

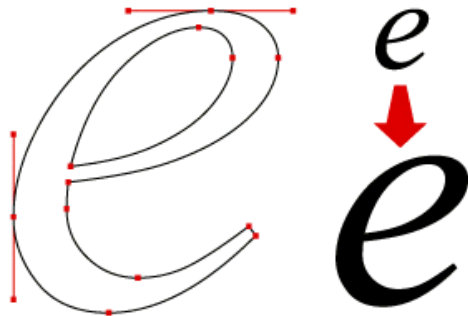
Adobe Illustrator Crash Course

Super-Basics: Navigation & Terminology

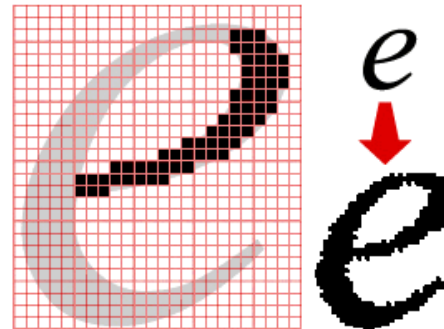
What is Adobe Illustrator?

- ▶ A powerful editing software that specializes in **vector graphics**
 - ▶ **Vector image**: an image format based on vectors, which go through locations called nodes (or control points) to create clean, resizable images
 - ▶ **Raster image**: an image format based on pixels stored in a rectangular image matrix, typically used for photo storage
- ▶ Although both formats have their strengths and weaknesses, vector graphics are superior when sending commands to machines such as the laser cutter or plasma cutter

VECTOR GRAPHICS



BITMAPMED (RASTER) GRAPHICS



What are we learning?

- ▶ Adobe Illustrator is actually a very versatile program with a wide variety of functions and applications
- ▶ However, we'll only consider uses that are frequently needed in the OEDK:
 - ▶ **Basic Illustrations:** combining simple shapes to create proof-of-concept
 - ▶ **2D CAD** (computer-aided design): creating files that can be used with the lasercutter or plasma cutter
- ▶ You can read about some of the other applications here
 - ▶ <https://helpx.adobe.com/illustrator/how-to/what-is-illustrator.html>

