How to write games, animations and stories using SCRATCH for primary schools

Lesson Plan 3
Battle of the Bands

Mathematical Skills / Concepts
Scratch Features
Curricular Links
Problem Solving, Sequencing, Time
Importing and Using Sounds
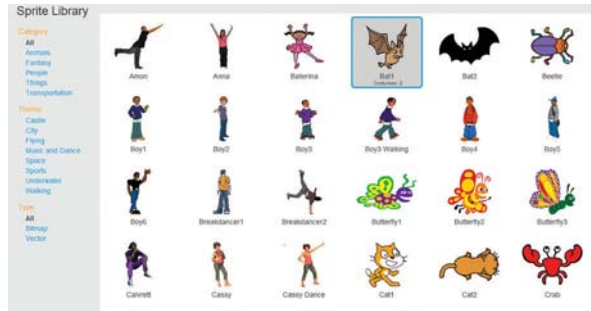**Mathematics, Music**

Learning Objectives

The child will:

- Alternate between different sprite costumes, incorporating time and motion.
- Import and record sounds to use in their Scratch projects.

Introduction

Ask children to choose a sprite from the library. Instruct the children that the sprite must have more than one costume* e.g. the cat, parrot or bat.


When you click on a sprite in the sprite library you can see underneath how many costumes that sprite has e.g. The selected bat has 2 costumes.

Costumes

Once you have selected a sprite, for example the bat sprite, click on the Costumes tab, next to the Scripts tab, and all costumes for that sprite should be visible.

Click back into the Scripts tab to create a program which enables the bat to flap his wings.

- Click on Looks.
- Drag out "switch to costume bat 1a".
- Duplicate this block by right clicking on it and selecting duplicate.
- Use the small drop down arrow to select costume "bat 1b".
- If we try to use this script it appears as though nothing is happening. This is because the costume change is happening too quickly to see. We must add a wait block.
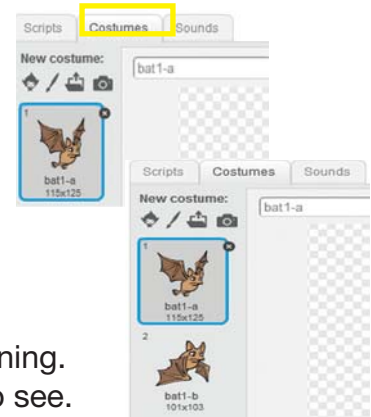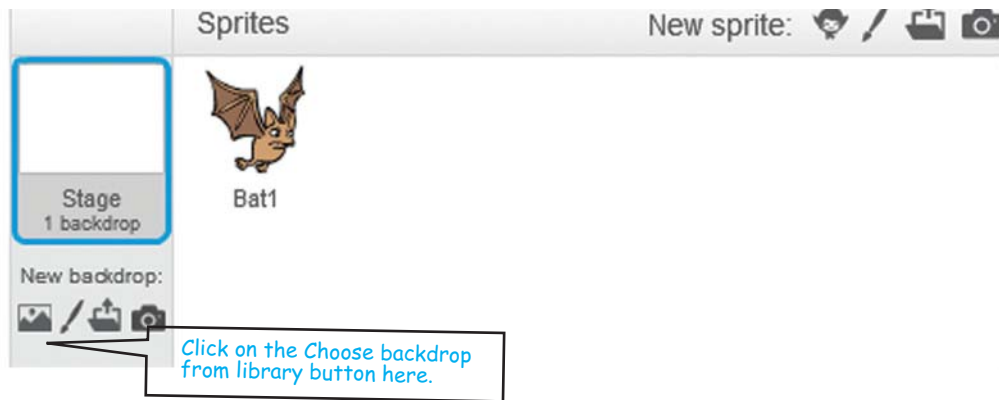

- Add a forever block to see continuous action.

- If you click on the stage in the sprites area you can choose a new backdrop from the library.

Click on the Choose backdrop from library button here.

Challenge Time 1!

1. Select a sprite from file. This sprite must have at least two costumes.
2. Choose a suitable backdrop.
3. Use Looks to change costumes. Add a wait block and a repeat block.
4. Use Motion to make your sprite move around the screen as it changes costume.
5. Change the wait time and see what happens.

Music

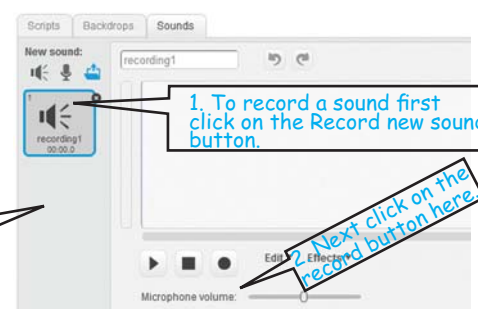Give children some time to experiment with the Sound blocks.

Drum Beat

- Drag out the "play drum 1 for 0.25 seconds" block.
- Use the drop down arrow to select different percussion instruments.
- Duplicate this block and change the percussion instrument to create a rhythm.

Sound Files

- Click on the Sounds tab. Click on the Choose sounds from library button and select some sounds. These sounds will appear as a list under the Sounds tab.
- You may also import sounds which have been downloaded from a website such as www.pacdv.com/sounds and saved to a location on your computer.
- Click on the Scripts tab.
- Use the "play sound block" to incorporate the sounds you have chosen.
- In the Sounds tab you can also record your own sounds. Most laptops have an inbuilt microphone. If this is not present you must attach an external microphone to record.
- Sounds may also be added to the stage.

1. To record a sound first click on the Record new sound button.

2. Next click on the record button here.

3. Once you click the stop button your sound will appear in the sounds list.

Challenge Time 2!

1. Select or draw 2 sprites. Be as creative as you can.
2. Choose a suitable backdrop.
3. Record or import sounds to add to your sprite.
4. Add a drumbeat to the backdrop.

Ultimate Challenge!

1. Select a concert backdrop.
2. Select some sprites to be musicians, dancers or singers.
3. Write a script for some of the sprites that enables them to change costumes as if dancing.
4. Add music to your sprites.
5. Have a battle of the bands with your classmates! Tell them what you like and suggest ideas to make their project even better!

Notes

* A costume is one of possibly many 'frames' of a sprite. Sprites can change their look to any of its costumes. They can be named, edited or deleted, but every sprite must have at least one costume.