



In this project you will find out how to create simple animated cartoons.

The character in our cartoon sets out on a walk in the park but soon realises she has forgotten something!

Key coding points to look out for:

- Changing the costumes of sprites to make them animated – walking, running or changing direction. (Changing ‘costume’ does not always mean changing what the sprite is wearing, it can also mean a change to the position of its arms, legs or wings which lets us create animations)
- Adding a pause in the coding to control the speed of the animation
- Using Thought Bubbles just like cartoons and comics
- Adding a background to our cartoon

Information!

If you haven't used Scratch before we suggest you first take a look at our introductory project Coding with Scratch – First Steps. You can go directly to the project by clicking the link below.


[Coding with Scratch – First Steps](#)

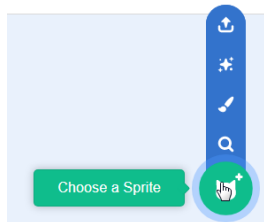


Let's start coding

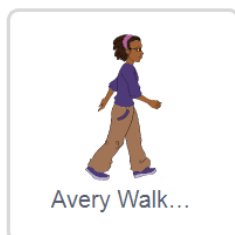
- Open a new Scratch project.
- Delete the cat sprite as it is not needed for this project.



- Now go to the  button at the bottom right of the screen and click to select a new sprite.



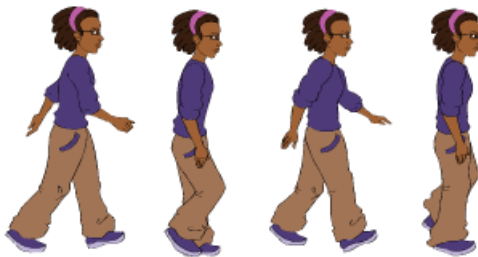
- From the scratch library click on **Avery Walking** to select your new sprite



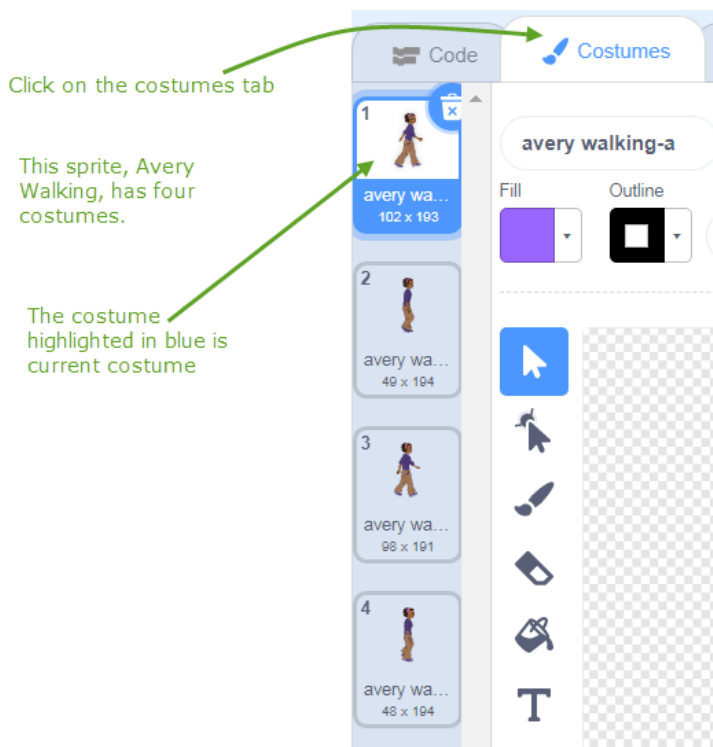


Meet Avery

Avery has four costumes each with different poses of arms and legs.

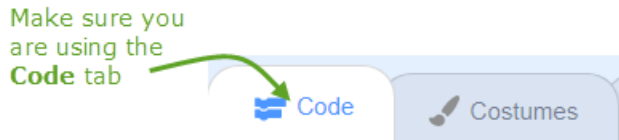


When we are working with a particular sprite we can see what costumes are available by clicking on the Costumes tab.

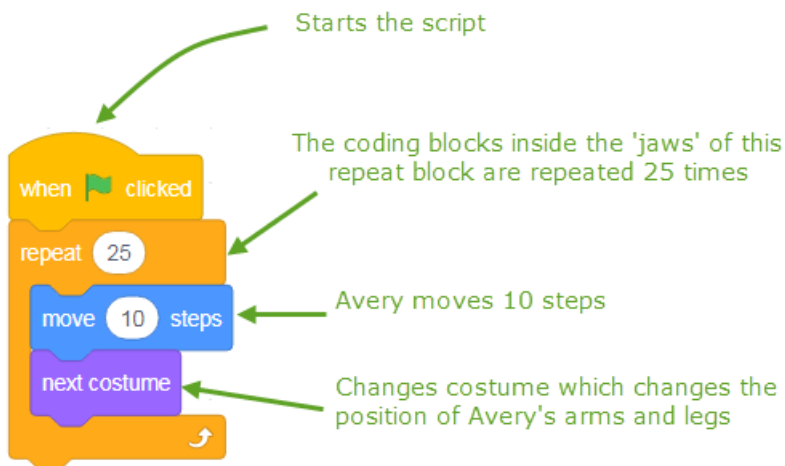




Add some code



We can use Avery's four costumes to make it look like she is running across the stage. The coding blocks for changing costumes are part of the **Looks** blocks. Here is the code:



Click the green flag icon to make the script run.

Information!

