

LESSON 4

Music Video

60 minutes

Coding and Interactive Creators

WHAT THIS LESSON DOES

Embark on a creative journey to make your own music video using Scratch. Start by creating a new project, choose your favourite music from the provided files, and add it to your project. Play around with backdrops and sprites, adding code to animate them in sync with your music. Finally, let your creativity shine by adding unique effects and features to your video.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Develop skills in creating a new project on Scratch.
- Understand how to select and incorporate music into a Scratch project.
- Learn to code music playback in response to a user action.
- Gain knowledge on adding and manipulating backdrops for visual appeal.
- Learn to add and program sprites for interactive elements.
- Enhance creativity by exploring different coding techniques to create unique visual effects.

BEFORE THE LESSON

- Open scratch.mit.edu on your own device and check the school filter is not blocking it. Confirm you can create a new project.
- Devices for every pupil or pair, with sound working. Headphones are worth having so thirty music tracks do not play at once.
- Download or have ready the music files from step 2 so pupils can hear them and choose one.
- Try the green flag, forever loop and next backdrop code yourself once so you can spot where pupils get stuck.

Music Video

HOW THE LESSON RUNS

- Create a new Scratch project
- Choose the music
- Play the music
- Choose some backdrops
- Add some sprites
- Get creative!

TEACHING MOVES

1. Create a new Scratch project. Show them how to start a fresh project and delete the cat sprite by right-clicking it. A blank stage is the correct starting point here, not a mistake.
2. Choose the music. Let pupils listen to the tracks and pick one they like. This choice is theirs and it drives their motivation for the whole build, so give it a couple of minutes.
3. Play the music. Model dragging the 'when green flag clicked' block and snapping 'start sound' under it. Have them click the flag and confirm they can hear their chosen song before moving on.
4. Choose some backdrops. Point out the 'forever' and 'wait 3 seconds' blocks make the backdrop change on a loop. Remind them to delete the blank 'backdrop1' or it will show for three seconds each cycle.
5. Add some sprites. Show that each sprite carries its own separate code. Click a sprite first, then add its blocks. This is the concept pupils most need to grasp here.
6. Get creative! Hold this open. Show one effect from the examples, then step back and let pupils try their own ideas and combinations rather than copying all three.

WHAT TO WATCH FOR

- Pupils add sprite code while the stage or wrong sprite is selected, so the blocks attach to the wrong object and nothing happens as expected. Teach the habit of clicking the target sprite in the sprite pane first, every time, before dragging a single block.
- Pupils leave the blank 'backdrop1' in the project and cannot work out why a plain screen keeps appearing in their backdrop cycle. Walk them back to the backdrop list and have them right-click and delete 'backdrop1', then run it again to see the difference.
- Pupils expect the music to keep restarting or the effects to loop forever, then are confused when a repeat block finishes. Compare 'forever' and 'repeat 10' side by side. Have them predict which will stop, then run both to check their prediction.

DIFFERENTIATION

- Emerging: Give them the step 3 code fully modelled and let them get one working green flag and one sound before adding anything else. One working thing builds confidence. Pair them with a pupil who has the backdrop loop working so they can copy the block sequence together.
- Developing: Prompt them to add a second sprite with different code from the first, so they practise selecting a sprite before coding it. Ask them to change the wait time and predict what will happen before they run it.
- Proficient: Point them to the step 6 effect examples and challenge them to combine two effects on one sprite. Ask them to explain their sequence back to you and describe why the forever loop keeps the backdrops changing.