



# Making melodies

Scratch lesson plan – Code Playground



 **BARCLAYS**

# Lesson overview

In this lesson, students will create a music-based project called "Making melodies" using Scratch. They will learn to program melodies with the music extension, animate a dancer to move in sync with the music, and explore creative ways to enhance their project. This lesson uses the making melodies workbook and instructional video to guide students step-by-step.

Time	Key learning outcomes	Resources
45 mins	<ul style="list-style-type: none"><li>• Understand how to program music using Scratch's music extension</li><li>• Animate sprites with costume changes to match the rhythm of the melody</li><li>• Explore loops and timing to synchronise animations with sound.</li></ul>	<ul style="list-style-type: none"><li>• Laptops or desktop computers</li><li>• Access to Scratch website - <a href="https://scratch.mit.edu">https://scratch.mit.edu</a></li></ul>

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# Activity introduction

Introduce the concept of the project:

“Today, we’re making melodies in Scratch. You’ll learn to compose your own tune and animate a dancer to move with the rhythm.”

Discuss the creative possibilities:

“This project lets you create your own band or concert. By experimenting with notes, rhythms, and animations, you can make it as unique as you like.”

Real-life connection:

“Music programming is used in apps, games, and even by professional composers to create beats and melodies. You’re learning how technology and creativity combine”

Tie this project to both maths and art by not only exploring repeated patterns but also the effects of changing angles within the project.

## Scratch practical

Ask the children to log into Scratch and pick the theatre backdrop to begin.

Show the making melodies video as a guided lesson pausing regularly when the pupils need to catch up.

- Children should be able to follow along with the workbook or the guided lesson video
- By the end of the lesson children should be able to create a working program showcasing the making melodies project.



# Activity – Making melodies

This project is the introduction to using scratch to make music. The concept will be expanded upon in the Barclays big band project. They will use the sound blocks to create a melody while animation techniques will be used to make a dancer sprite move to the beat.

Class question:

“What happens if you change the timing of the costume changes?”

The enclosed code snippets will demonstrate to you how the sounds function works.

## Scratch practical

Using the video and workbooks support the children to follow the instructions and complete the coding project. Have them think of other ways to enhance the project if they have extra time.

## Activity wrap up

Prepare to share your project with the class.

What instruments or effects would you add to make your project stand out?

## Encourage customisation

- Add a second dancer with unique moves
- Create a stage light effect using the Pen extension
- Program different melodies for each instrument in your band.

# Code snippets

Motion

Looks

Sound

Events

Control

Sensing

Operators

Variables

My Blocks

Sound

play sound Meow until done

start sound Meow

stop all sounds

change pitch effect by 10

set pitch effect to 100

clear sound effects

change volume by -10

set volume to 100 %

volume



when I receive Guitar

start sound C Elec Guitar

wait .4 seconds

start sound C Elec Guitar

wait .4 seconds

start sound C Elec Guitar

wait .3 seconds

start sound D Elec Guitar

wait .15 seconds

start sound E Elec Guitar

wait .4 seconds

broadcast Guitar 2

when I receive Guitar 2

start sound E Elec Guitar

wait .2 seconds

start sound D Elec Guitar

wait .15 seconds

start sound E Elec Guitar

wait .3 seconds

start sound F Elec Guitar

wait .15 seconds

start sound G Elec Guitar

wait .5 seconds

broadcast Guitar 3

when I receive Guitar 3

start sound C2 Elec Guitar

wait .15 seconds

start sound C2 Elec Guitar

wait .15 seconds

start sound C2 Elec Guitar

wait .15 seconds

start sound G Elec Guitar

wait .15 seconds

start sound G Elec Guitar

wait .15 seconds

start sound G Elec Guitar

wait .15 seconds

broadcast Guitar 4

# Summary

The following information is an example of what a child at an expected level would be able to demonstrate when completing these activities with additional examples to demonstrate how this would vary for a child with emerging or exceeding achievements.

## Assessment guidance

### Differentiation – Lower ability/ASN

- Provide step-by-step visuals from the workbook to support coding tasks
- Focus on creating a simple melody before adding animations
- Allow paired work to help students learn collaboratively.

### Differentiation – Higher ability/extension

- Challenge students to create more complex melodies with harmonies
- Encourage them to design additional animations or effects
- Introduce variables to control timing or switch between different melodies.

## Plenary

- “What did you learn about programming music today?”
- “How did you sync the dancer with the melody?”
- “What would you add to make your project more exciting?”

## Assessment questions

- How did you program your instrument to play a melody?
- What coding blocks were used to sync the dancer’s animation with the melody?
- How could you use the music extension to add more depth to your project?
- What features would you add to make your project more interactive?