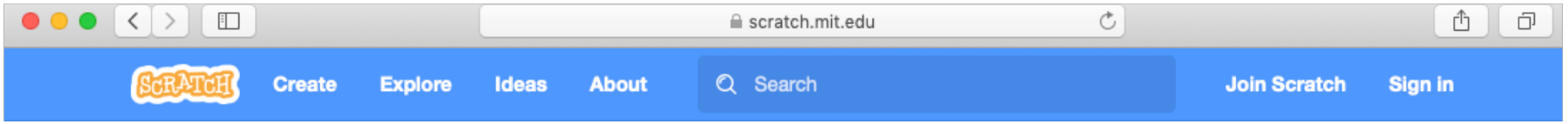
Coding the Elements of Music

If you have a Laptop or a device please go to https://scratch.mit.edu
You can choose to create an account 'Join Scratch' or just select 'create' to work without an account.
If you haven't pre downloaded Scratch 3.0 onto your laptop/macbook please do not download now.



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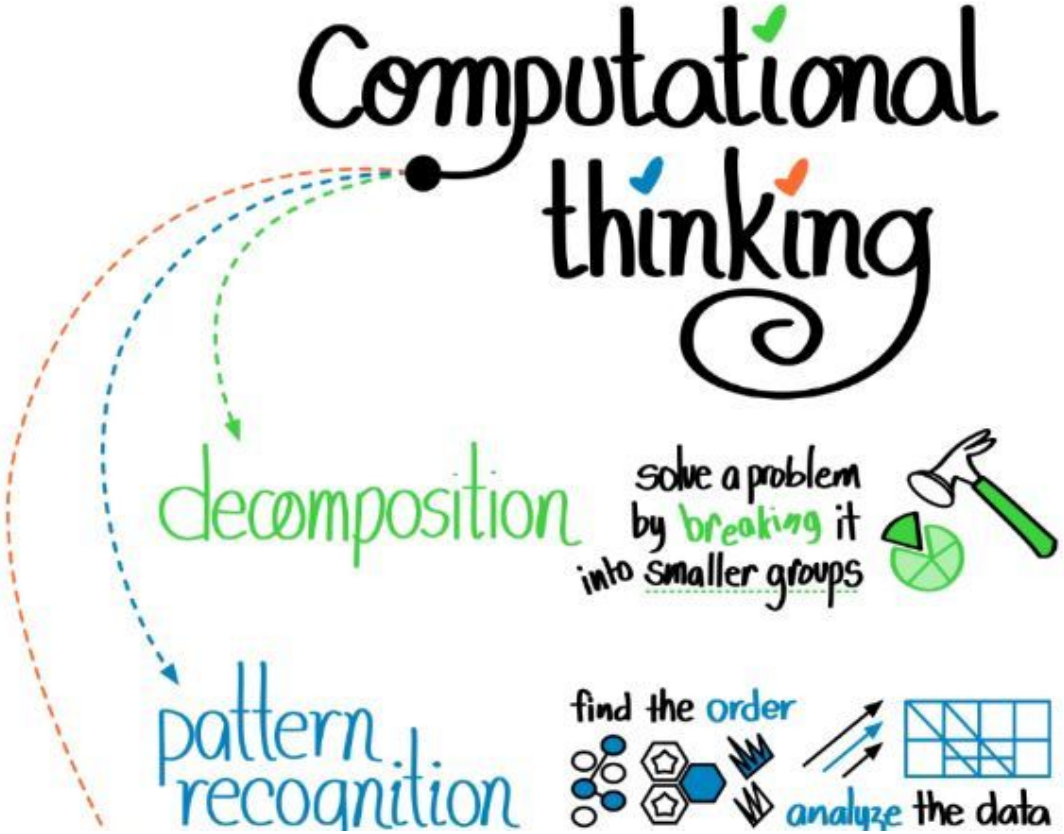
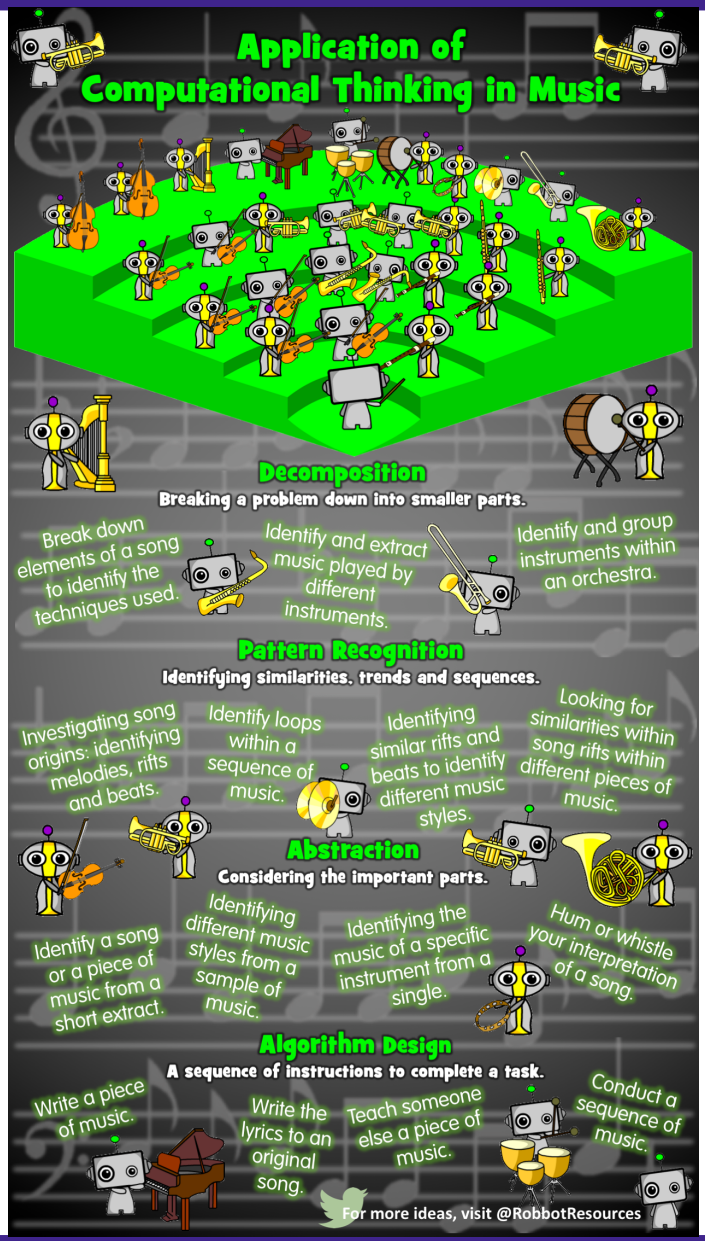
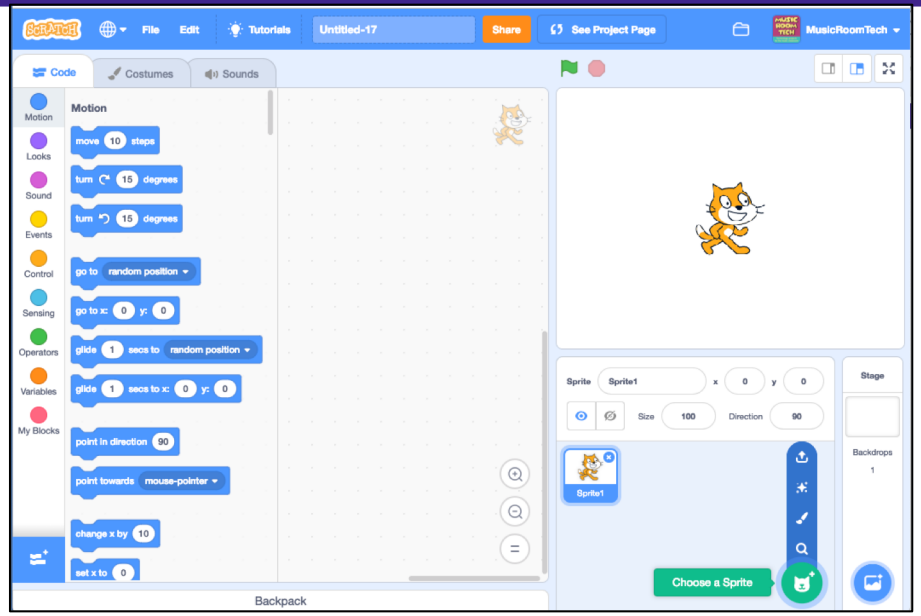
Content Descriptions F-2	Content Descriptions 3-4	Content Descriptions 5-6	Content Descriptions 7-8	Content Descriptions 9-10
Develop aural skills by exploring and imitating sounds, pitch and rhythm patterns using voice, movement and body percussion (ACAMUM080)	Develop aural skills by exploring, imitating and recognising elements of music including dynamics, pitch and rhythm patterns (ACAMUM084)	Explore dynamics and expression, using aural skills to identify and perform rhythm and pitch patterns (ACAMUM088)	Experiment with texture and timbre in sound sources using aural skills (ACAMUM092)	Improvise and arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music to explore personal style in com position and performance (ACAMUM099
General Capabilities			Develop musical ideas, such as mood, by improvising, combining and manipulating the elements of music (ACAMUM093)	Manipulate combinations of the elements of music in a range of styles, using technology and notation (ACAMUM100