Starting Tips

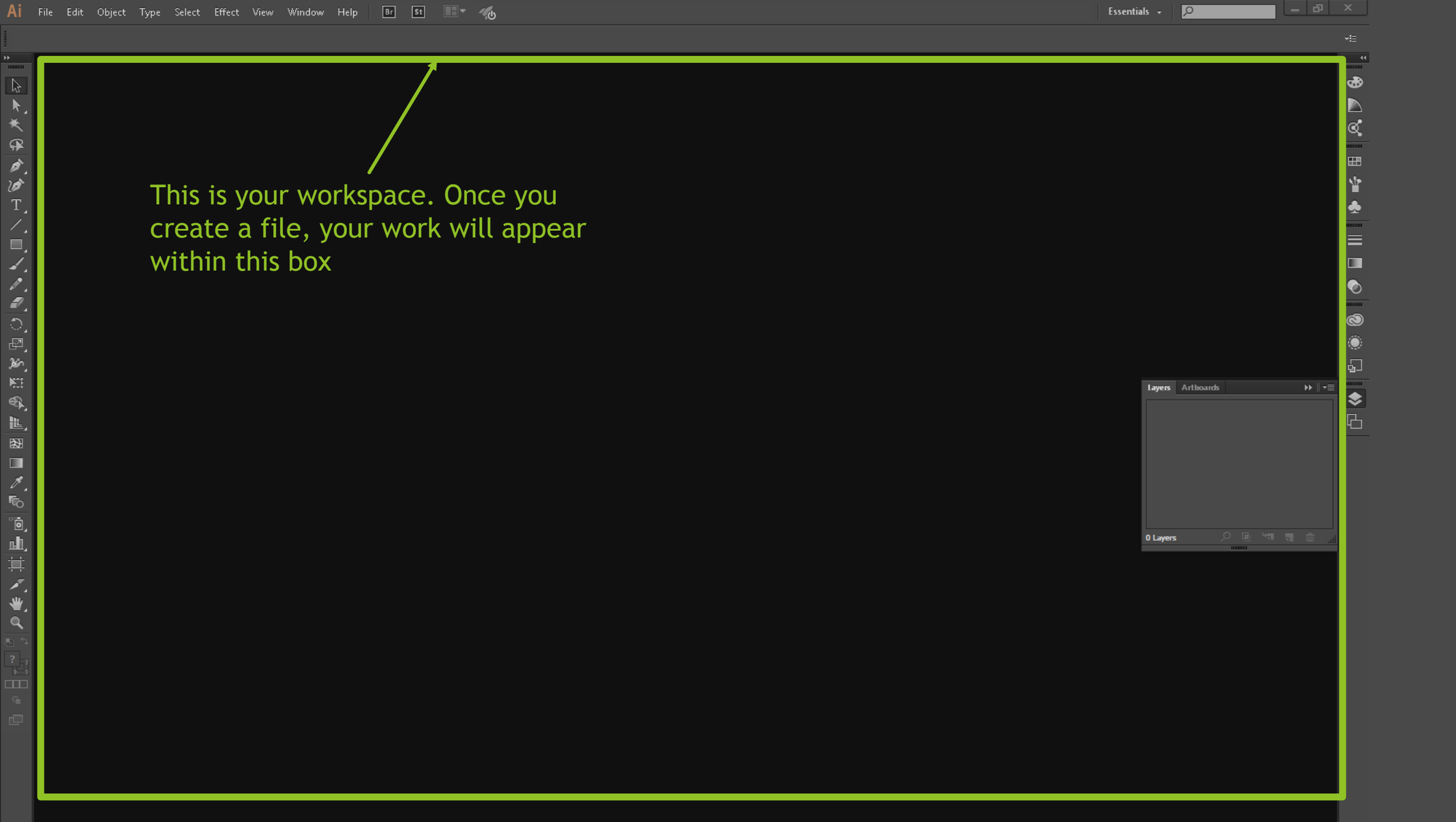
- ▶ **Hotkeys**: using hotkeys is weird at first, but can make your overall CAD workflow much faster
 - ▶ Also, your ability to CAD quickly is a great conversation starter for dinner parties*
 - ▶ *probably not
- ▶ CAD with **both hands**: use the right hand on the mouse (selecting objects) and the left hand on the keyboard (using hotkeys)
- ▶ Save often.

