

My Scratch Project

Teachers book



Lesson1: My characters

Keywords:

Script: a collection of **code blocks** that controls (programming logic) and influences the **sprite**.

Stage: the background area in the Scratch environment (**IDE**). The section showing the animation.

Sprite: a 2d image on a transparent background that can be controlled and or moved around the **stage**.

Lesson 1. Introduction to scratch

Students will eventually be working in pairs. This can be organised prior to the event.

STARTER

Show the students the scratch environment. Explain to the students that they are going to be creating "an animation" (game/movie) using Scratch.

Play a cartoon from CBBC site. Let the children choose. Get them to describe the characters. What are they like, what do they move like. What do they look like.

During the cartoon pause the film and asked the students to suggest what might happen.

Who, where, when, problem, the end

MAIN:

Students to draw their character(s) in their workbooks. Describe in sentences their character. Repeat for students who are good illustrators and have written detailed sentences.

PLENARY:


As a class in front of the board. Ask different students about their characters and environments. Create a short animation using the students ideas. Go through SCRATCH slowly when carrying it this task. Explain the required blocks and what to click. They won't remember but it allows them to unrated the WHY behind the animation.

Add 1 sprite, background, using a or repeat block, . Try get the student to guess the correct block. Lots of hints :)

Lesson2: Sprites & movement

Lesson 2

STARTER.

Demo the animation created for the plenary of lesson1. Now show the students the motion block options and get them to modify the code. See what happens, it is usually very funny! Next ask the students about speech and think bubbles: where do they think they are found? (Looks )

Story blocks. How ever your school does it. Modify the words to match what the students re familiar with such as **Who, where, when, problem, the end**




MAIN:

Students to draw the storyline / storyboard (s) in their workbooks. Annotate (add notes to) each of the scenes. Give the students scrap paper to work out was is going happen in each scene.

Computer work: **in pairs**. They open scratch and add **one sprite each**. Each students adds the codes blocks to control their sprite, including changing the name of the sprite. Very little help or input from the teacher if possible. Let the pair work out the problems and resolve any conflict, where and when appropriate.

PLENARY:

Ask the students what new blocks they used (if they had computer work). Ask the students about their problems for their stories. The rest of the class to come up with different solutions to that problem.

demo another animation: Add more to the one used for the starter. change the background to match the topic that you are currently teacher. Add2 sprites and get them to say hello () to each other and repeat X times (). Again let the students try and work it out. Remember to add  So that they are not talking at the same time. Give lots of clues by displaying the code blocks ;)

Keywords:

Code blocks: a graphical (picture) command used in the creation of a **script**.

Look blocks: these are **code blocks** that effect the **sprite** and or **background** appearance and displays text.

Loop: this is a collection of one or more **code blocks** that are **repeatedly** executed.



Lesson3: listen & see

Lesson 3 sound blocks

STARTER. Play video tutorial (2:20) <http://info.scratch.mit.edu/node/165> check if this link works at school. It is available on YouTube http://www.youtube.com/watch?v=6OV_rJmPn4M&feature=youtube_gdata_player

This video tutorial adds in about playing sounds.

MAIN: adding sound to their animation. Background or individual effects. Students to write out the instructions to control their first scene. Annotate (add notes) to each of the scripts when on the computer (right click add notes: this is also useful for assessing and commenting on their work). Give the students scrap paper to work out the instructions for each scene.

Computer work: same as last time. **in pairs**. They open scratch and add **2 sprites, background** and try to add sounds or **sounds** effects . Each students adds the codes blocks to control their sprite. Very little help or input from the teacher if possible. Let the pair work out the problems and resolve any conflict, where and when appropriate.  

PLENARY:

Ask the students what effect the sound had on their animation. Ask the students about the problems they had doing the task. It might be that this needs to be recapped fully next time. Open the scratch project you are creating with the class.

demo another animation: Add sounds selected by the students. Does it change the feel of the animation. Add another sound that only plays when you press the space bar.

 **This will lead into the next lesson.**

Keywords:

Sound blocks: they control the playback and volume of musical notes and Audi files.



Hat blocks: these are **code blocks** that create the event-driven **scripts**.

IDE: Integrated development environment. This means that you can code and execute within the same environment. Not the technical definition but one that makes sense;)

Lesson4: who is in the front?

Lesson 4 layers

Starter:

Using your class animation.   o move such as a bus and a man running for the bus. Show one sprite moving in front of the other. Get the students to figure out that the bus should be in front.

MAIN: adding depth to their animation. Different sprites interacting with each other or having individual effects. Students to write out the NEW instructions to control their first scene. Annotate (add notes) to each of the scripts when on the computer (right click add notes: this is also useful for assessing and commenting on their work).

Computer work: same as last time. **in pairs**. They open scratch and add **new sprites and background**. They are working on their project piece. They will work on their animations for this and the next lessons.

PLENARY:

ask the students what they would like their sprites to do that they can't do now. New blocks for next lesson

demo another animation: Add effects selected by the students. Add another sprite that only changes it's effect when it touches another sprite  &  . This will lead into the next lesson. It is in the sensing "palette"

Keywords:


Costumes: Images that are used to represent a **sprite** on the **stage**. This can making the dragon breathe fire or changing the background within a game to show if you have won or lost. There are many uses for this **code block**

Sensing blocks: these are **code blocks** that can be used to determine the distance from the **sprite**, whether they are touching another **sprite** and location of the **mouse-pointer**.



Lessons 5-6: let's get coding

Lesson 5 carry on

Starter:

Again using your class animation from the previous lessons. Show the students how to change scenes by changing the background costume. This can be done by using wait or broadcast. Select the wait X secs block if you feel that they won't understand the broadcast and receive method. 

MAIN: Pairs continue to work on their animation using their workbooks to help them work independently.

Computer work: same as last time. **in pairs**. They open scratch and add **new scenes by using background changes**. They are working on their project piece. They will work on their animations for this and the next lesson. Use the  or  blocks for scene changes

PLENARY:

Again **check** that they have saved their work or do it for them if they are very young. I found that this was the best option when dealing with their final projects. Lesson 6: Open one or more of their projects and demo them to the class. A celebration of their hard work

Save and Publish. Create a teacher or school gallery on the scratch website. Click on create then add a name, description and specify who can add (upload) projects. galleries be totally private, public or "my friends".

Handout certificates. Print and sign prior to the last lesson.

Keywords:

Debug: debugger is a program or utility that can be used to execute an application within a special environment. This environment allows you to slow down and or monitor the **scripts** as it is running. Checking for errors.

Broadcast: broadcast message is an electronic message sent between sprites as a means of coordinating the application activities.

Publish uploading projects to the Scratch website. Add tags to put them into a category. Once upload they can be played from the scratch site. Create a gallery for each class.

REFERENCE

Here are all the blocks:

