



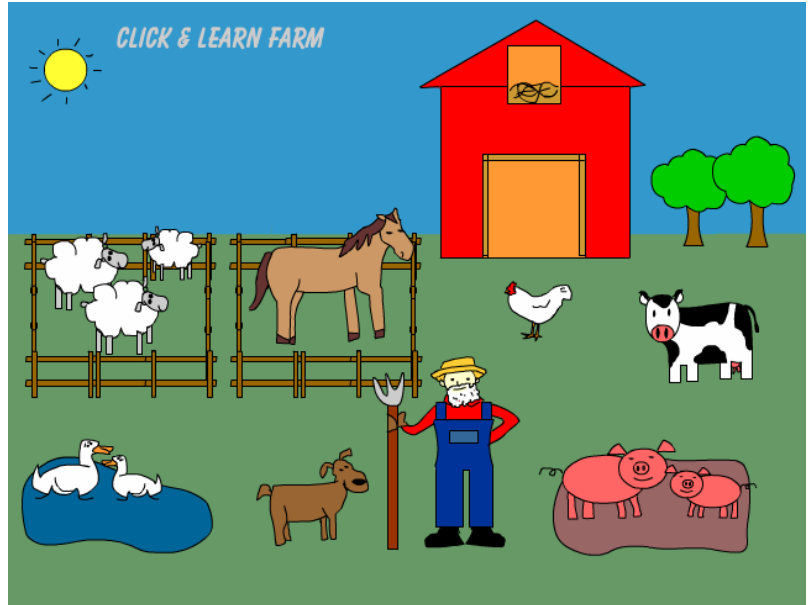
MAKE A SIMPLE INTERACTIVE ENVIRONMENT WITH BUTTONS

In this tutorial, you will learn how to make a simple interactive environment through the use of buttons.

An example of this style of game is the 'Click & Learn Farm' environment shown here. This environment is designed for early childhood students to help them learn about farm animals.

Each animal and object in this environment is a button that has different states.

When the user rolls the mouse over an object or animal, the name of the object will appear. When the user clicks on an animal, they will hear the sound that animal makes. This environment can be viewed in the Interactive Environments section of the Flash Classroom Gallery.



Before we commence this tutorial, it is important to note that there are many ways to create interactive environments in Flash. This tutorial is designed for beginners to Flash and does not require the use of actionscript. Tutorials covering more advanced techniques to achieve greater interactivity are also available on the Flash Classroom site.

PLANNING YOUR ENVIRONMENT

Before we start working in Flash, it is a good idea to come up with a context for your environment and to engage in a small amount of planning.

You should take some time now to:

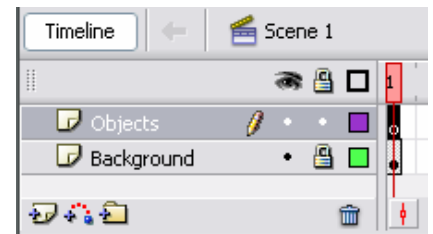
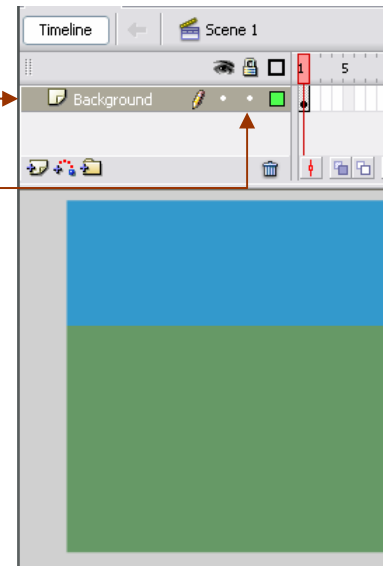
1. Decide on the context for your environment. This could be a farm like in the example or something related to what you are learning about at school. The thing to remember is that your environment must be able to have a background and several objects or parts that can be made interactive.
2. Make a list or a storyboard that contains the contents of the background and the objects / parts that you are going to make interactive.





