

Start Scratching Session 3

Description

Class begins with students opening a new project that they will use to create a Scratch movie. A key idea for this session is to develop the concept of a sprite by creating two with different scripts. It also gives students an introduction to importing both sprites and backgrounds, and will lead on to animation in session 4.

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
- Extra challenge allows for significant variation in ability, from incremental changes to creating a whole new program

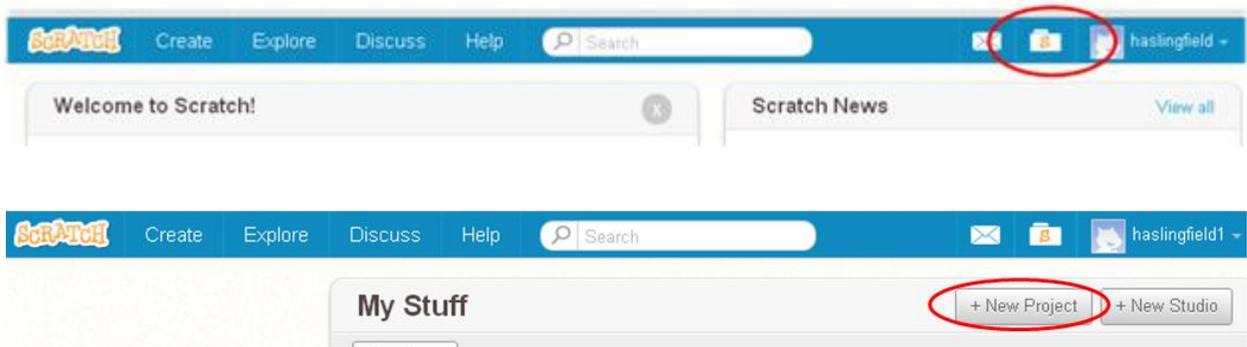
What is covered

- Importing sprites
- Scripts associated with particular sprites
- Speaking/Thinking
- Further Development of Control (wait)

Steps

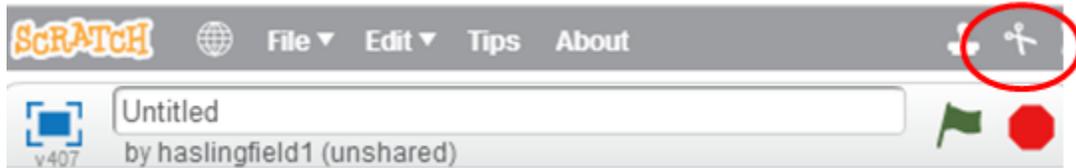
1. Sign into Scratch and open a new project

Point out that since this a new project, we don't have any scripts or programs written for our sprite yet.



2. Get rid of the cat

Say to the students that they are probably sick of the cat now, so we will work with some new sprites. To delete the cat, click on the scissors above the stage, and then click on the cat.



3. Import some new sprites

Tell the students that there are loads of sprites available in Scratch, and that they can access them by clicking on the 'Choose sprite from library' icon just below the stage.



Show the students that they can select a new sprite by double clicking on the picture of the sprite in the library. Ask them to look for sprites called *Gobo* and *Nano*, and bring them both into their project. Note that both of these sprites have different costumes available, which will be useful in the next session

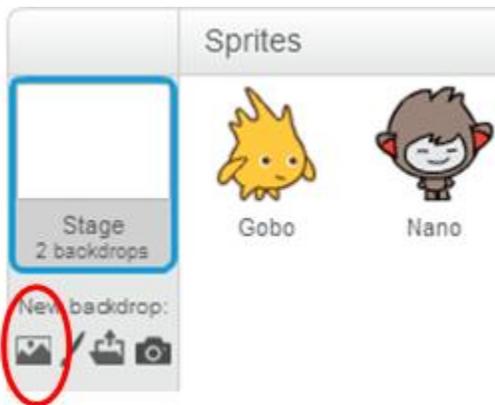


Mention that we can make our new sprites either bigger or smaller by using the 'Shrink' and 'Grow' buttons above the stage, plus we can move them about by clicking and dragging them.



