Any old tune

Scratch lesson plan – Code Playground

Lesson overview

In this lesson, students will use Scratch to create a musical animation project called any old tune. They will learn how to use broadcast messages to control the timing and interaction between different sprites, enabling instruments to play in sequence or simultaneously. This is part four of our story challenge.

Time	Key learning outcomes	Resources
45 mins	• Understand how broadcast messages work to coordinate sprite actions • Use Scratch to program and animate musical instruments • Develop a sequence of events using broadcast and sound blocks • Experiment with customisation to enhance animations.	• Laptops or desktop computers • Access to Scratch website - https://scratch.mit.edu.

Content

Introduction

Any old tune is part 4 of our story challenge. It uses broadcast messages to control the animation and musical tune created by multiple sprites.

"Through the five parts of the story challenge you will use a variety of different skills that you can use to build up to create a longer project."

This project builds on the skills learned through the making melodies and Barclays big band projects.

"Broadcast messages let sprites communicate with each other. We'll use them to make instruments take turns playing or to coordinate animations."

Class discussion

"What other projects do you think could use broadcast messages to make sprites interact?"

Scratch practical

Ask the children to log into Scratch and set up their workspace as described in the workbook. Show the any old tune 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 any old tune activity.

Activity – Any old tune

"Today, we'll learn how to make musical instruments play in sequence by using broadcast messages. This will help us create a fun animated performance."

Things to think about:

"Why do we use a broadcast message to start the project instead of coding each sprite individually?"

In this project we first code the saxophone and then the trumpet by copying the code from the workbook.

"How do broadcast messages help control the order of events in your project?"

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 would you add to make the saxophone animation more fun?"

Encourage customisation

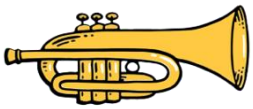
Add more complex animations to each instrument sprite.

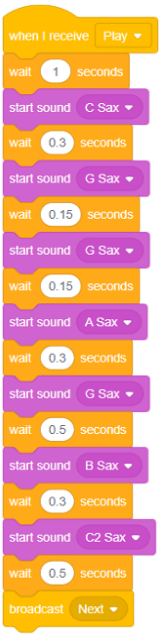
Create a full band with additional instruments playing simultaneously.

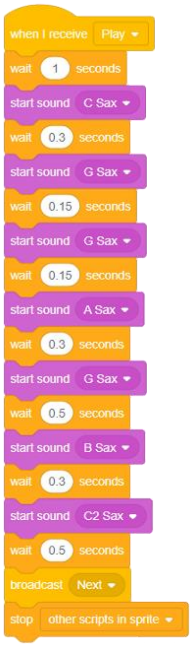
Experiment with using broadcast messages to create visual effects.

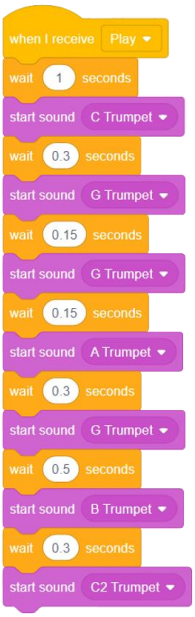
Code snippets

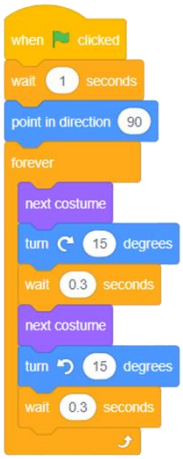
Sprite code











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

- Focus on adding and coding one instrument with basic animation
- Provide a pre-coded start button for students to build on
- Pair students for extra support .

Differentiation – Higher ability/extension

- Challenge students to add multiple instruments with unique animations
- Encourage them to explore advanced features, such as synchronising sprites to music
- Ask them to optimise their code by grouping blocks or creating custom broadcasts.

Plenary

- “What blocks did you use to make the instruments take turns playing?”
- “How do broadcast messages help sprites work together in Scratch?”
- “What would you add or change in your project if you had more time?”

Assessment questions

- How did you program the computer to choose an option randomly?
- What blocks did you use to determine the game’s outcome?
- How does simplifying your code help when building larger projects?
- What feature would you add to improve the game?