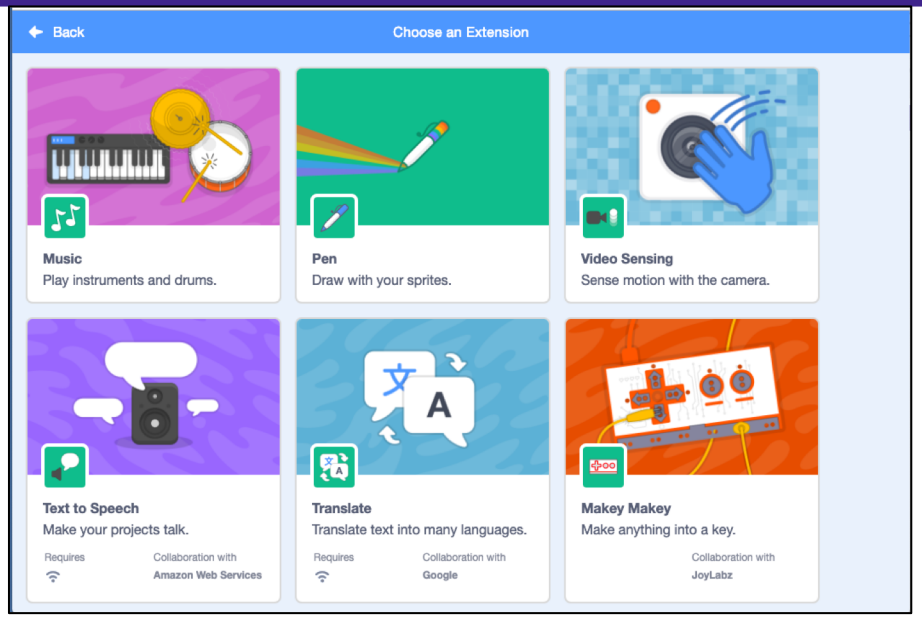


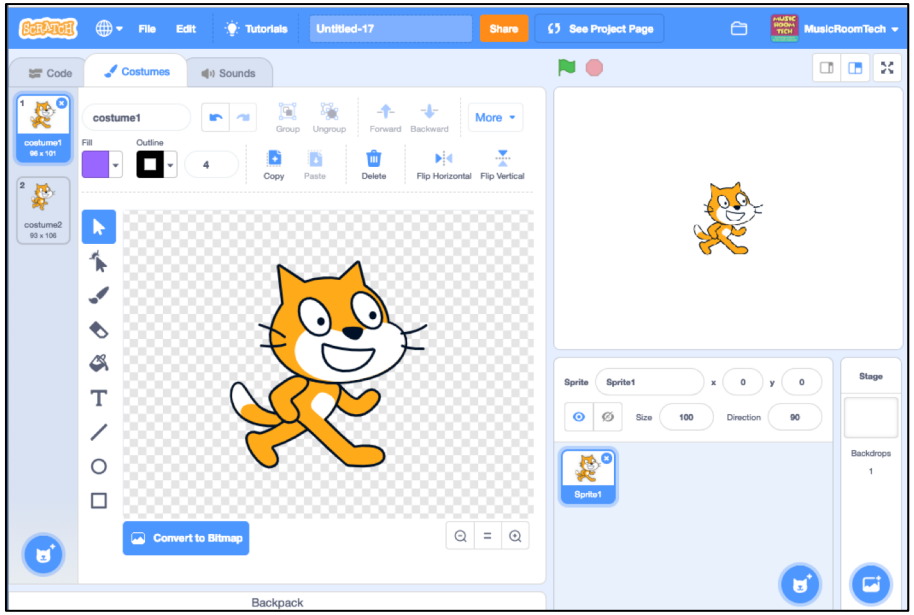
https://www.tes.com/teaching-resource/computational-thinking-decomposition-and-abstraction-11934044

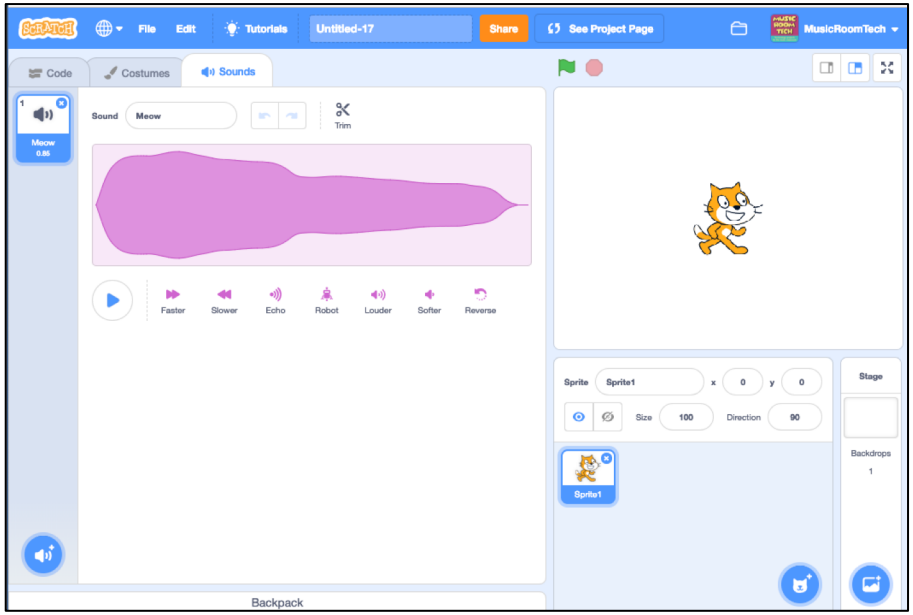


https://www.teacherspayteachers.com/FreeDownload/Application-of-Computational-Thinking-within-Music-4288642