GETTING STARTED

1. Open a new file in Flash by selecting **File > New**.
2. In the timeline, you will see a layer that is named **Layer 1**. Double click on the name of this layer and type in **background**.
3. On this layer, **draw** the background for your interactive environment.
4. Once you are happy with the character, **lock** the character layer by clicking on the white dot that is underneath the lock symbol on the character layer.
5. Add a layer by selecting the **Add New Layer** button that is located at the bottom left hand corner of the timeline.
6. Double click on the text **Layer 2** and rename it **objects**. Your timeline should look like the one shown here on the right.

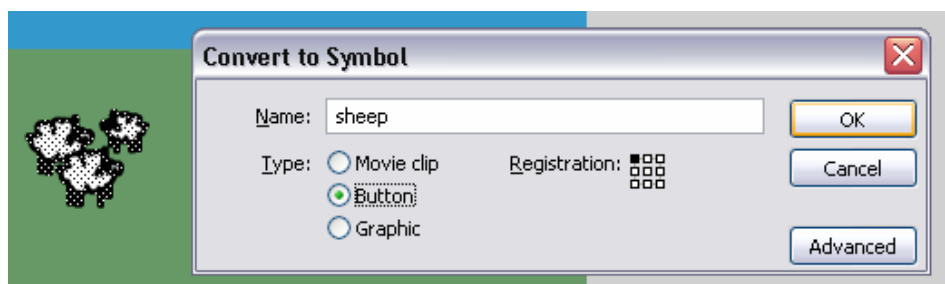


CREATING THE OBJECTS

The objects layer will contain all of the items or objects that you plan to make interactive. In my 'Click & Learn Farm' the objects included the trees, sun, barn, farmer and animals. I drew all of these objects in Flash, however there is no reason why you can't import images that you have found or have created in another application.

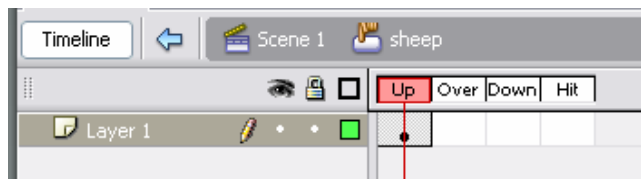
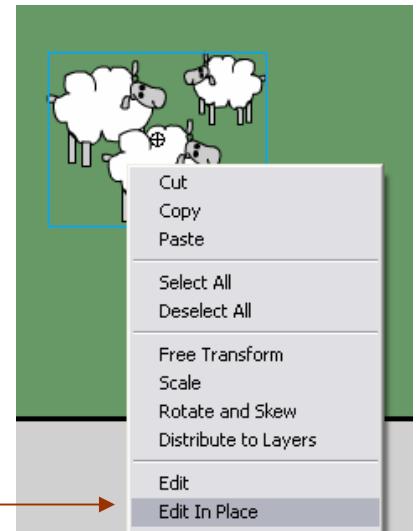
I am now going to walk you through the process of making an object interactive.

7. Click on the first keyframe on the **objects layer**. Using the draw tools provided, draw your first object. (Alternatively, import your image by selecting **File > Import > Import to Stage**). My object is a group of three sheep.
8. Select your object and press **F8** to convert your object to a symbol. Type in the **name** of your object and ensure you select the **button** behaviour option. Click **OK**.



Your object is now officially a button. However, if you were to test your button, you would find that nothing changes when you roll over it. We are now going to edit the button so that it does change.

9. Click on the object you just converted to a button and click your right mouse button to open up the context menu. Select **Edit in Place** from the menu.
10. You are now editing the button symbol. You will see that the timeline for this button symbol only has four frames—one for each of the button states.

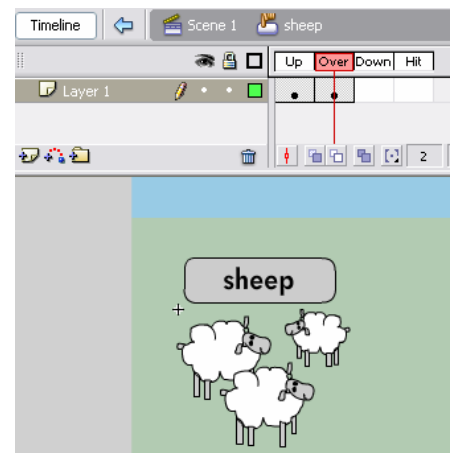


The states are **UP** - when the mouse isn't over the button
OVER - when your mouse is over the button
DOWN - when you click your mouse on the button
HIT - the active area that is the button—the region the user can hit or roll over.

