

The coding club is your place to learn and develop coding skills. We've created these pages with the Raspberry Pi Foundation to provide loads of projects, from building games to designing animations.



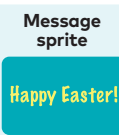
This project uses the Scratch programming language.

SCRATCH

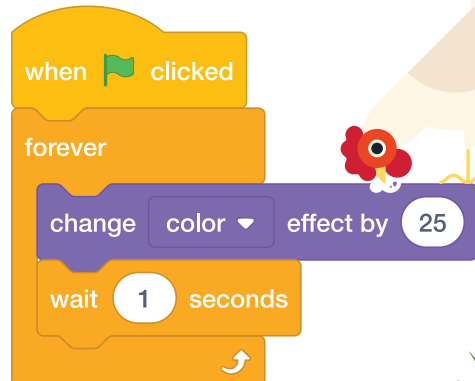
Create a digital greetings card

Send someone a virtual treat this holiday.

Build a backdrop



- 1 Open a new Scratch project at tinyurl.com/SN-CodeCard. Scratch is a drag-and-drop programming language.
- 2 Click on Choose a Backdrop button in the bottom right-hand corner of the screen and pick one. We went for an Easter-themed farm scene, but you can choose whatever you like. Maybe you want to create a birthday card – it's up to you.
- 3 Write a message onto the backdrop. You do this by clicking on the Choose a Sprite button and selecting the paintbrush icon. Then, select the text tool and type in your message. Choose your font and resize the box to fit. Click the Code tab (top left) and build the code below. This will make your message change colour.



Make your rabbit hop



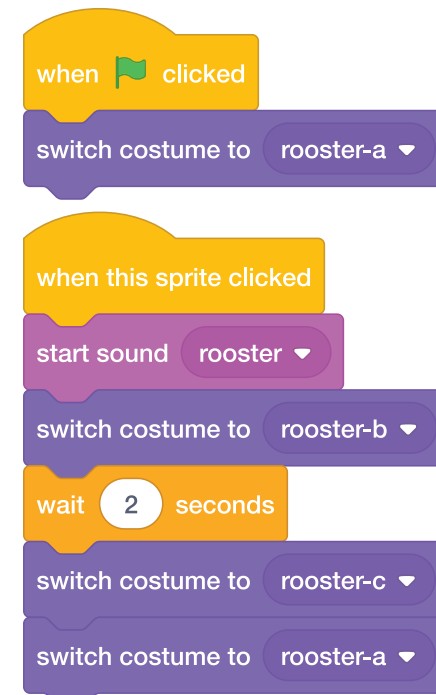
- 1 Click the Choose a Sprite button and select a rabbit. Click into the Size field (in the Rabbit sprite pane) and enter the value 60. This will make your rabbit smaller. Next, place your bunny where you want it.
- 2 Now, build the two scripts (right). Switching costumes makes your rabbit stand up (with a pop) when you click on it.
- 3 You can make your rabbit say something funny by typing a message into the "say" block. Our bunny says, "Have a hoppy Easter!"