Remember if a sprite gets to the edge of the stage you can simply click on it and drag it back to the centre of the stage - or indeed any other position on the stage.

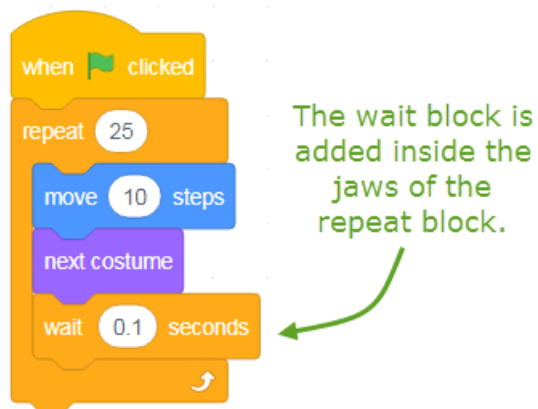


Challenge!

Try making the number of steps negative (minus) – what happens?

Walk don't run!

We can control the speed Avery walks by adding a wait block to our code. Click in the white circle and change the wait to 0.1 seconds (this is one tenth of a second). Here's what the code should look like.



Now when you run the code Avery should be walking across the stage not running.

Challenge!

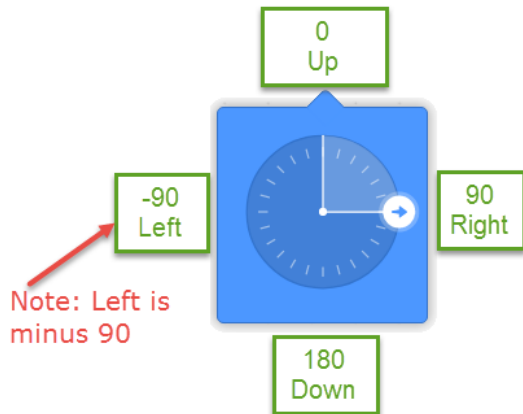
Try different numbers in the wait block and see what happens. For example if you change it to 1 second Avery walks very slowly.



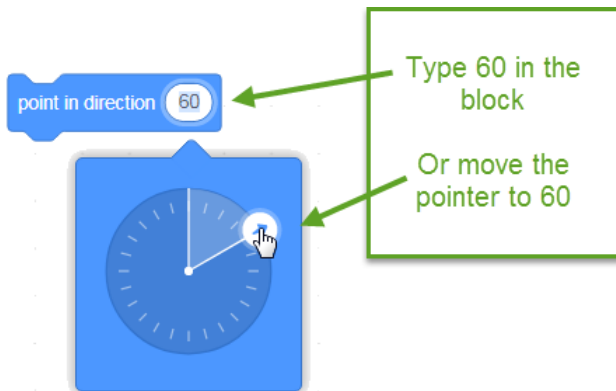
Walking uphill

point in direction 90

The **point in direction** block from the Motion blocks controls the direction in which the sprite is facing. Click in the white oval and you can choose the direction.

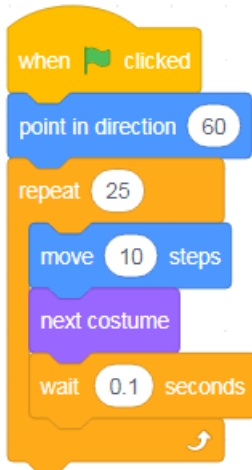


Here we want 60 to make Avery walk uphill.





Add the 'point in direction' block to your code so that it now looks like this:

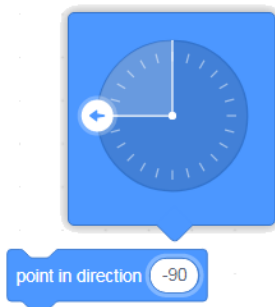


Click on the green flag to run the code.

Creating a simple cartoon

Let's put all this together to make a cartoon where Avery walks along a path, then stops while she thinks she has forgotten her bag and then turns around and walks back.

To make Avery turn around we will need to use a second **point in direction** block and move the pointer (or change the number) to -90, like this:



When you click on this block Avery turns around but she also turns upside down!



We can solve this problem by using the **set rotation style** block from the Motion blocks and

setting it to 'left - right'

Think bubbles

The **think** block is from the **Looks** section of the code blocks.

Click in the white oval and change the words to **Hmm...I think I forgot my bag.**

Now put all this together in the following code:

And then run the code to check it works okay.



Change the backdrop

Finally we can add a new backdrop (or background) to create some scenery to make the cartoon more realistic.

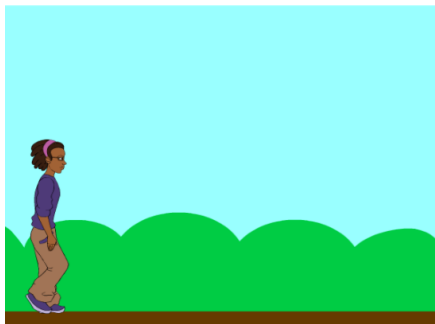
Firstly go to the 'Select Backdrop' button



Click on the button and look through the backdrops and choose one you like. Here we have chosen Blue Sky because it gives Avery a footpath to walk along. Double click it and it will be added to your stage.



blue sky



Using your computer mouse, drag the Avery sprite so that her feet are touching the brown path and the final animation looks like this.

The click the green flag icon to run the cartoon!

Challenge!

Have a look at some of the other sprites in the Scratch library that have more than one costume and see what animations you can create.



Two good ones to try are:

Ballerina for dancing and



Parrot for flying.