

Create a character

40 minutes

Coding and Creative Projects

WHAT THIS LESSON DOES

In this lesson we will learn about some of the tools we can use to create computer art and create our own character.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Students will understand how to navigate and use the Scratch website to create digital art.
- Students will learn how to use the costumes editor in Scratch to modify existing sprites.
- Students will develop skills in using different graphic design tools such as the paint bucket tool, select tool, reshape tool, circle tool, rectangle tool, and line tool.
- Students will be able to apply their knowledge of these tools to change the color, shape, and size of different parts of a sprite.
- Students will learn how to add new shapes to a sprite, such as circles, squares, and lines.
- Students will demonstrate their understanding and skills by creating their own character using the tools and techniques learned in the lesson.

BEFORE THE LESSON

- Check that scratch.mit.edu loads on pupil devices and is not blocked by the school filter.
- One device per pupil (or per pair), charged and logged in so they can open or save a Scratch project.
- Open a blank Scratch project yourself and click the Costumes tab so you can model the toolbar live.

Create a character

HOW THE LESSON RUNS

Introduction
Open the Scratch website
Open the costumes editor
Change the colour of the cat
Delete the cat's tail
Make the cat's head bigger
Reshape the eyes
Add a circle
Add a square
Add a line
Create your own character
Wrap up

TEACHING MOVES

- 2. Open the Scratch website. Project the link, have everyone open scratch.mit.edu and start a new project before moving on. Wait until every screen shows the default cat.
- 3. Open the costumes editor. Point to the Costumes tab top right. Confirm pupils see two cat costumes before naming any tools.
- 4. Change the colour of the cat. Model paint bucket once: pick a fill colour, click one body area. Have them recolour several parts, not just one click.
- 5. Delete the cat's tail. Show select, drag a box around the tail only, then Delete. Check nobody selected the whole cat by mistake.
- 6. Make the cat's head bigger. Select the head, drag a corner handle outward, then drag inside the box to reseat it on the body.
- 7. Reshape the eyes. Switch to reshape and pull the eye handles so the shape changes, not only the size. Circulate and name what you see.
- 8. Add a circle. Select circle, set border and fill colours, click and drag on the canvas. Keep the shape simple so it stays editable.
- 9. Add a square. Select rectangle and hold Shift while dragging to lock a square. Say the Shift tip aloud before they try.
- 10. Add a line. Model line: click, drag, release. Ask for one deliberate line (outline, antenna, smile) rather than random strokes.
- 11. Create your own character. New sprite first, then build with the tools just practised. Remind undo/redo, copy-paste, and zoom. Robot is an example only.
- 12. Wrap up. Invite two or three pupils to show their sprite and name one tool they relied on. Keep it spoken, no typing up.

WHAT TO WATCH FOR

- Paint bucket floods the whole costume or the wrong region because areas are not closed. Zoom in and check for gaps in the outline. Click a clearly bounded patch, or fill smaller parts one at a time.
- Select grabs the entire cat, so Delete wipes the sprite or resize scales everything. Have them draw the selection box tightly around one part only, then confirm the highlight before deleting or dragging handles.
- Rectangle stays a long oblong because they forget Shift, or reshape is mixed up with plain select. Retell: Shift locks a square; reshape pulls shape handles, select moves or scales the whole selection.

DIFFERENTIATION

- Emerging: Pair them and let the partner drive the first tool clicks while they choose colours and point to the part to change. Stay on the cat costume and complete colour, delete tail, and one resize before any new sprite.
- Developing: Have them explain which tool they will use next before clicking, then add one new shape to the cat.
- Proficient: New sprite and a full character using copy-paste for repeated parts, with zoom for fine detail. Challenge them to combine circle, rectangle and line into one clear figure (for example a robot) rather than scattered shapes.