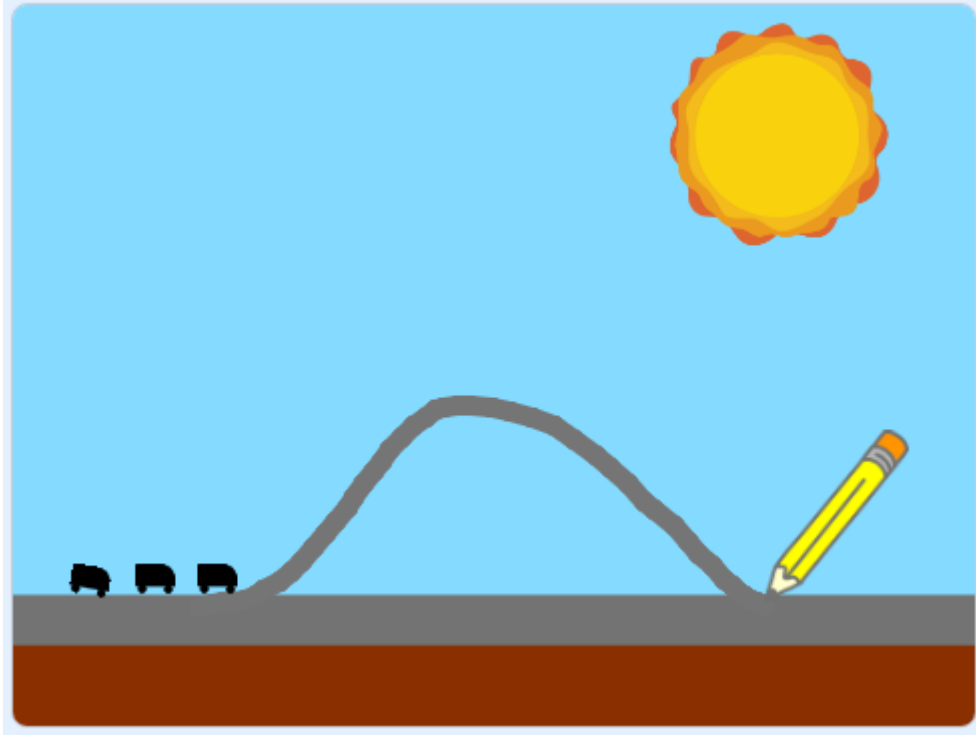


Draw your own rollercoaster!

Inspired by Year 6, this project is based on the Code club Cats! project, found at <https://projects.raspberrypi.org/en/projects/cats-scratch2>.



The cars will run along whatever track we draw with the pencil! Be warned, these are not detailed instructions...

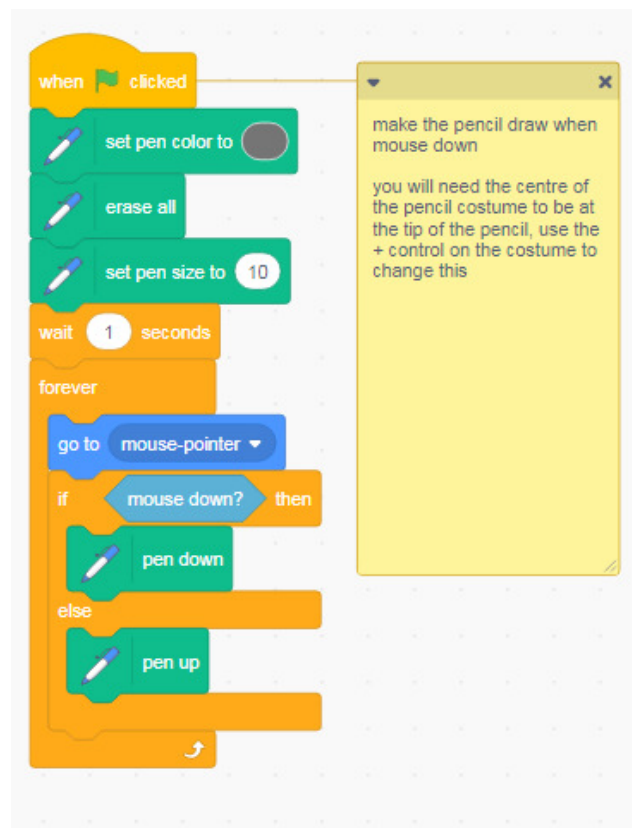
Step 1: Backdrop and sprites

- Draw a backdrop, something like the one above – I chose grey for the track.
- Draw a sprite for the rollercoaster car, but make sure it is not the same colour as the track.
- Find the Pencil sprite and the Sun sprite from the Scratch library

