# Scratch 3 Overview

Introduction to Computer Science: Coding was developed with Scratch 2, which was the current version at the time of publication. Scratch 3 has since been released. The functionality between the two versions is very similar. However, the location of commands and the layout of the Scratch window are slightly different from what is shown in the textbook. All of the activities in the textbook will work in the new version of Scratch. You just need to know how to access the commands and features. This exercise will allow you to become familiar with the new interface.

Hands-On Example

Scratch 3 Interface

A "blank" project in Scratch contains one sprite (the cat) and several blocks. The blocks are pieces of code that can be assembled to program a functioning script. As you work through this example, take notes about the locations of commands and features so you can refer to them as you work through the activities in the textbook.

1. Launch Scratch. If a **Tutorial** window appears, close it by clicking the X.

2. Examine the screen. There are four main areas of the screen, or user interface. These are identified as shown.
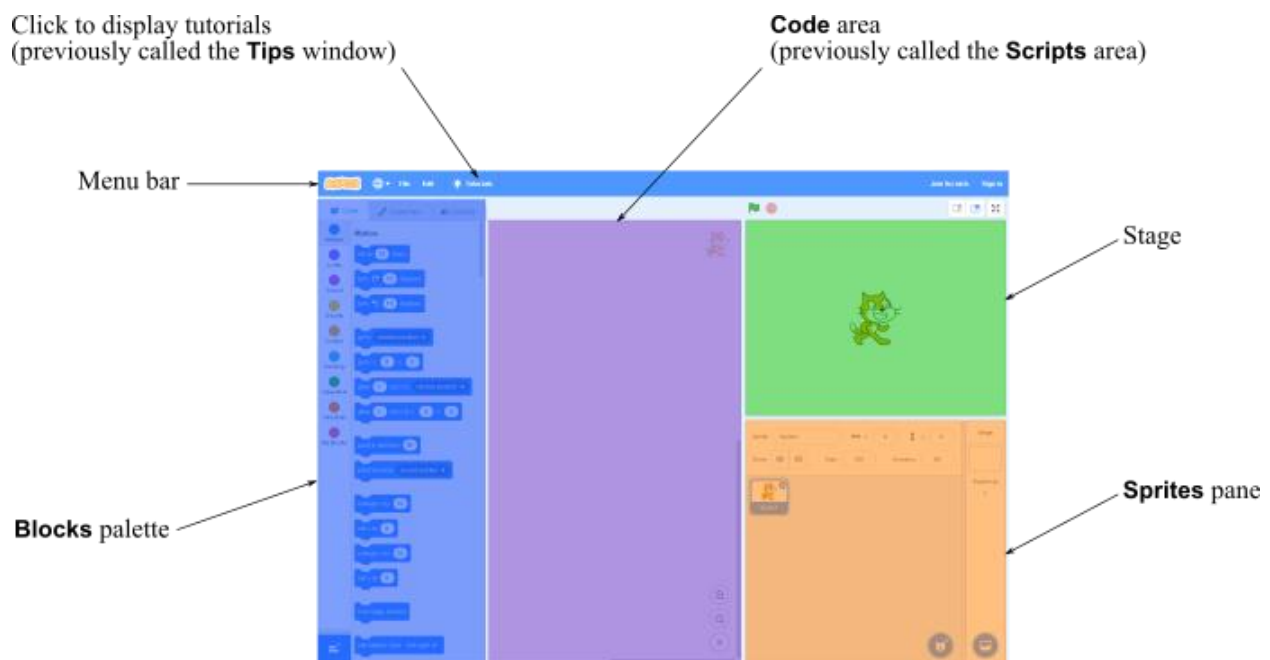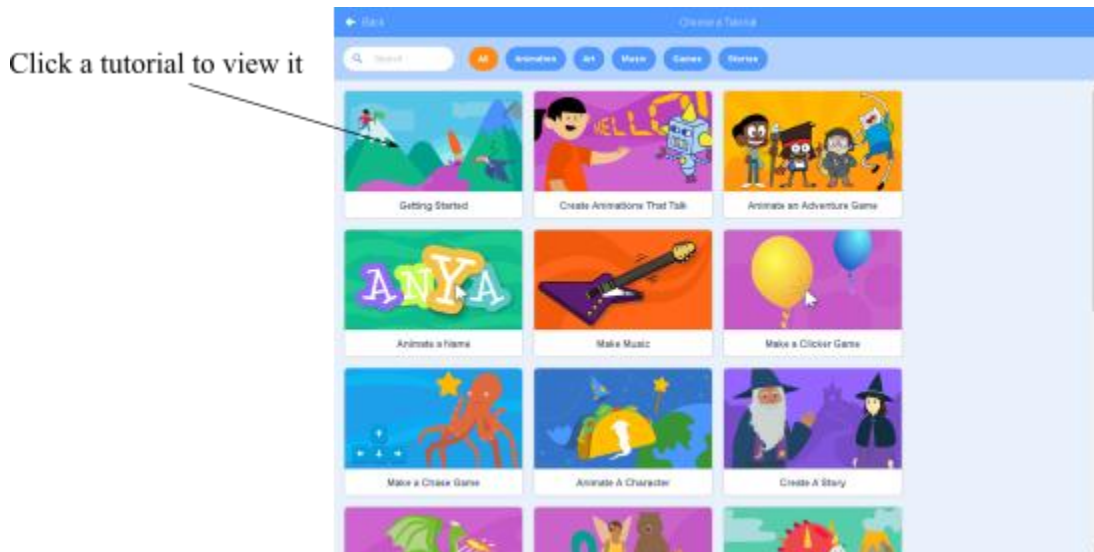