The Super-Basics

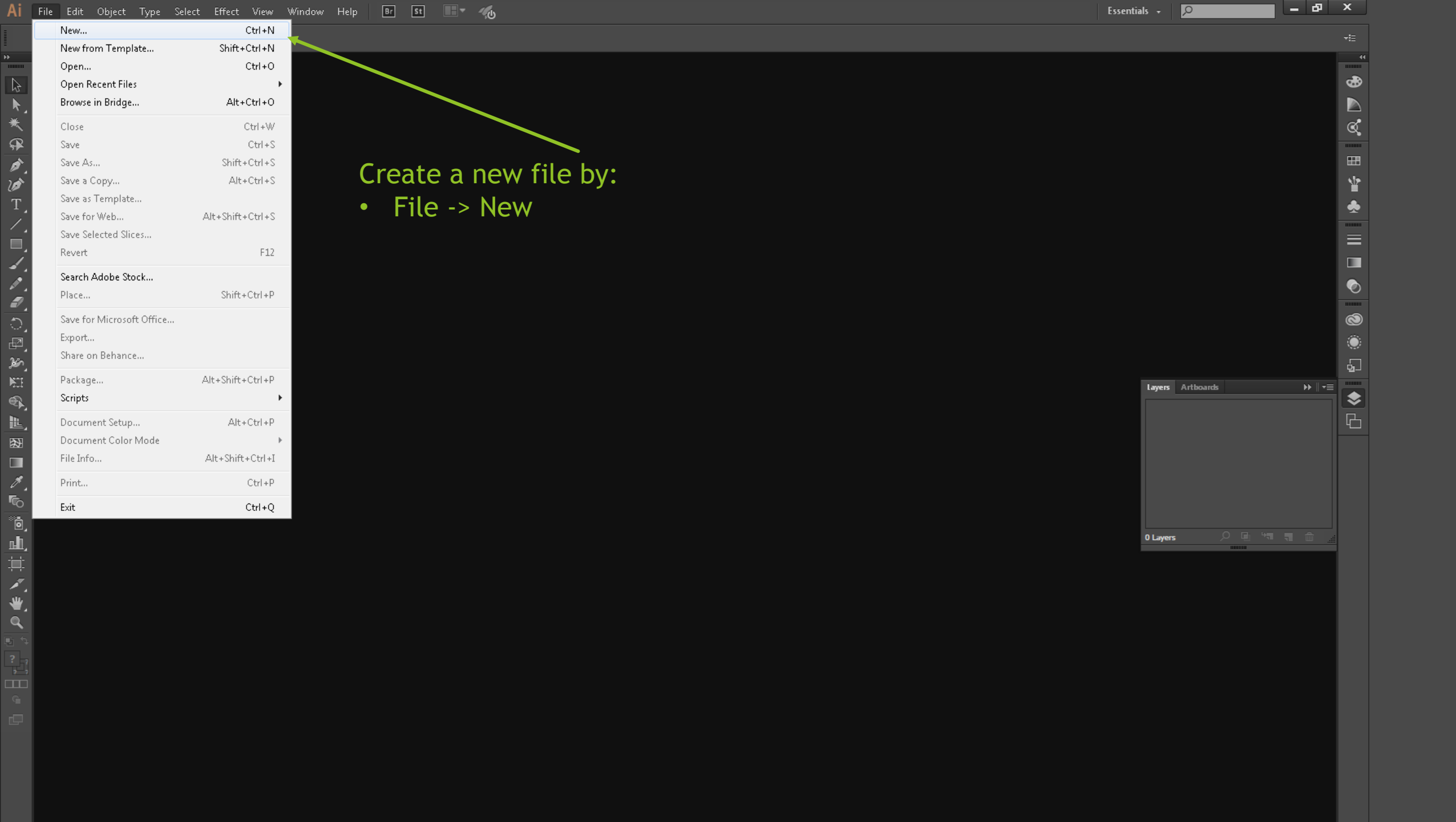
- ▶ Creating a file
- ▶ Adjusting units
- ▶ Artboards
- ▶ Navigating a file
- ▶ Layers

