

GIFtastic

40 minutes

Coding and Creative Projects

WHAT THIS LESSON DOES

In this lesson, students will learn how to create their own GIF animations using Scratch. They will start a new project, upload GIFs, add code to animate them, and explore adding effects and sound.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the concept of GIFs and how they function as a series of still images played in quick succession.
- Learn how to create a new project on Scratch and upload GIFs into the project as sprites.
- Acquire the ability to animate GIFs in Scratch by stepping through the costumes or frames.
- Develop the skill to control the speed of animation in Scratch using the 'wait' block.
- Explore and experiment with adding effects to the GIFs and incorporating sound or music.
- Gain confidence in independently searching for and adding new GIFs to future projects.

BEFORE THE LESSON

- One device per pupil (or pair) with access to the Scratch website; open and test login or create-project before the lesson.
- Confirm pupils can download the step GIFs and upload them as sprites; note where files will save.
- Sound on or headphones ready if you want the Explore step to include music or effects.
- Check the school filter allows Scratch and image or animated-GIF search for the Explore step.

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HOW THE LESSON RUNS

Introduction

Create a new project

Upload the Earth GIF

Make it 'Animate'

Upload the Homer GIF

Make it 'Animate'

Explore

Finishing Up

TEACHING MOVES

- 1. Introduction. Show a familiar GIF if you can. Stress it is still pictures flipped fast, like a flipbook, not a real video with sound.
- 2. Create a new project. Get everyone on Scratch and into a new project together. Wait until the cat sprite is deleted before moving on.
- 3. Upload the Earth GIF. Guide save, then upload as a sprite. Open Costumes and scroll the 44 frames so they see each still is only a tiny turn of the Earth.
- 4. Make it 'Animate'. Build the green-flag, forever, next-costume stack together. Run it once so the link from frames to motion is obvious.
- 5. Upload the Homer GIF. Have them hide or delete the Earth sprite first so the stage stays clear, then save and upload the Homer GIF the same way.
- 6. Make it 'Animate'. Reuse the forever next-costume pattern, then add wait 0.1 seconds. Ask what happens if the wait is longer or shorter.
- 7. Explore. Set a short search window for new GIFs. Suggest one look effect or one sound only, then share a couple of stage demos.
- 8. Finishing Up. Name the skills aloud: upload GIF, step costumes, wait for speed, optional effects. Praise independent tries for next projects.

WHAT TO WATCH FOR

- Thinking a GIF is one magic moving picture rather than many still costumes played in order. On the Costumes tab, slow-click through frames and count them before any code runs.
- Forever next-costume with no wait makes the animation a blur, so pupils think the GIF is broken. Add wait 0.1 seconds, then try 0.3 and 0.05 so they see speed is controlled by the wait.
- Uploading the file but leaving it as a backdrop or not opening Costumes, so next costume seems to do nothing. Check it was added as a sprite and that the code sits on that sprite, not another one.

DIFFERENTIATION

- Emerging: Pair them for save and upload; you or a partner clicks Costumes while they watch the frames. Give the forever next-costume stack on screen to copy before they try wait on their own.
- Developing: They animate both given GIFs alone; prompt them only when adding the wait block. Ask them to explain why next costume needs a loop before they search for a new GIF.
- Proficient: Challenge a colour effect or a sound inside the same forever loop on a GIF they found themselves. Have them tune wait values until the motion looks natural, then show one example to the class.