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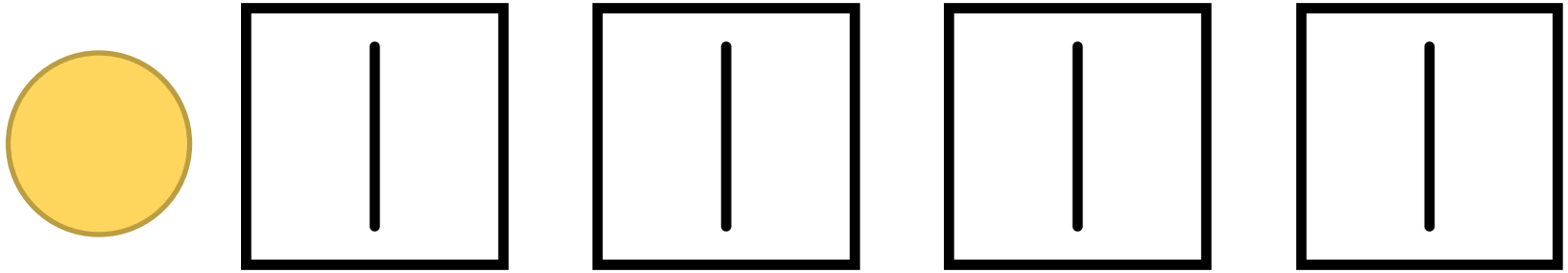
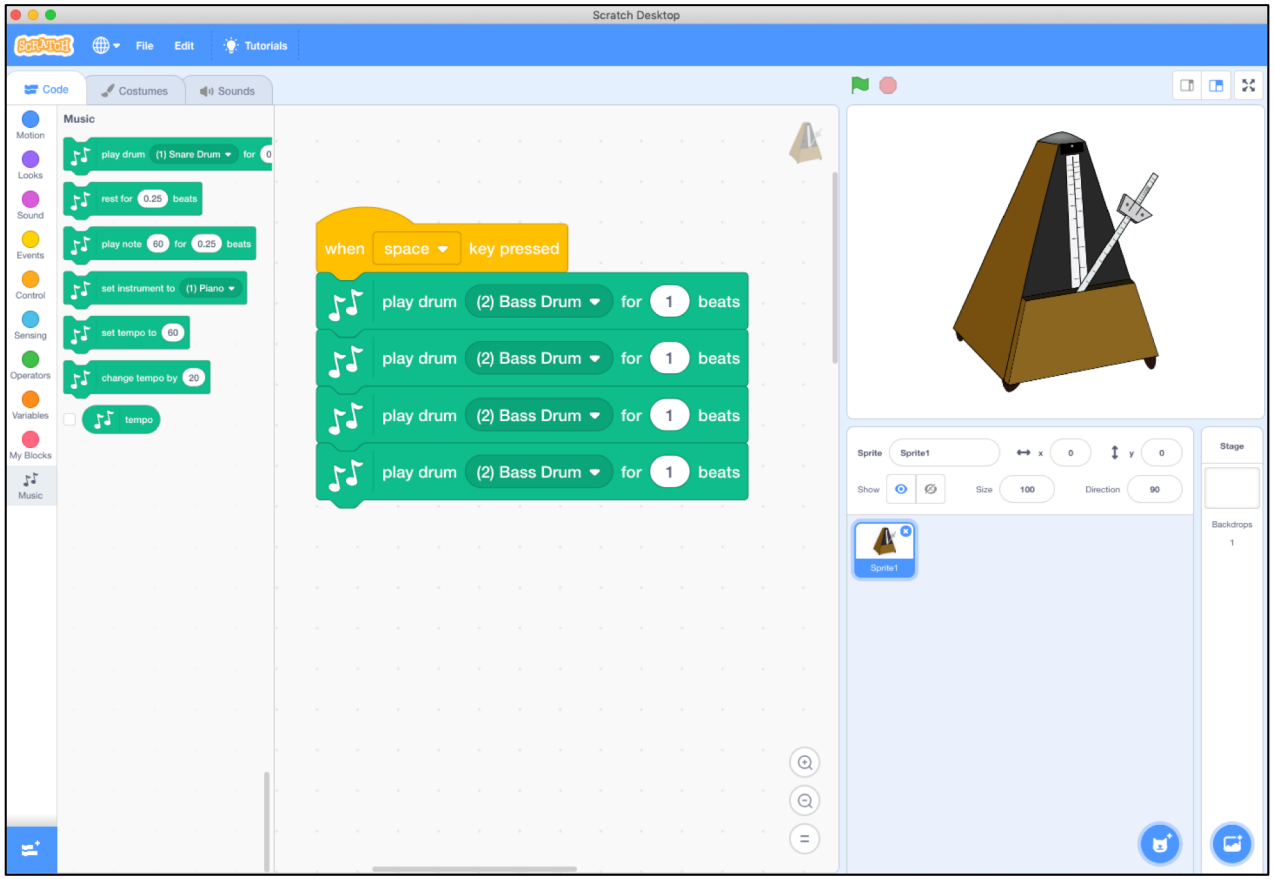
Explaining the New Scratch



Beat:
The basic unit of measurement used in music, it is described as a pulse.



