit.

Nested loops

```
when [flag] clicked
repeat 4
    repeat 2
        play note 60 for 0.5 beats
        play note 62 for 0.5 beats
        play note 64 for 0.5 beats
        play note 67 for 0.5 beats
    repeat 3
        play drum (2) Bass Drum for 0.25 beats
        play drum (1) Snare Drum for 0.25 beats
        play note 67 for 0.5 beats
        play note 64 for 0.5 beats
```

A nested loop is a loop inside another loop, which means one set of actions repeats multiple times within another repeating set. This is useful for making patterns, like repeating rhythms in music or repeated movements in animations, while keeping the code neat and efficient.