

## How to make a loop the loop roller coaster

- 1** Open Scratch on your computer and upload the 'Loop the loop basic' resource.
- 2** Experiment with the programme. What happens when you click the green flag? Can you move the arrow by dragging and dropping?
- 3** Click on the 'Scripts' tab and look at the blocks that are being used to create the loop the loop. Make some simple changes to the blocks such as the number of repeats. What happens?
- 4** Spend some time exploring other blocks. Can you make the arrow loop the loop twice?
- 5** Try changing the sprite under the 'Costumes' tab or add a new backdrop.
- 6** When you feel ready to move on, upload the 'Loop the loop progression' resource.
- 7** Explore the blocks that are being used and find out what happens when the green flag is pressed. Learn how to clear the screen and reset the carriage to the centre of the screen so you can keep testing and debugging your code.
- 8** Make the roller coaster carriage (the red dot) stay as close to the track as possible. When you have made it loop once correctly, try to make it loop multiple times, moving forward slightly between each loop.
- 9** Next, try to make the carriage continue looping without stopping and build in an emergency stop button.
- 10** Make the carriage reverse and add roller coaster sounds and a theme park background.
- 11** Name and save your project. Scratch will automatically save your work if you are using the web (v2.0) version.