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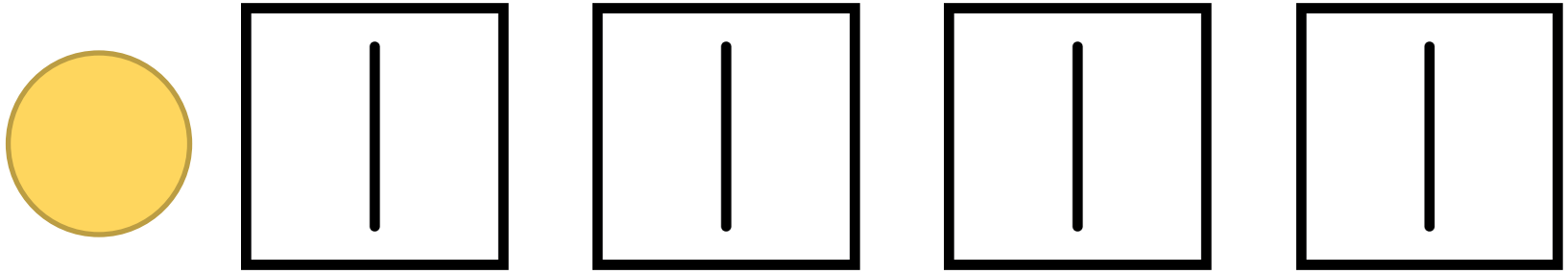
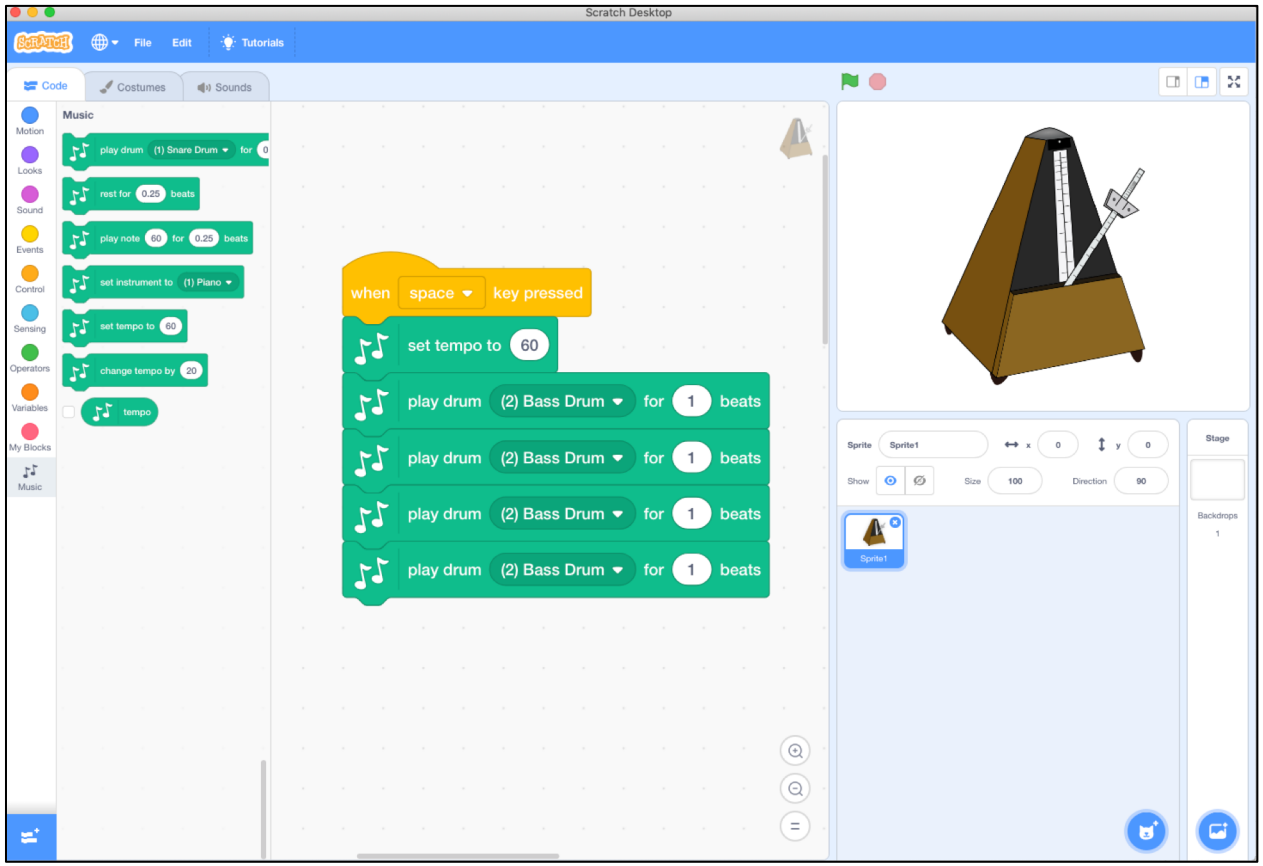


Tempo:
How fast or slow the beat is played using the measurement of time – bpm
The number of Beats Per Minute

Set tempo to
- 60
- 90
- 120



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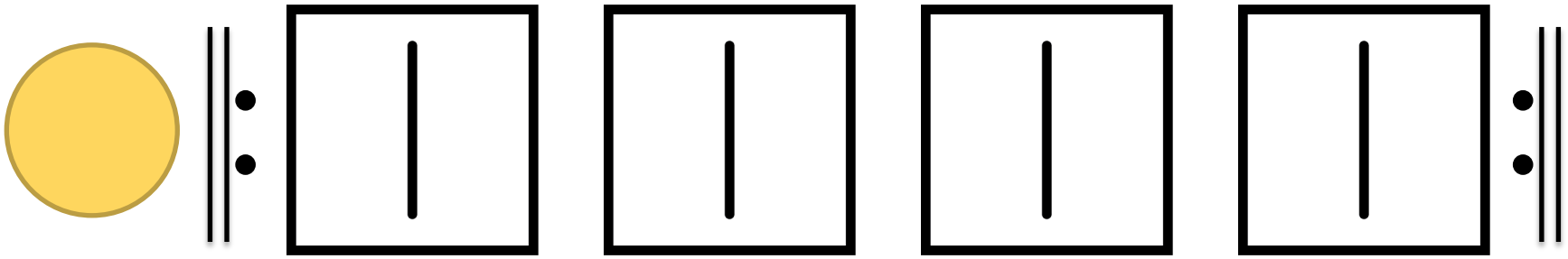

Set tempo to

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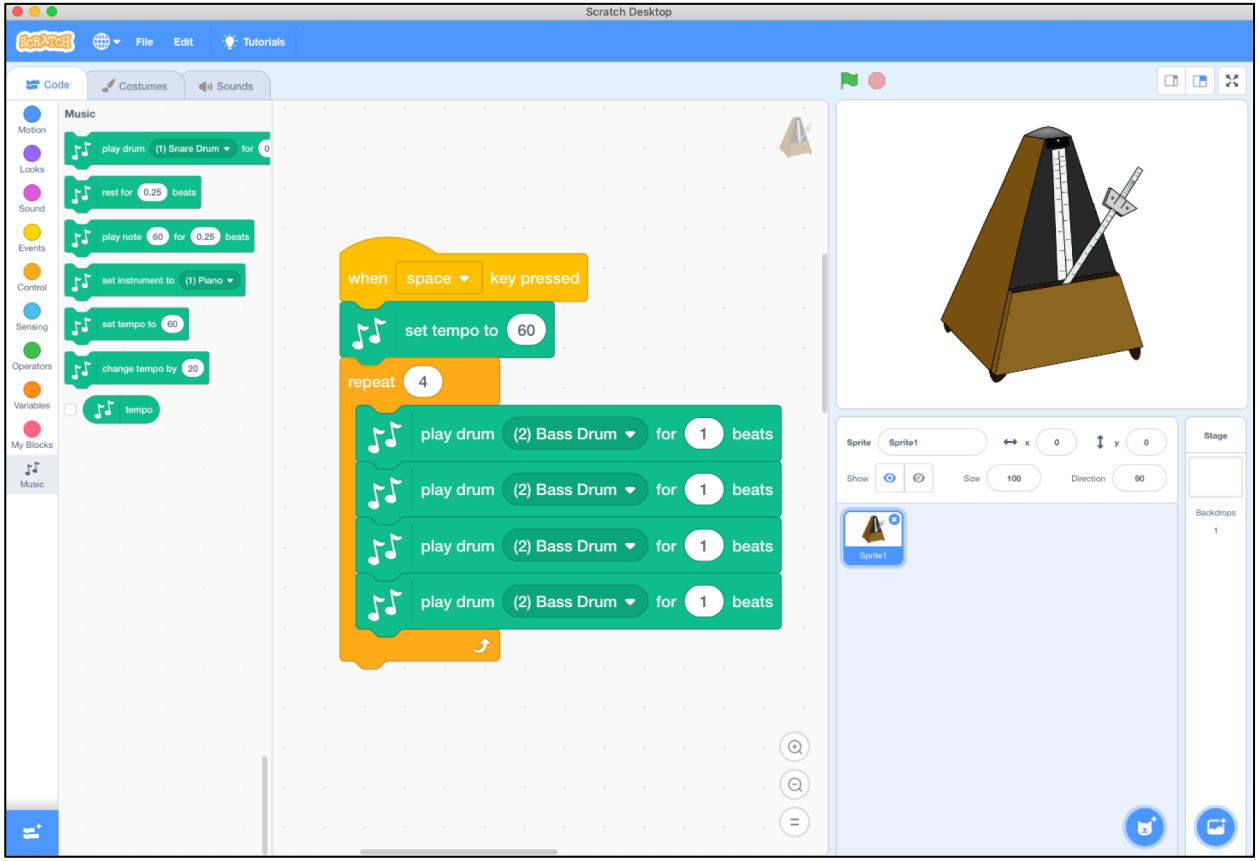
- 90
- 120