Getting Started



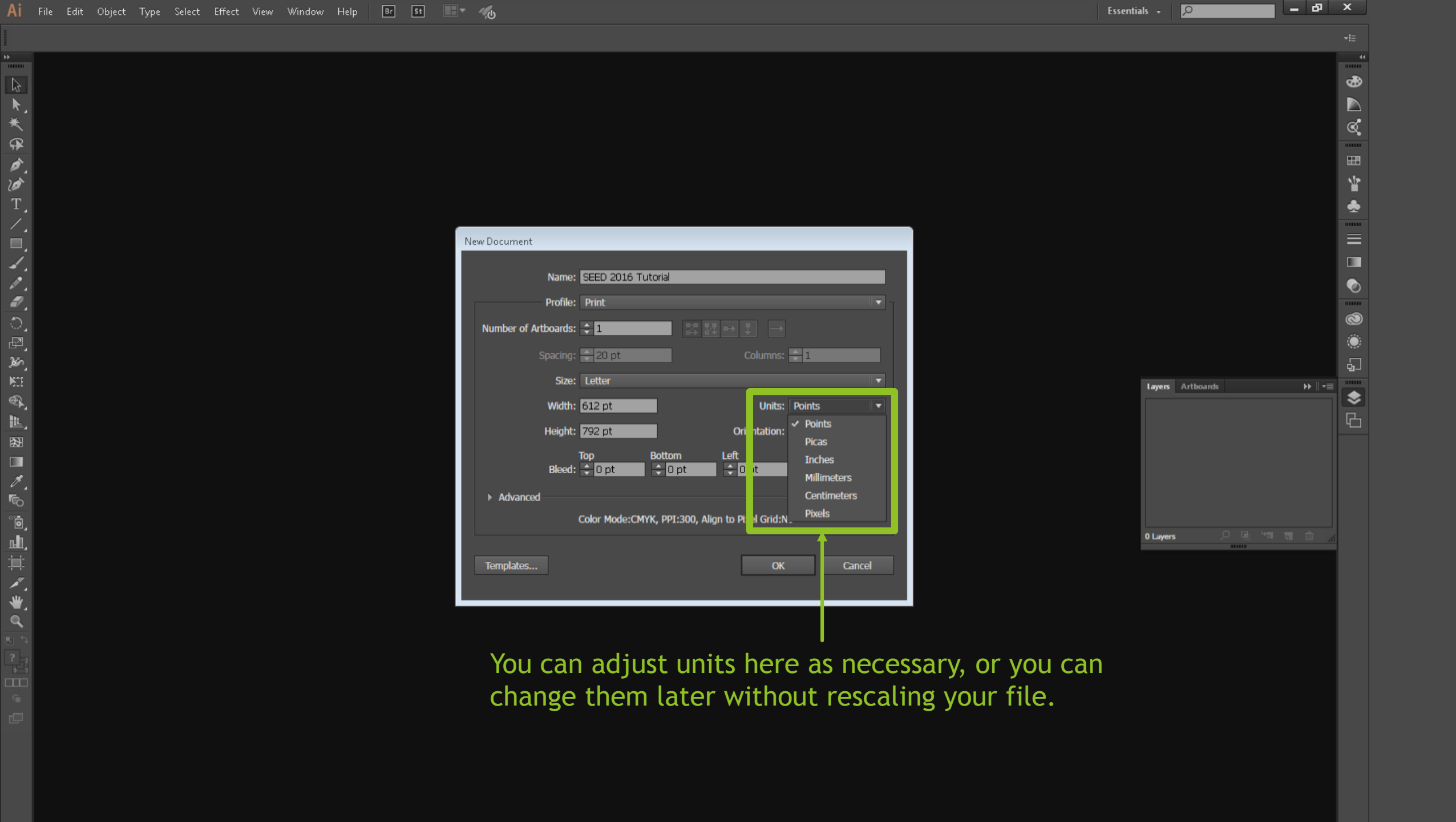


This is your workspace. Once you create a file, your work will appear within this box



Create a new file by:

- File -> New



You can adjust units here as necessary, or you can change them later without rescaling your file.

If you're doing graphics work, you can mess with the color and render settings here. For our uses here, we can leave them on their defaults.

New Document

Name: SEED 2016 Tutorial

Profile: [Custom]

Number of Artboards: 1

Spacing: 0.28 in



Columns: 1

Size: Letter

Width: 8.5 in

Units: Inches

Height: 11 in

Orientation:  

Top: 0 in

Bottom: 0 in

Left: 0 in

Right: 0 in

Advanced

Color Mode: CMYK

Raster Effects: High (300 ppi)