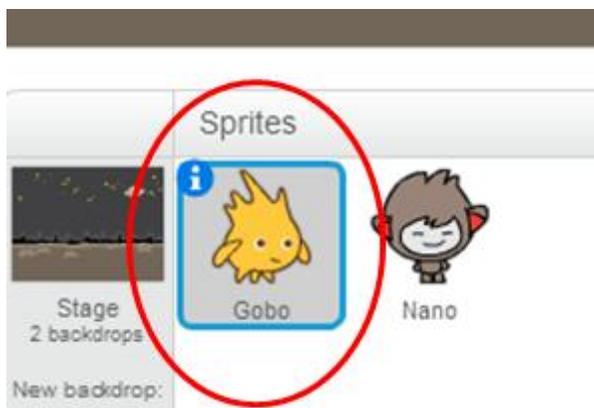
4. Add a background

Ask the students where aliens live. Explain that the white area behind the sprites is called the stage, and we can change how it looks. We can choose a new look for the stage by clicking on the little picture of mountains underneath the 'New backdrop' label under the stage. **Ask the students to look at the themes, and to guess at which one might work best for aliens.** Ask them to double click on one of the 'Space' backdrops.



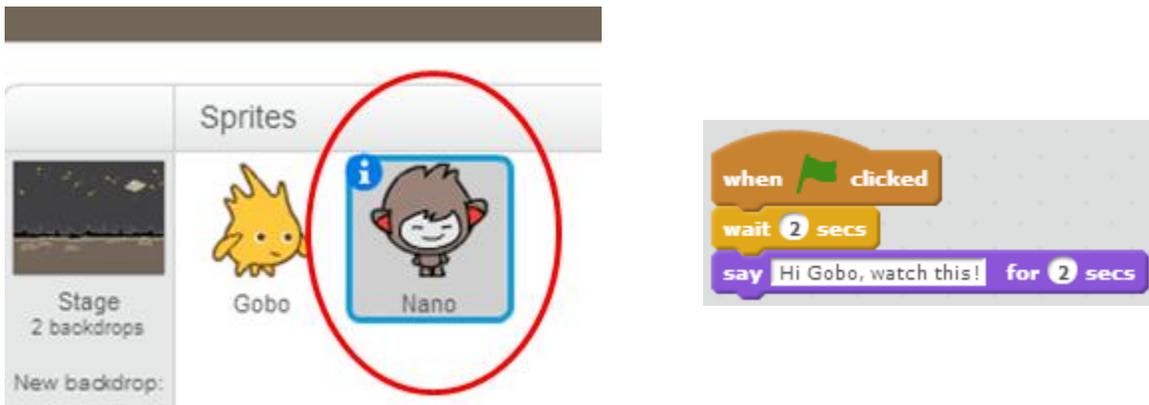
5. Use a speech block for Gobo

Demonstrate that by clicking on the small pictures of Gobo and Nano under the stage, we can bring up a different script area for each sprite. Say that we will have to be careful when we are programming to put the scripts that we want in the correct sprite's script area. Show this by putting the 'Say Hello! For 2 secs' block in Gobo's script area. Mention that using this block will not cause Gobo to make any sound, rather a speech bubble will appear for the amount of time we choose. Recall that we can change anything that is in a white space, so change Gobo's message to 'Hi Nano'. Like we did in the previous session, choose the 'when green flag clicked' top hat block to begin our program.