At present your button only contains a keyframe in the **Up** state frame. To make your button work and interact with the user, you will need to add at least one additional keyframe to the Over or Down states.

11. Add a keyframe to the **Over** state by selecting the frame under the word **Over** and selecting **Insert > Timeline > Keyframe** from the menu.
12. Click on this new keyframe to ensure that it is the frame you are editing. Change your object to include the name or whatever you wanted to add or remove to make your object interactive.

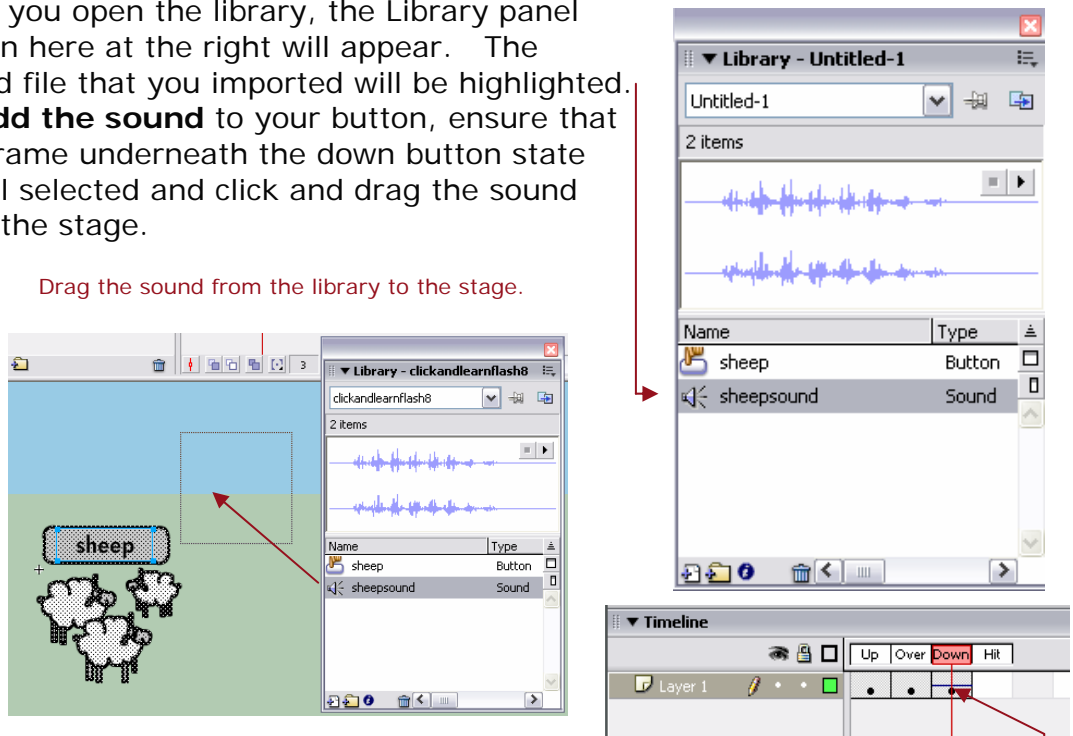
In my example shown here, I have simply added a rounded rectangle and a text box containing the text 'sheep'.



13. Add a keyframe to the **Down** state by selecting the frame under the word **Down** and selecting **Insert > Timeline > Keyframe** from the menu.
14. Click on this new keyframe to ensure it is the frame you are editing. Change the object as required. In my example, this does not contain a visual change. I have instead added a sound file that I have recorded and edited. The next step will show you how to import a sound into your frame.

15. To add a sound to the **Down** state keyframe, you will need to select **File > Import > Import to Library** and then locate the sound you want from its location on your computer or network.
16. The sound you have imported in the previous step has not been applied to the button yet. Instead, it has been imported into the library within Flash. To open this library select **Window > Library** or press **F11**.
17. When you open the library, the Library panel shown here at the right will appear. The sound file that you imported will be highlighted. To **add the sound** to your button, ensure that the frame underneath the down button state is still selected and click and drag the sound onto the stage.