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3. Click the **Code** tab at the top of the user interface to display the **Blocks** palette. In previous versions of Scratch, the **Code** tab was called the **Scripts** tab. In the textbook, when the **Scripts** tab is referenced, it means the **Code** tab.

4. Look along the left-hand side of the **Blocks** palette. There are nine categories of blocks. Each is color-coded to the blocks that appear in the palette. The **Motion** category is displayed when you first click the **Code** tab. Notice this category is blue and the blocks are blue as well.

5. Locate the move 10 steps block, and click the blue part of the block while watching the stage. The sprite moves ten steps in the positive X direction. A step in Scratch is one pixel. The direction of the steps is determined by the rotation of the sprite. In this case, the rotation is zero by default, which matches the direction the image on the sprite is facing.

6. Click the number 10 in the block. The number is highlighted for editing.

7. Enter 40 in place of the value 10.

8. Click on the blue part of the block to preview the effect. The sprite moves 40 steps in the positive X direction. Notice that the cat's feet do not move. The cat is just a static image attached to the sprite. For the feet to move, the image would need to be animated, and then code would need to be written to display the animation.

9. Applying what you have learned, change the number of steps to –50, and click the block again. The sprite moves to its original position. This is because you first moved it +10 steps followed by +40 steps and then –50 steps all along the X axis.

10. Click the **Costumes** tab at the top of the user interface. The **Costumes** tab displays a drawing area that contains the current sprite image. You could alter the sprite using the drawing tools on the tab.

11. Click the **Sounds** tab at the top of the user interface. The **Sounds** tab contains any sounds that have been loaded into the Scratch project and assigned to the current sprite.

12. Locate the **Sprites** pane in the lower-right part of the user interface. This pane shows which sprites have been loaded into the Scratch project. Currently, the only sprite listed is the cat, which is named Sprite1.

13. Click the **Choose a sprite** button in the lower-right corner of the **Sprites** pane to display a menu, as shown. Then, click **Choose a sprite** in the menu. The sprite library is displayed. Note: some of the sprites called out in the textbook are no longer available. If you encounter this situation in a future lesson, simply select a different sprite from the library.

Click to open the sprite library

Click

14. Scroll through the library to find a sprite you like. Then, click the sprite. It is automatically added to the stage and appears in the **Sprites** pane. You now have two sprites in the project.

15. In the **Sprites** pane, click the first sprite (Sprite1) to select it. When a sprite is selected in the pane, it is highlighted in blue. Then, click the X in the upper-right corner of the sprite thumbnail. The sprite is removed from the project along with any code and sounds that have been attached to it.

16. Click the **Tutorials** button at the top of the Scratch window. The tutorials screen is displayed, as shown. This screen replaces the **Tips** window in previous versions of Scratch.

Click a tutorial to view it

17. Locate the Getting Started tutorial, and click it. The Scratch interface is redisplayed, and a small player for the tutorial appears in the middle of the screen.

18. Click the **Play** button in the tutorial player. Watch the short video that introduces Scratch.

19. When the video is complete, click the X to close the player.

20. Close Scratch without saving the project.