Save your project

Step 2: Code for the Pencil

- Choose the Pencil sprite, and add the following code:



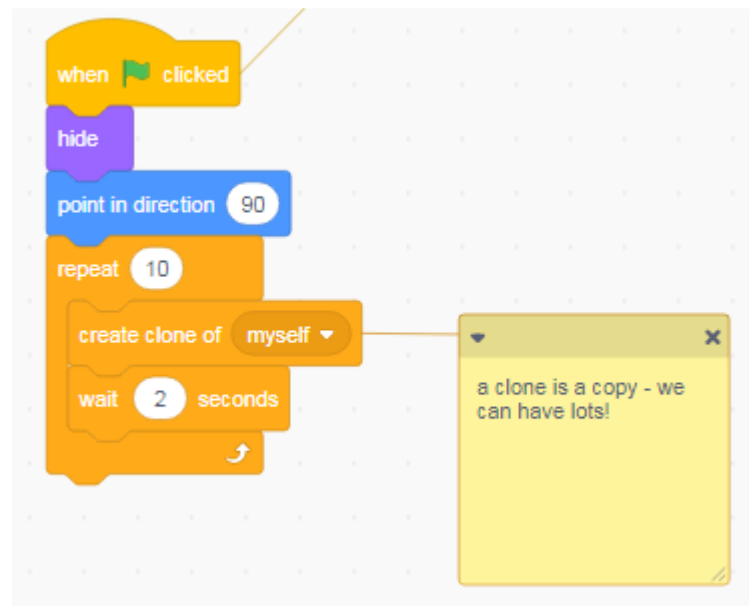
- You don't need to add the comment, unless you want to!
- Once you've added the code, test that the pencil can draw on the backdrop, after you have clicked the green flag. If it doesn't seem to work on the small screen, make the project fullscreen and try again (this is a bug in Scratch).

Save your project

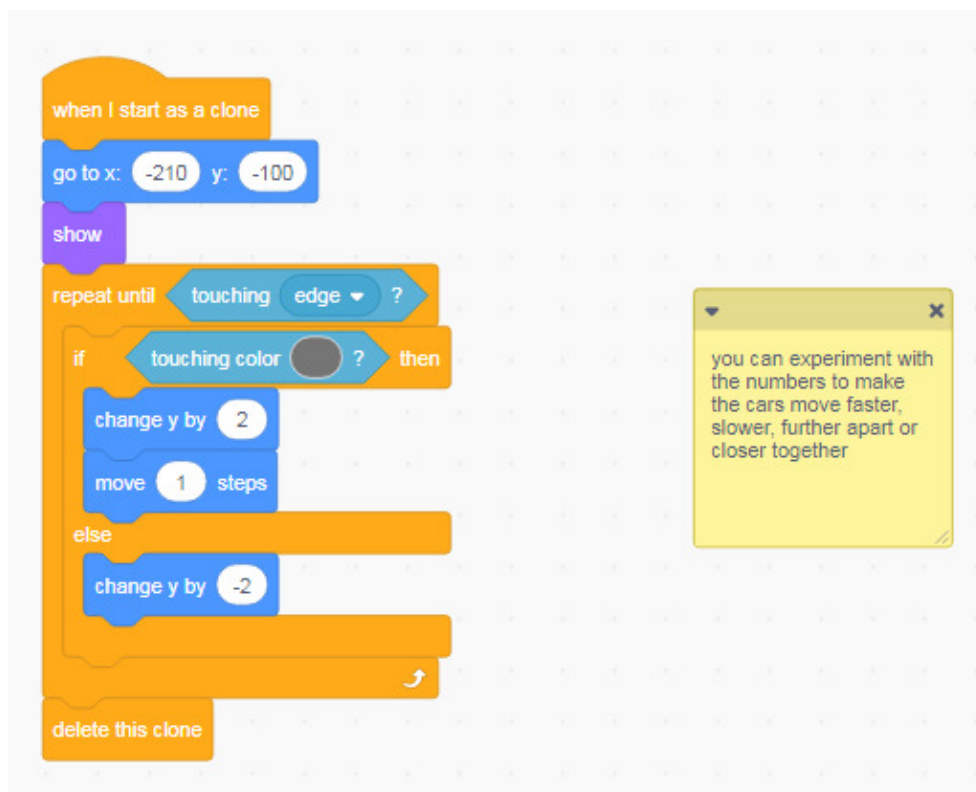
Step 3: Code for the car

- You will have noticed the cars are all the same, because they are clones (copies) of our single car sprite. This is much easier than having 10 separate sprites!