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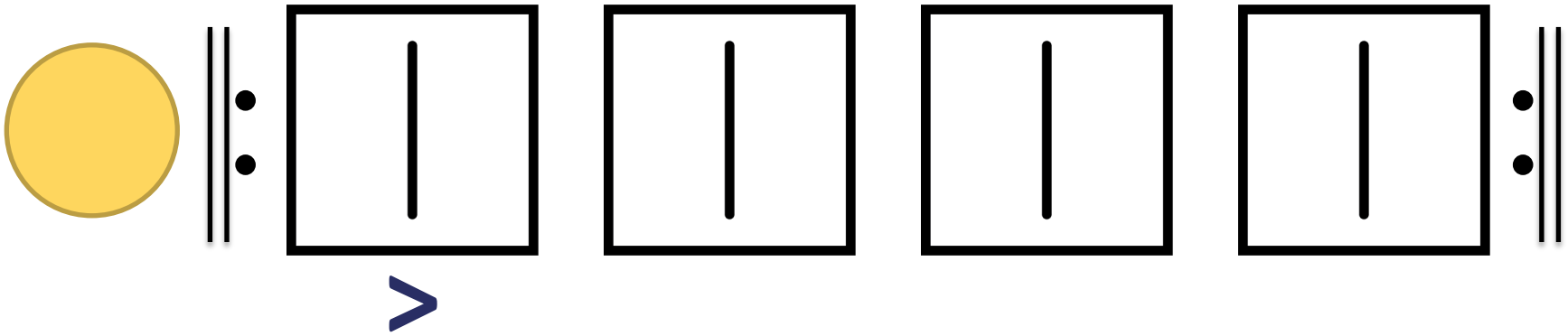
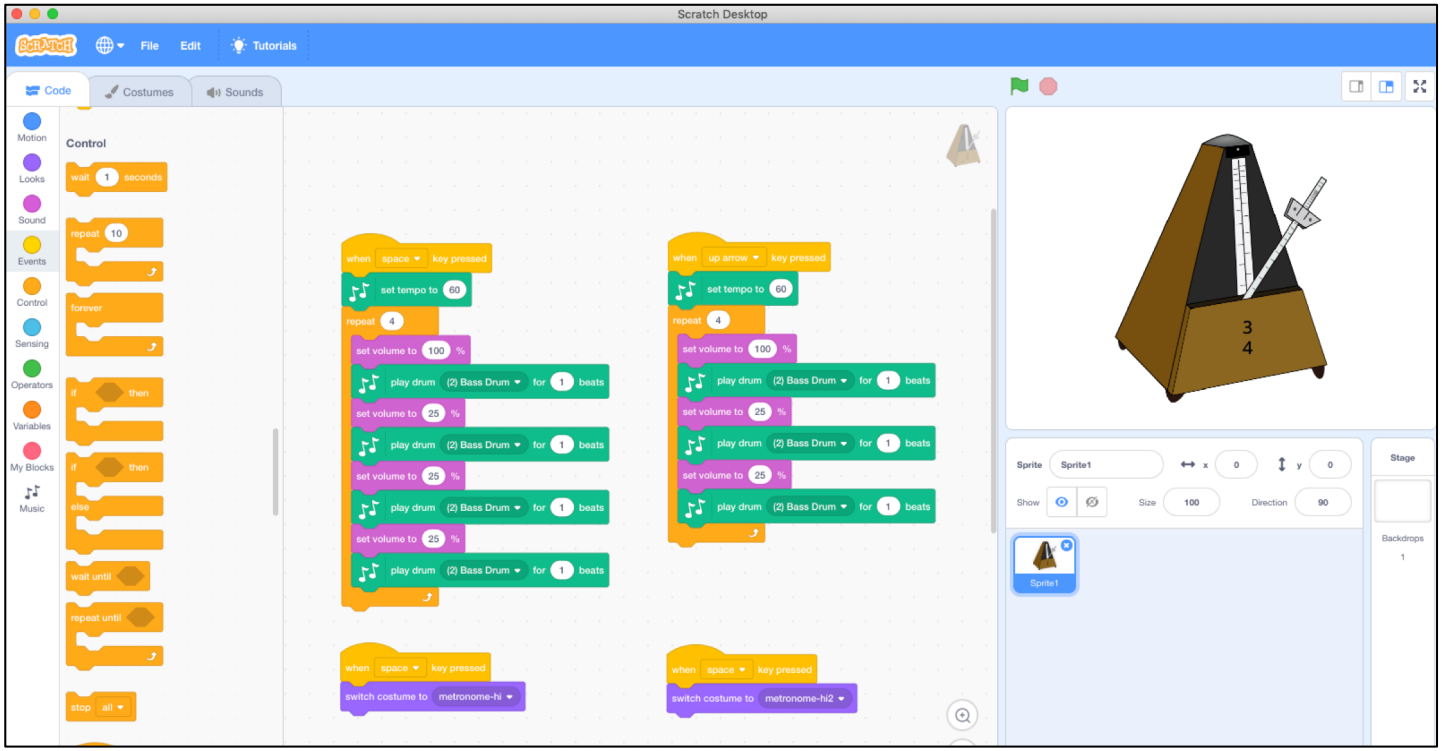


