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BAT CATCHER



The aim of this exercise is to create a game where you have to reach a certain score before a certain amount of time runs out.

You will learn to:

- Make your sprites move.
- Use variables to keep track of the time and the score.
- Perform actions if your sprites come into contact with each other.

1. Select the **'Stage'** icon and click on the **'Backgrounds'** tab. Click on **'Import'** and select the **'woods'** background from the **Nature** folder.

2. Select your sprites. I have selected **'ghoul1-a'** from the **Fantasy** folder, and **'bat1-a'** and **'bat2-a'** from the **Animals** folder.

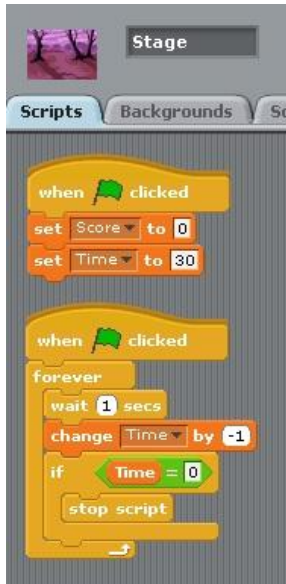
3. For each sprite, select the **'Costumes'** tab, and import the second costume that each sprite has. For example, **'ghoul1-a'** has a second costume called **'ghoul1-b'**.

4. Select the **'Variables'** section and create two new variables called **'Time'** and **'Score'**. **'Time'** will keep track of the time, and **'Score'** will keep track of your score. Make sure to select **'for all sprites'** when you create your variables. This means your variables can be used by all your sprites and your stage, not just one sprite.

5. Select the **'Stage'** icon and click on **Scripts**.

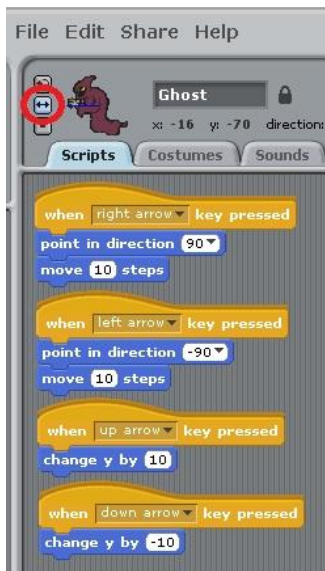
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6. Add the following code into the Scripts pane for your Stage. This code sets the 'Score' variable to 0, and the 'Time' variable to whatever time you want the game to last for. The 'Time' variable will then count down from this number until it reaches 0. If it reaches 0, the game will be over! I have set the time to start at 30 in this example.



7. Now, add the following code for the ghoulish sprite. These blocks will control the movement of the ghoulish. Make sure to select the '**Only face left-to-right**' icon just above the **Scripts** tab. It is the icon circled in red in the image below. This will make sure the ghoulish stays upright all the time, and not turn upside down!

Note: Select the '**Only face left-to-right**' icon for your bat sprites also!



8. Now, add the following script to the ghoulish as well. This code will make the ghoulish change appearance if he catches a bat, using the '**switch to costume**' block. This is why we imported the ghoulish's second costume earlier! There are two ways to program the ghoulish when he comes into

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contact with a bat. Both ways are shown in the diagram below, marked '1' and '2'. You can choose which way you want to do it!

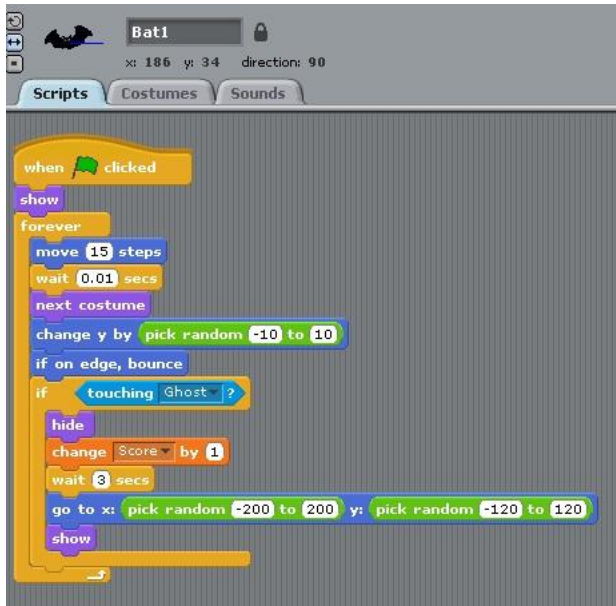
- 1. You can use multiple 'if' blocks from the **Control** section. These will refer to each bat sprite.
- 2. You can use an 'or' block from the **Operators** section, and use that block to refer to bat1 **OR** bat2 **OR** bat3 **OR** bat4, all in the one block.



9. Now we add the script for the bat sprites. This code will make the bats look like they are flying by using the 'change y by' block, and the 'switch to next costume' block. There is also code that will give instructions to the bats if they come into contact with the ghoul. These instructions will tell the bat to hide for 3 seconds and reappear at a random location on the screen. The 'move 15 steps' block determines how fast the bats move. You can set this as fast or as slow as you like!

Note: To save time, just add the following script to **ONE** of the bat sprites. Once you have done that, you can right-click on the code, and select 'duplicate'. You will see that you are able to drag the code over to the other bat sprites. Left-click on one of the other bat sprites, and the code will be copied into that sprite's script! Repeat this process for each extra bat sprite you have in your game.

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Duplicating code for your other sprites:



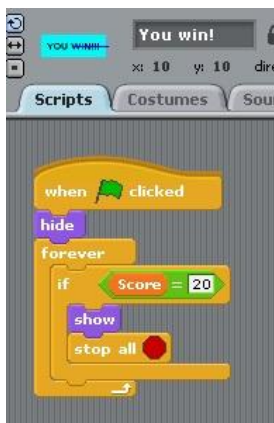
10. We're nearly finished! Now all we have to do is create two new sprites that will appear on the screen if the player wins the game, or if the player loses the game. Select **'Paint new sprite'**. Using the **'Text'** option (the **'T'** icon), write a message that tells the player he or she has won the game. My message says "You win!!!"

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11. Repeat this process for the second new sprite, but this time write a message that tells the player if he or she has lost the game. My message says “Game over!!!”

12. Now add the following code for the “You win!” sprite. This code tells the sprite to appear if the player reaches a certain score. You can set this score to whatever number you like. Remember, the player gets 1 point for every bat he or she catches!



13. Now add the following script to the “You lose!” sprite. This code will tell the sprite to appear if the time runs out!



WELL DONE!!! You’ve finished making the game! Now see if you can add more things to the game to make it more interesting and more difficult! Have fun!!