

Start Scratching Session 2

Description

Class begins with students logging into their Scratch accounts from the Scratch website, allowing them to start from the program that they created for session 1. One main focus of this class is to expand on two concepts from session 1, changing the sprites colour and events. It also introduces a new concept of waiting, which will be further developed in session 3.

How is it tailored for 5-7 year olds?

- Minimum wait time of 1 second used to avoid decimals - typically introduced in year 3 mathematics
- Negative numbers (e.g. to revert color) avoided - typically introduced in year 4 mathematics

What is covered

- Scratch account, login & saved project
- Changing how a Sprite looks
- Development of Events and Control (When key pressed, wait)

Steps

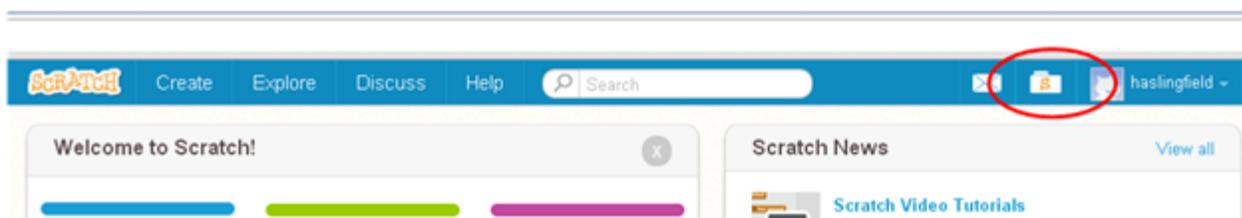
1. Sign into Scratch

Students begin on the Scratch website, and are shown how to sign in by clicking the 'Sign in' button and entering their unique Username and Password. These should be provided on the handout, ensuring that each student gets the same account as they used in session 1.

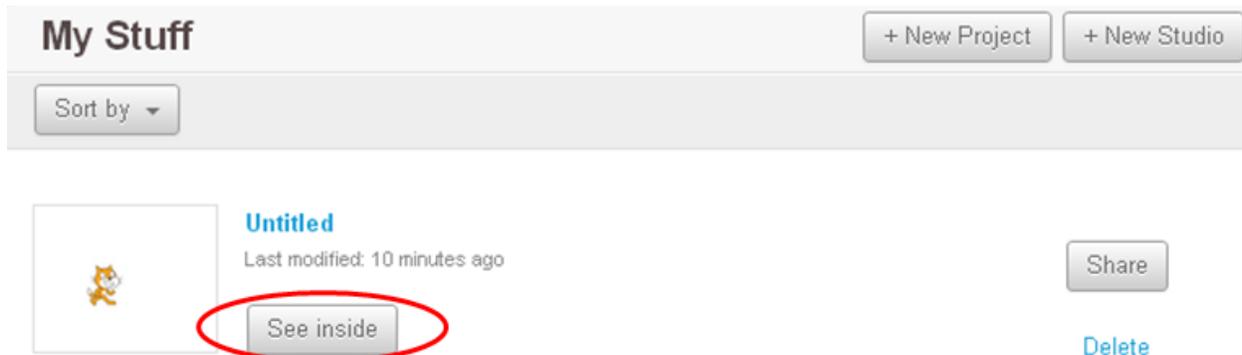


2. Open Session 1 project

Open the projects area by clicking on the folder icon on the top right with 'S' on it.



Open the project from session 1 by clicking the 'See Inside' button.



Be sure that the program looks like the image below, and if not make any modifications needed. Click on the green flag to be sure that it still works.



3. Changing color when a key is pressed

Explain that we want the cat to change colour every time we press the space key.

Ask the students to click on the 'Looks' category in the block palette. **Ask the students if there are any blocks that we could use to change the cat's color.**

The extra challenge in session 1 also used this 'change color effect by 25' block.

Drag it into the script area underneath the main program, and show that clicking on it changes the color of the cat. Explain that the number tells us how big a change it is, the larger the number the more different the new color is. Ask the students to click on the 'Events' category in the block palette. **Ask the students if there are any 'top hat' blocks that we could use to help us to change the cat's color when the space key is pressed, and ask them to try do this.** Mention that the solution below is called a 'split task' program, all this means is that the cat will be doing two things at once.



4. Drop down menus on blocks

Point out the little black triangle beside the word 'space' on the 'when space key pressed' block is pressed. Show that clicking this arrow allows keys other than space to be selected. Have the students choose which key they want to use to make the cat change colour.

Also point out that there is a triangle beside the word 'color' in the color block. Have the students pick one of the other options and see what effect it has on the cat.

5. Introduce the 'wait' function

Explain that we want to now make the cat change color when we press the space key, wait for 2 seconds, and then change back to being his normal color. **Open the Control tab in the block palette and ask the students if there is any block that could help us to make the cat pause (or wait) for 2 seconds.** Once the students have identified the 'wait 1 secs' block, ask them to place it under the 'change color effect by 25' block and change the wait time to 2. **Now ask the students what block they should put under the 'wait 1 sec' block to get the cat to change back to his normal color. Explain that his normal color is color effect zero.** Allow them to work through this, and guide them to the solution below.

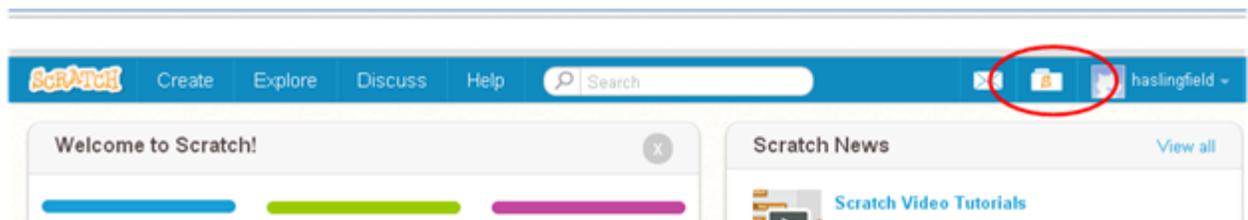


6. Review useful techniques

- Remind students that if you want to delete a script that you accidentally dragged into the script area, you can just drag it back to the block palette.
- Remind students that to separate blocks, you click and drag the top block that you want to move.

7. Name project before saving

Point out the word 'Untitled' above the stage, and tell students that this is where they can type the name of their first Scratch project. Encourage them to type a unique name, such as *Alices Cat*. Once the project is saved, click on the folder with the 's' to go back to the main projects area. Show the students that their project is now saved with whatever name they chose to give it.



Extra Challenge (to be done after task 6):

Find the following two blocks, and use them to make the cat get bigger each time you click it.