Set tempo to

- 60
- 90
- 120

To show the Accented beat set the volume before each block



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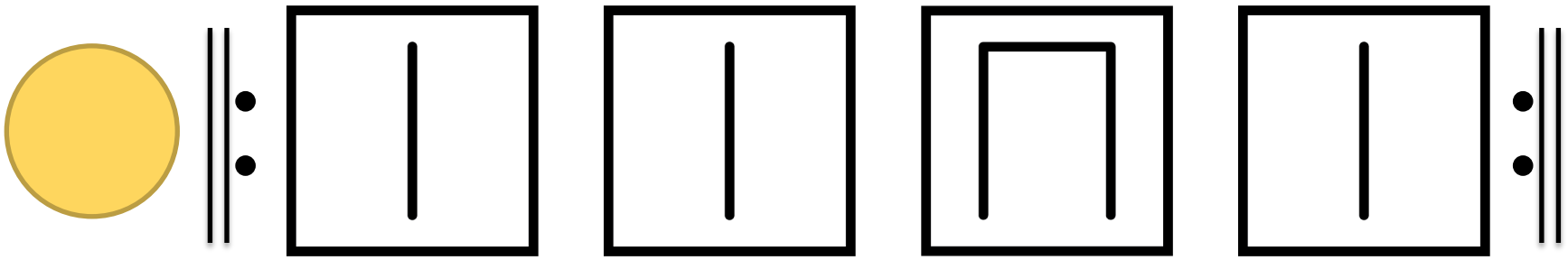
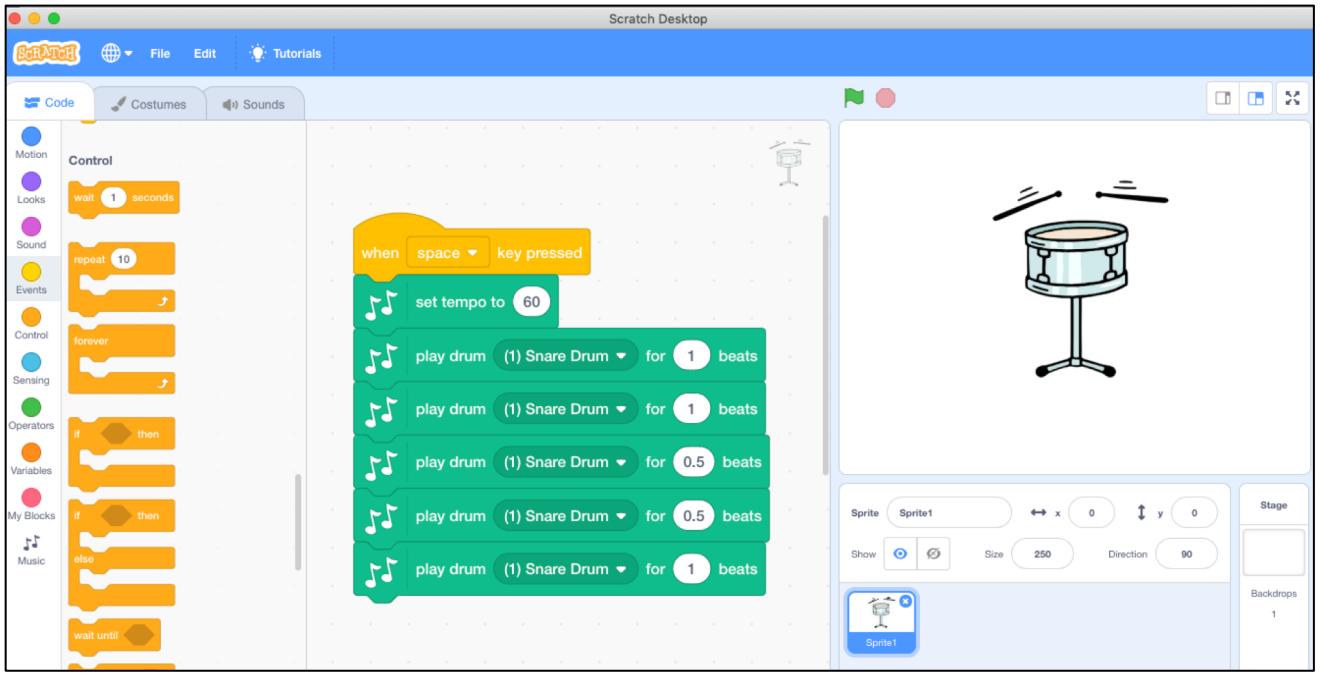
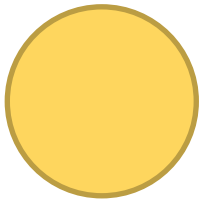


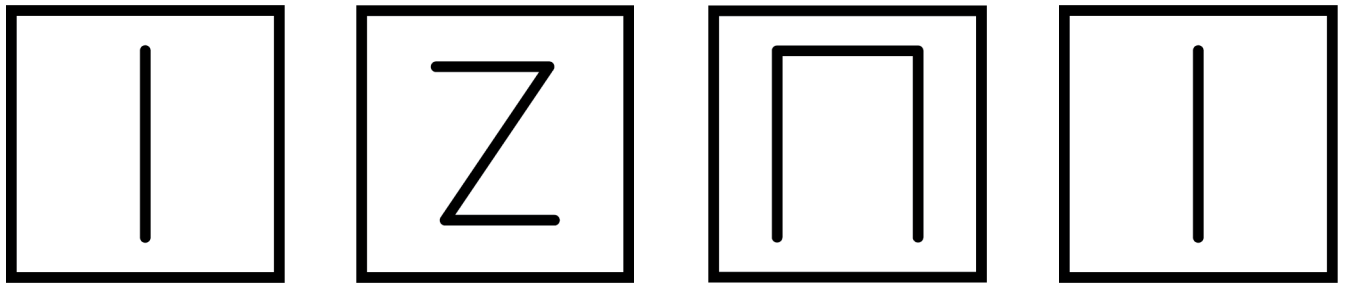
1 1 $\frac{1}{2} + \frac{1}{2}$ 1

1 1 0.5 + 0.5 1

Rhythm: Combinations of long and short sounds and rests that are made by multiplying or dividing a beat using equal parts (equivalent fractions)



