

Intro to Programming Scratch #8 - Dice

Objective: Demonstrate your understanding of how to use Scratch to create random numbers. Further your understanding of changing costumes and using variables.

1. Download *first_last_scratch_8.sb3* file from the www.missblomeyer.com website and save it on your flash drive (if you are using a MacBook) or your downloads folder if you are using a Chromebook.
2. Rename the Scratch file to be your first name and your last name. (*first_last_scratch_8.sb3*)
3. Now, login to the Scratch website. Create a new project. Do *File>Load from your computer*. Find your *first_last_scratch_8.sb3* file and click *Open*. When asked if you want to replace the contents of the current project, click *OK*.
4. You are to finish *dice* so that it contains a **pair** of dice and a button. You may change the look of the dice if you wish.
 - a. You need to add the additional costumes for the *Die1* Sprite. The costumes must look as close to what a real die looks like as possible. These costumes must match the costumes that already exist. Make these costumes using the Scratch editor.
 - b. You need to add a Sprite for the second die. Name this Sprite *Die2*.
 - c. You need to add a variable for the second die. Call it *die2*.
 - d. You need to add a third variable. Call it *total*.
 - e. Now add a 3rd Sprite that looks like a clickable button. The text on the button should be *Roll the Dice*.
 - f. When the **button** is clicked, it should do the following:
 - i. set the *die1* variable to a random number from 1 to 6
 - ii. set the *die2* variable to a random number from 1 to 6
 - iii. broadcast *roll*
 - iv. set the value of *total* to the sum of *die1* and *die2*.
 - g. When *Die1* and *Die2* receive *roll*, each Sprite should change its costume to match the value of its associated variable.
5. Always do *File->Save now* before you log out of the Scratch website.
6. Now do *File->Save to your computer*. If you are using a MacBook make sure to save to your flash drive. If you are on a Chromebook, it should download automatically to the downloads folder.
7. Turn in your *first_last_scratch_8.sb3* file to *missblomeyer.com* in the usual way.