Drag the sound from the library to the stage.



18. You will be able to tell that the sound has been added to the frame because a blue horizontal line will appear across the frame. This is a graphical representation of the sound wave.

Your button has now all of the features you need. Select the **Scene 1** link above the timeline to return to the main stage.



19. Your first interactive object is now ready for testing. Select **Control > Test Movie** from the menu to make sure it works.

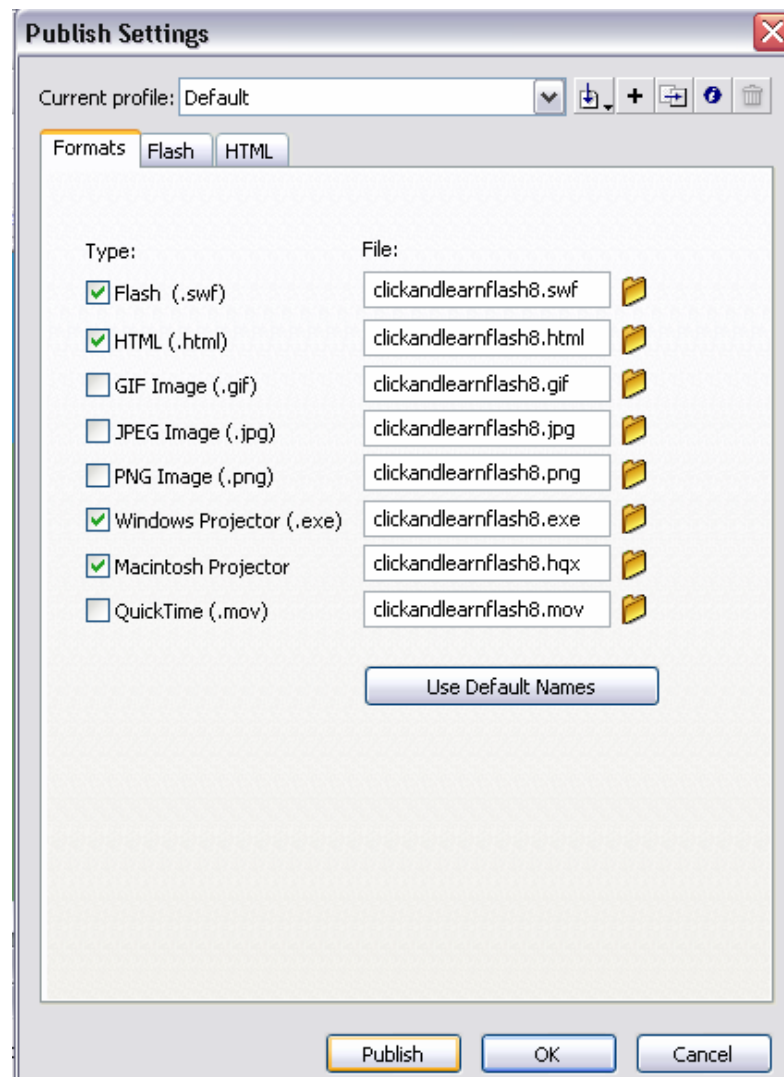
If your button works as expected—congratulations! You have just learnt how to make your own interactive objects for your environment. **Repeat** the process to make all of the other objects. Once you have created them all and tested that your environment works, move on to the next page to learn how to publish your file.

If your button isn't working as expected, work back through the steps to make sure you've got it right.



PUBLISH & SHARE YOUR GAME

20. Save your work by selecting **File > Save**.
21. Turn your flash file into a game that can be played on any computer by publishing it in different file formats. To do this select **File > Publish Settings**. The box shown below will appear.



22. Tick the file formats you want and click on the **Publish** button. These files will be saved in the same location you saved your original file. If you want your game to be a standalone file that can be played on Windows or Macintosh machines—ensure you check the Windows Projector (.exe) and Macintosh Projector (.exe) format options.

If you've got to here successfully, Well Done! If not, send me your file via email and I'll see where you went wrong.