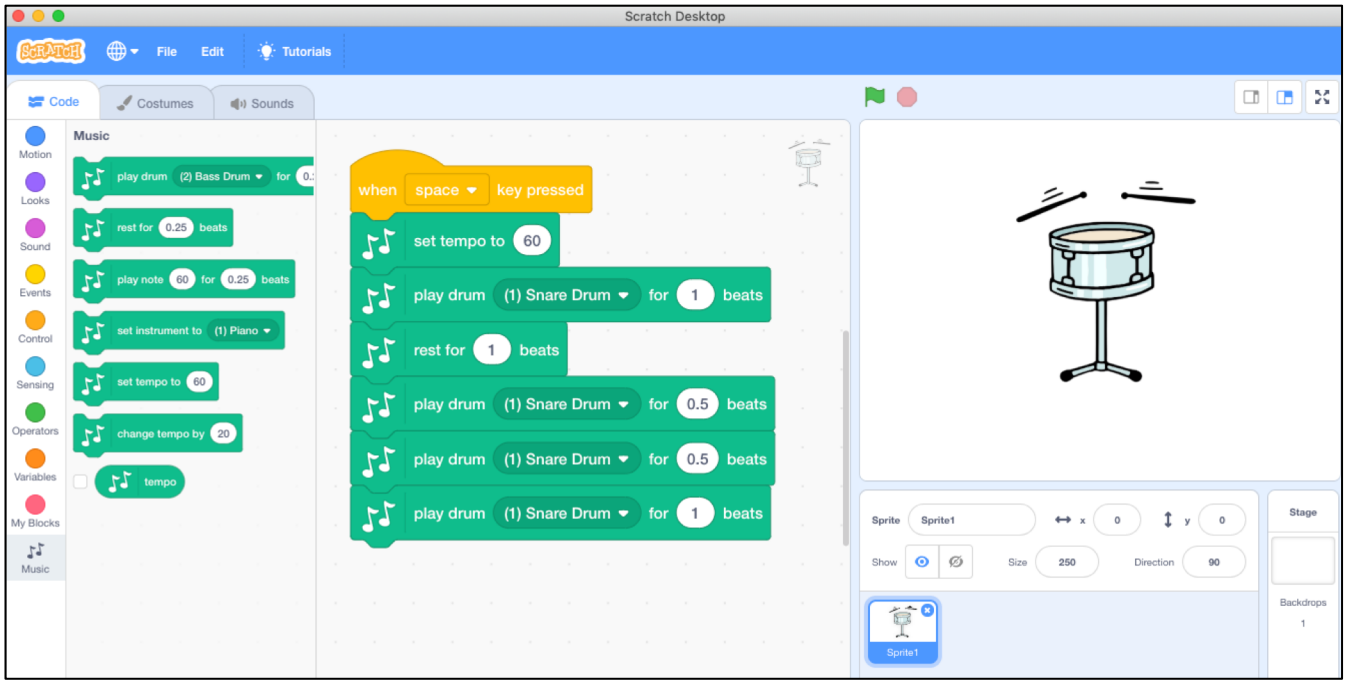


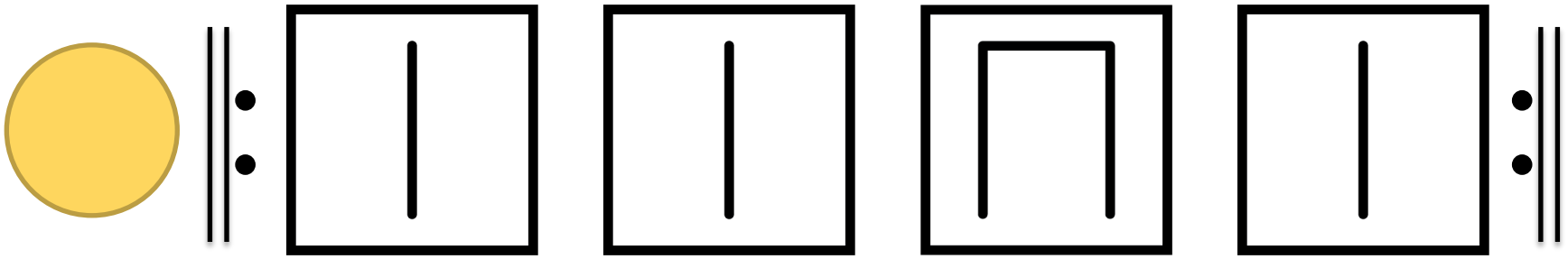


1 $\quad$ 1 $\quad$ $\frac{1}{2} + \frac{1}{2}$ $\quad$ 1

1 $\quad$ 1 $\quad$ 0.5 + 0.5 $\quad$ 1

Rhythm: Combinations of long and short sounds and rests that are made by multiplying or dividing a beat using equal parts (equivalent fractions)