Build a crow sound



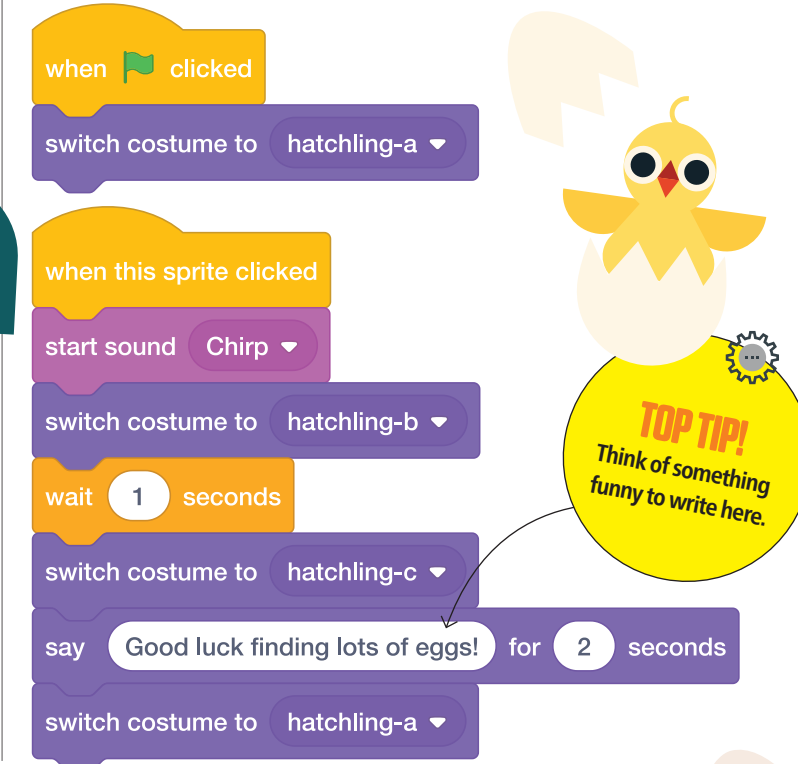
- 1 Click the Choose a Sprite button and select a rooster. Click on the rooster and drag it to where you want it on the card.
- 2 Assemble both scripts below. The top one sets the rooster to a standing pose when the green flag is clicked. Adding a "start sound" block makes the rooster crow, and switching costumes gives it an action.
- 3 Click the green flag to run the digital card. Test out the actions of each sprite by clicking on them.



Hatch an egg



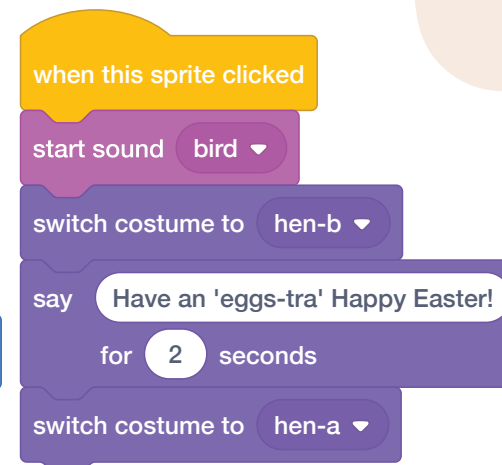
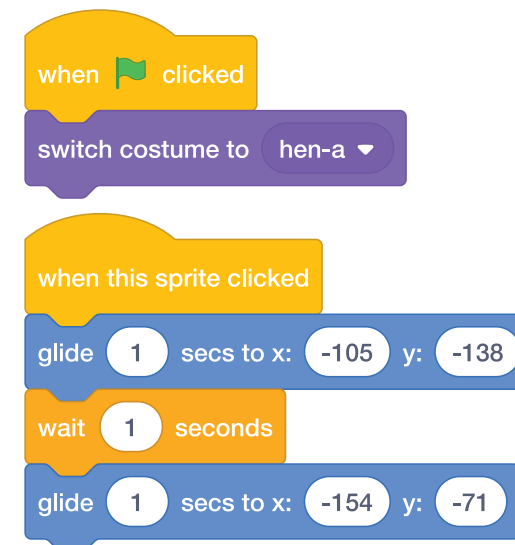
- 1 Click the Choose a Sprite button and select the hatchling sprite. Click and drag the egg to position it on the card.
- 2 Construct the two scripts below. These make the chick pop out of the egg and say "Good luck finding lots of eggs!". You can choose your own message and type it into the hatchling's "say" block.



Make your hen walk



- 1 Click the Choose a Sprite button and select a hen. You will need to change the Size value to 60. Position the sprite in the hen house.
- 2 Build the three scripts (right). The first two scripts make the hen cluck as she walks. The third makes her move down the ramp.
- 3 Test your digital card by pressing the green flag and clicking on each animal.
- 4 If you want to share your digital greetings card, you will need to download the project and convert the Scratch 3 (.sb3) file format to an html file, which can be viewed on a web browser. Select Save to your computer from the File menu on the nav bar. Ask a grown-up for help finding a website that converts Scratch files into html.



The Raspberry Pi Foundation is a UK-based charity with the mission to enable young people to realise their full potential through the power of computing and digital technologies. Discover more step-by-step coding projects at rpf.io/scienceandnature

