



Knock Knock

In this simple project you will have two sprites telling a joke. You can also use this idea in lots of other ways to have all sorts of conversations between sprites – for example to tell a story or to ask questions.

Key coding points to look out for are:

- Adding new sprites
- Writing the code for each sprite, making sure you select the right sprite
- Using the Green Flag block to start two scripts (programs) at the same time
- Use the wait block to co-ordinate the two sprites
- Change the backdrop

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](#)

The Joke

This is the (rather silly) joke we are going to have the sprites tell:

Sprite 1: Knock knock

Sprite 2: Who's there?

Sprite 1: Lettuce

Sprite 2: Lettuce who?

Sprite 1: Lettuce in, it's freezing out here!

Sprite 2: Ha ha. That's funny.

Of course you can use your own joke - which will probably be funnier!



Let's start coding

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



- Add two new sprites.



Add any two sprites you want to have in your game. To add a sprite click on the



button at the bottom right of the screen. And you will see all the available sprites. Just click on the sprite you want add. We chose a penguin and a snowman.

Alert!

Selecting a Sprite to work on

When you have more than one sprite in a project it is vital to make sure you have selected the correct sprite when you start writing code.

You can see in the Sprites area which sprite is selected because the active sprite is highlighted in blue. You can easily switch sprites by clicking the one you want to work on.



Here the Penguin Sprite is highlighted as the active sprite.



The code blocks you will need:

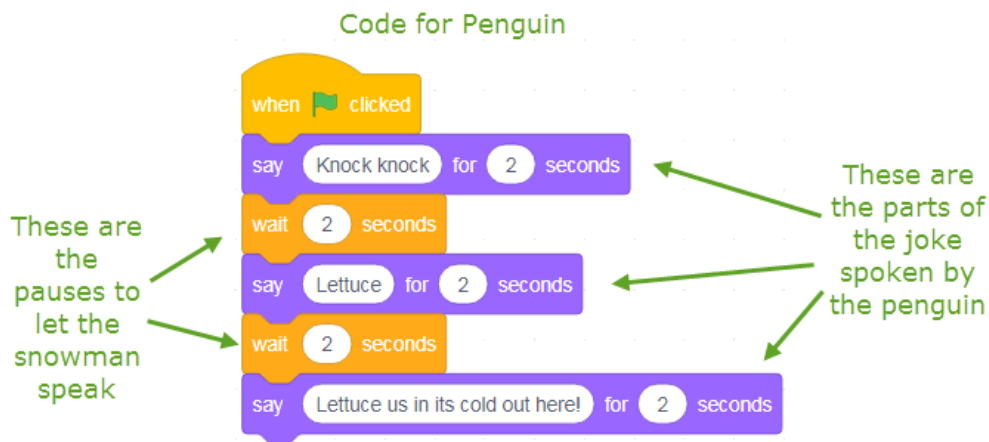
From Events Blocks: 

From Looks Blocks: 

From Control Blocks: 

Coding the Penguin Sprite

Create this code for the Penguin sprite.



Change the time in the wait blocks to 2 seconds because we need to allow enough time for the other sprite, the Snowman, to say his parts of the joke. If you are doing your own joke or story you may have to experiment with the amount of time needed.



Coding the Snowman sprite


Now select the Snowman sprite and add this code.



Play the game

Click the Green Flag button to start the joke.



What is happening here is that when the green flag  button is clicked the coding for both the penguin and the snowman start at **exactly** the same time. We use the 'say' blocks and the 'wait' blocks to let each sprite say their part of the joke and then wait for the other sprite to speak.



Change the backdrop

Now let's add a new backdrop to make the game look more interesting.

Firstly go to the 'Select Backdrop' button  which is at the bottom right of your screen.

Click on the button and look through the backdrops and choose one you like. Here we have chosen 'slopes' which is a nice snowy scene –just right for snowmen and penguins! Double click it and it will be added to your stage.



slopes

Backgrounds and Backdrops

In case you are wondering, in Scratch Background and Backdrop are the same thing.

Scratch calls the background picture on the stage the Backdrop.

So the final game looks like this.





What next?

Use your own joke. Try changing the code so that the penguin and snowman tell your favourite joke. You could use different sprites and a different backdrop.

You will obviously need to change the 'say' blocks but you may also need to change the amount of time in the 'wait' blocks to make sure the sprites don't interrupt each other!

Broadcasts

In this game we used the wait blocks to control when the two sprites spoke to each other. Just so you know, Scratch has another way to do this which is called Broadcasts where sprites can send messages to each other. So look out for Broadcasts when you are doing other Scratch projects.