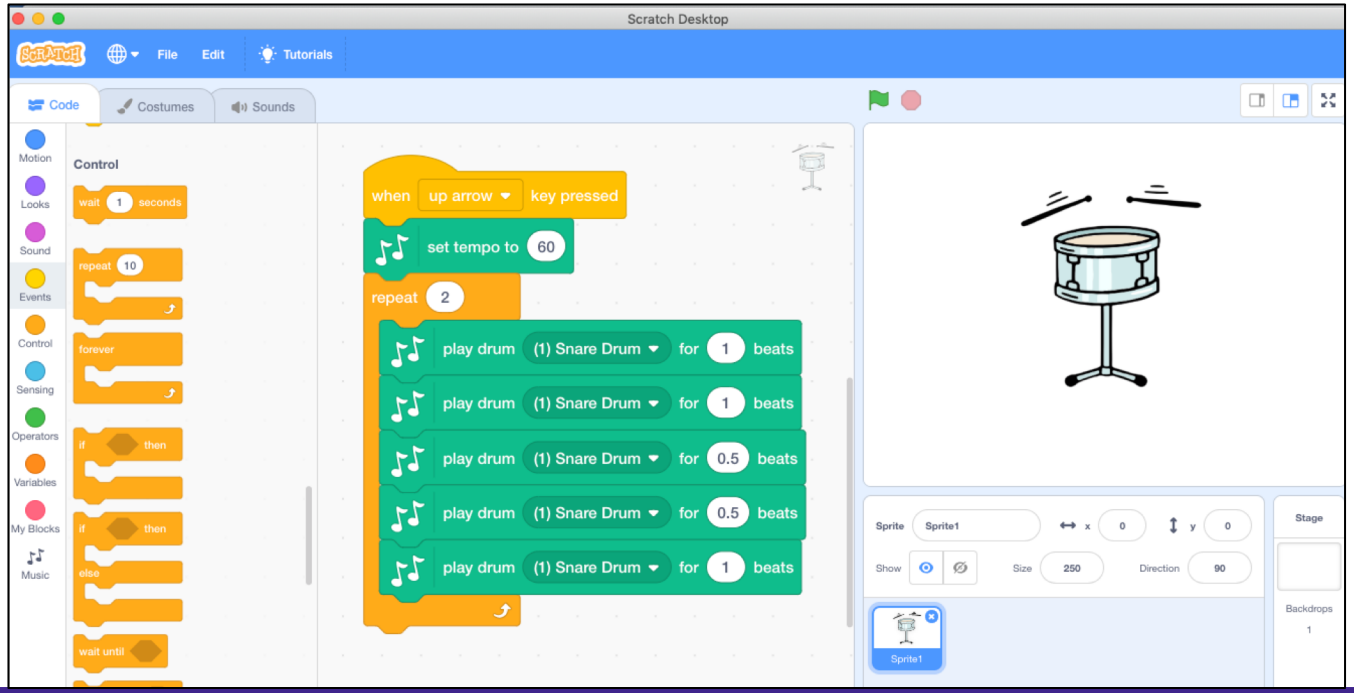


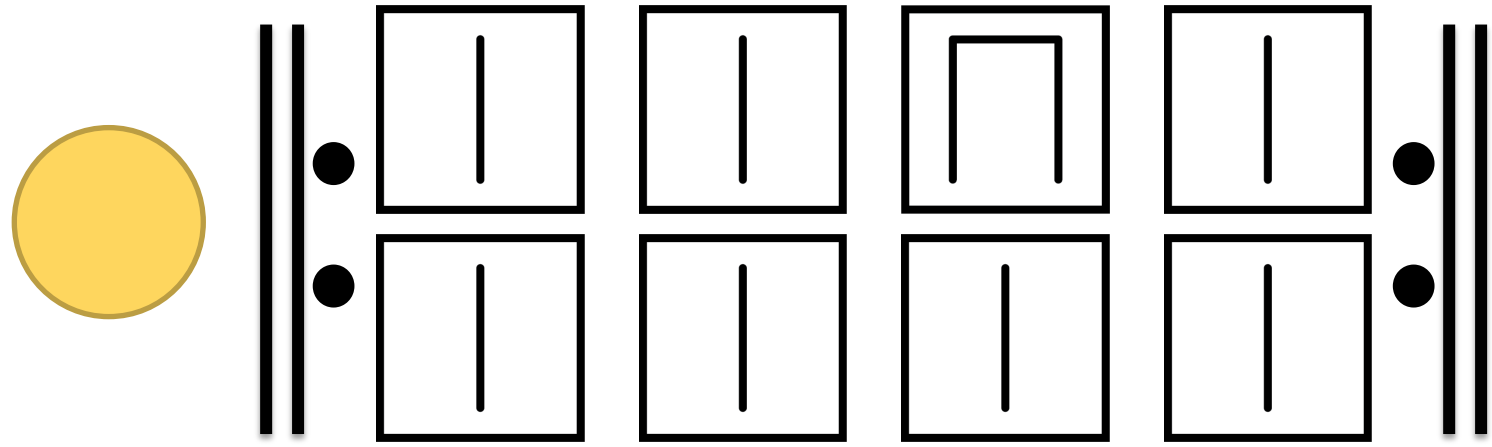


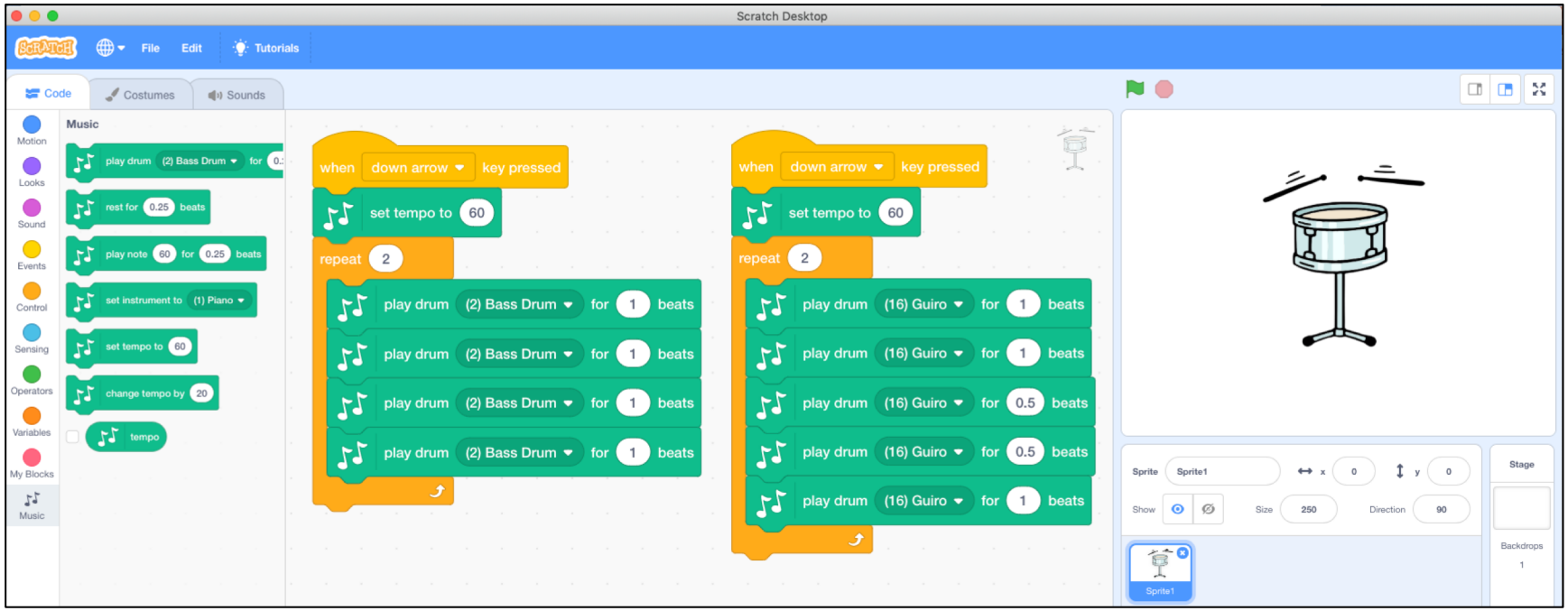
1 1 $\frac{1}{2} + \frac{1}{2}$ 1

1 1 0.5 + 0.5 1

Repeat Bar: Repeat the pattern 2 times unless number of repeats is stated



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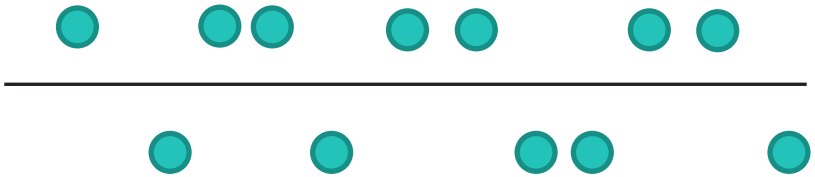
My Blocks
play drum (2) Bass Drum for 0.
rest for 0.25 beats
play note 60 for 0.25 beats
set instrument to (1) Piano
set tempo to 60
change tempo by 20
tempo
when down arrow key pressed
set tempo to 60
repeat 2
play drum (2) Bass Drum for 1 beats
play drum (2) Bass Drum for 1 beats
play drum (2) Bass Drum for 1 beats
play drum (2) Bass Drum for 1 beats
when down arrow key pressed
set tempo to 60
repeat 2
play drum (16) Guiro for 1 beats
play drum (16) Guiro for 1 beats
play drum (16) Guiro for 0.5 beats
play drum (16) Guiro for 0.5 beats
play drum (16) Guiro for 1 beats
Sprite
Sprite1
x
0
y
0
Show
Size
250
Direction
90
Stage
Backdrops
1
Sprite1



Rain, rain, go a - way, come a - gain a - no - ther day

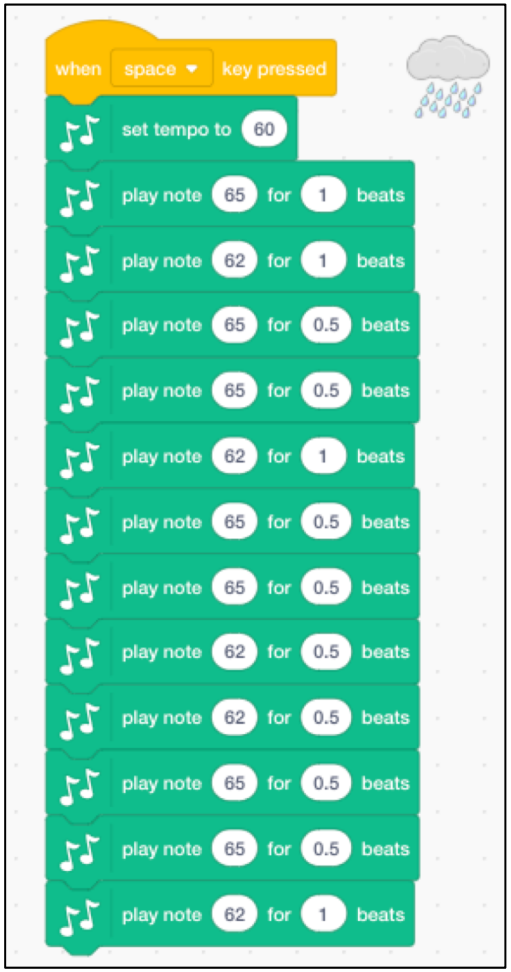
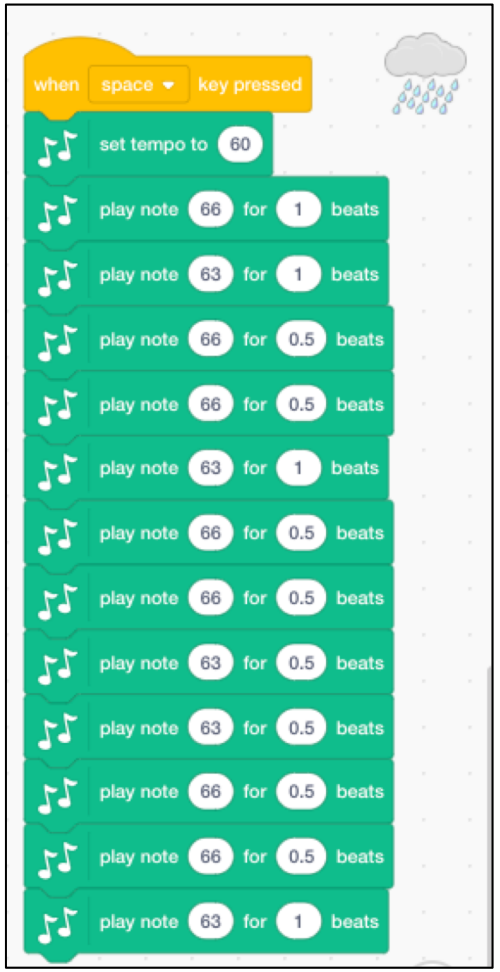
High note = 65 (F)

Low note = 62 (D)

High note = 66 (G)

Low note = 63 (E)

Pitch:
the highness or lowness of a sound
Numbers are higher and lower so pitch in music on a computer is represented by how high (large) or low (small) the number is.

Transposition: Change the numbers to be higher by 1 number – this increases it by a semitone.

FYI: Mathematical numbers refer to midi notes in computer language. Middle C is the 60th note on the piano, it's midi number is 60.