- Add the following code to your car sprite to create the clones:



- If you test this, you won't see anything, because we have told the clones to hide. We need to give the clones some code to run when they have been created, so add the following (still on the car sprite):

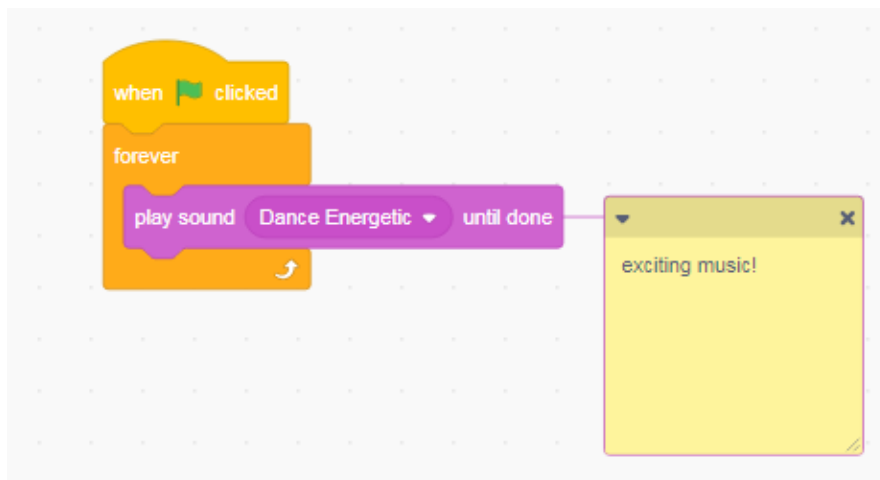


- Make sure that you use your track colour in the 'if' statement (where I have used grey).
- This code tells the clones (cars) to move up if they are touching the track, or move down if they are not touching it. Then when they touch the far edge of the screen, they will disappear.
- Test your code! Go back and check anything that doesn't work, it will probably only be a small mistake somewhere.

Save your project

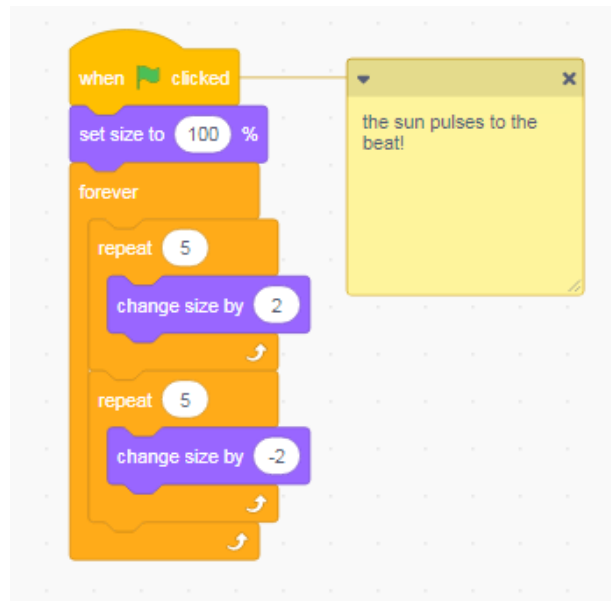
Step 4: Code for the sun

- All we need now, is to make it a bit more exciting, as if we were really at the funfair!
- So let's add some music, with the following code:



- You can choose any music you like, but the loops will work best, as they are longer.

- And let's make the sun dance!



Save your project

More ideas

- Maybe you could draw some detail on the backdrop, to make it look more interesting. Remember though, don't use the track colour anywhere except the track, or your cars will go off in strange directions!
- If you have the time, you could design some other fairground rides, and make this into a project with many levels.

- You could also experiment with code to tip the cars up as they go up, and down as they go down, to make it look more realistic:

