

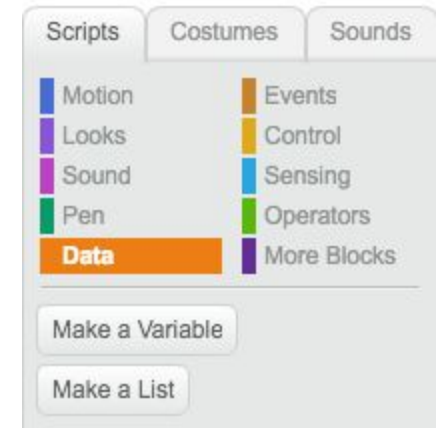
*One of the coolest features of any video game is the ability to compare your current score to the highest score in the game, but how is it done.*

*We can do this by using two of Scratch's powerful features: lists and looping. We are going to loop through a list of high scores, comparing each one against every other score in the list, to determine the highest. Here's what it you need to do:*



## GETTING STARTED

1. Right-click to delete the cat Sprite.
2. Select the Data button. Make a variable named 'n' and a variable named 'highScore'. Make a list named 'scores'. Click on the little '+' sign in the scores table to add a bunch of made-up scores.
3. Select the 'More Blocks' button. Make a block and name it 'FindHighScore'. Drag in the blocks as you will see on the next page. Finally drag in the 'FindHighScore' block into your scripts area. When you click on it, It will correctly display the Highest of your made-up scores.
4. Integrate this into an existing game. You can drag the 'FindHighScore' definition block into your scratch backpack. In the game, you'll have to re-create the 'n' and 'highScore' variables and the 'scores' list. Create a new variable named Current High Score. Set up your game so that at the end of the game, it adds the players score to the 'scores' list. Pull in your 'FindHighScore' block from 'More Blocks' and set the 'Current High Score' variable to 'highScore'!



# PUTTING IT TOGETHER

We start out by telling Scratch that the first score in the list is the highest - that might not be true but we have to start somewhere!

'n' will represent the place of the number in the list. Some people have had trouble finding the 'set n to ...' block. Once the variables are created a 'set' block is available in 'data', but you may have to change it to your desired variable by clicking the tiny down-facing triangle and

The Repeat block is the loop. It will repeat the instructions inside as many times as we tell it. So if there are 10 scores in the list. It will start on the 2nd score and repeat 9 times. Each time we repeat, if the number is higher than our high score guess, we save the new number as the high score. When we have finished comparing, we can be sure that our final guess is correct.

Because you have defined it, the 'FindHighScore' block is available to drag in from the purple 'More Blocks' button.

When you're finished click the flag and watch the fun!