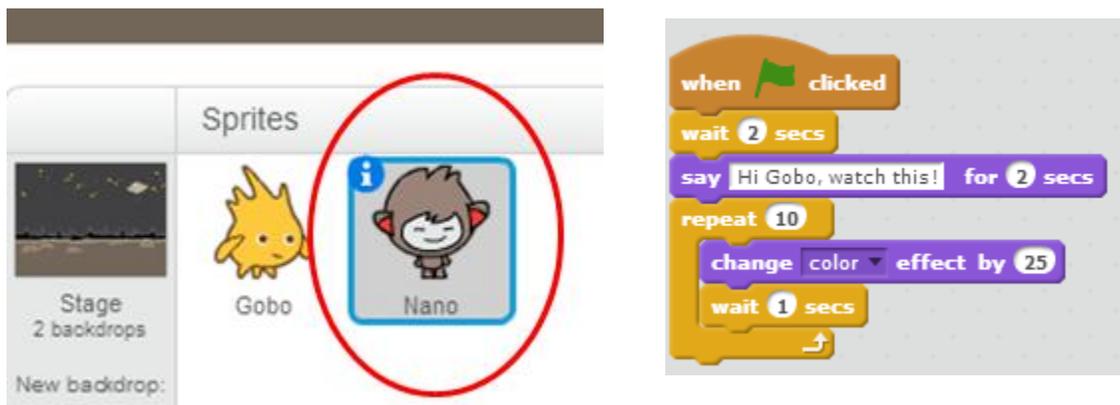
6. Start a conversation

Explain that to make Nano do something, we have to first click on the small picture of Nano under the stage to bring up his script area. Note that there is nothing here yet because we have not asked Nano to do anything. Initially bring a 'when green flag clicked' top hat block into Nano's scripting area. **Explain that we want Nano to answer, but only after Gobo has finished talking. Ask what the two blocks are that we need to do this.** Bring the 'wait 2 secs' block and the 'say Hello! for 2 secs' block into Nano's area and make the program shown below.



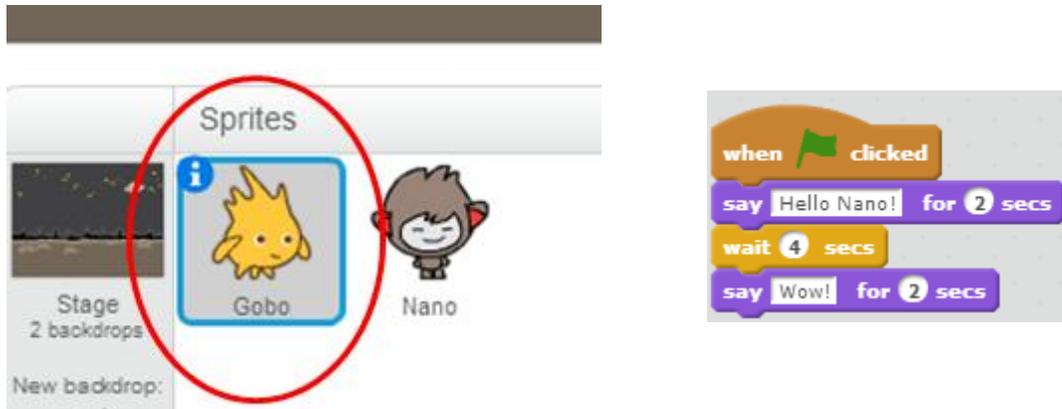
7. Have Nano do a trick

Say that so far we have had Nano and Gobo talk to each other, but we can also use some of the other blocks that we saw in previous sessions. For example, let's have Nano change color for Gobo. **Ask how we could make Nano change color lots of times.** Show that just putting a 'Change color' block into a repeat loop causes the colors to change too quickly. **Ask how we could make Nano change color wait for a second, and then change color again.**



8. Have Gobo reply

Finish the conversation by having Gobo say 'Wow!', and explain that Gobo should say 'Wow!' after Nano changes color. **Ask how many seconds he should wait. When a number is suggested, try it out in front of the students and see how the full movie looks. Try changing 'color' to one of the other options.**



Extra Challenge: Have the students create their own movie. They can use the same sprites & background as shown in this session (with minor changes to the scripts), or choose their own. They can use other blocks such as move, if on edge bounce etc. **Crucial to emphasize that they need to plan what the sprites should do rather than just randomly adding blocks.**