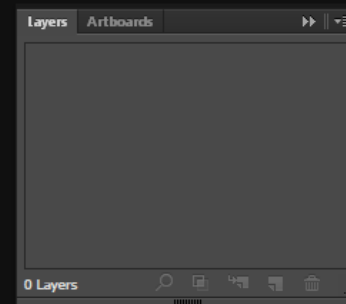
Preview Mode: Default

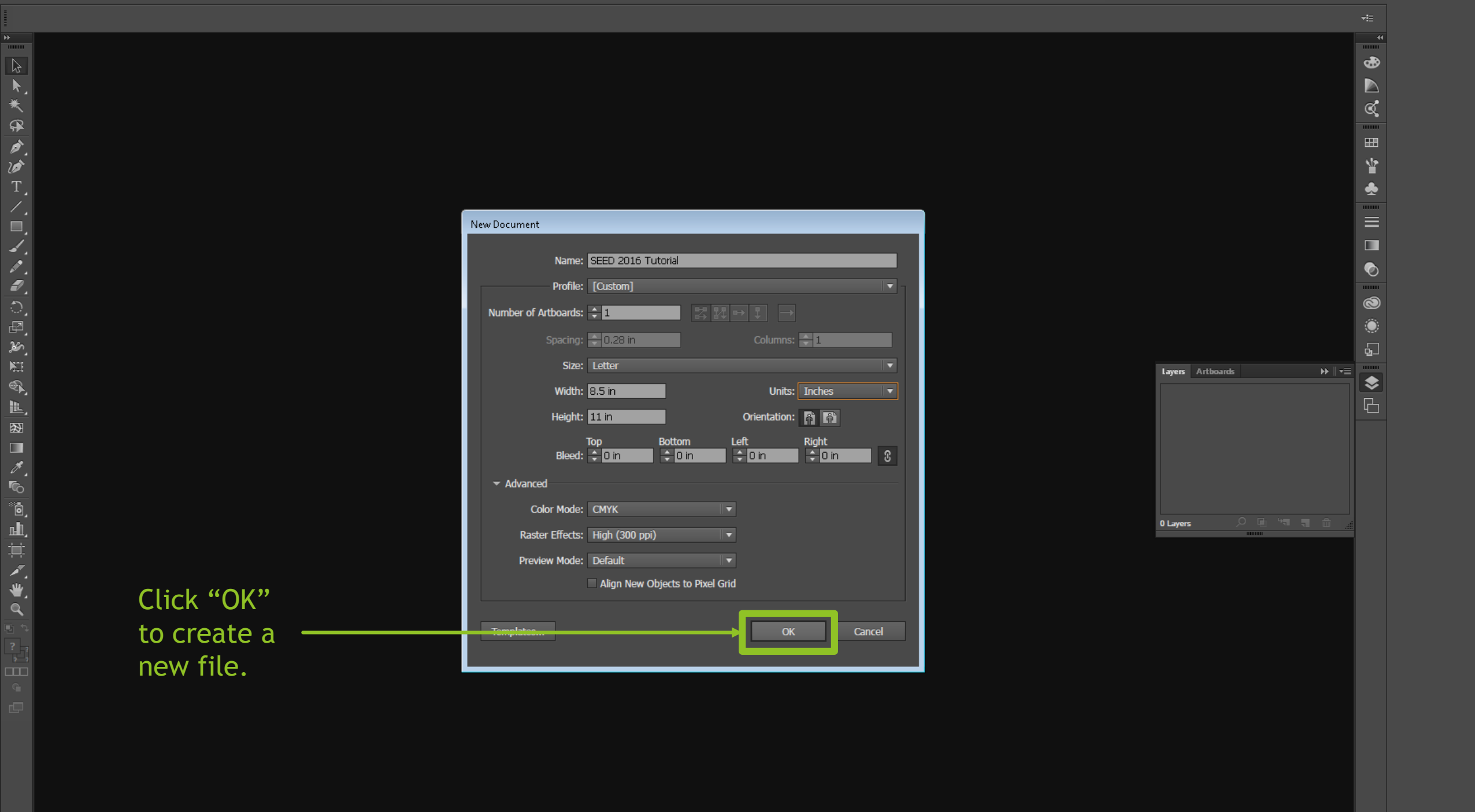
☐ Align New Objects to Pixel Grid

Templates...

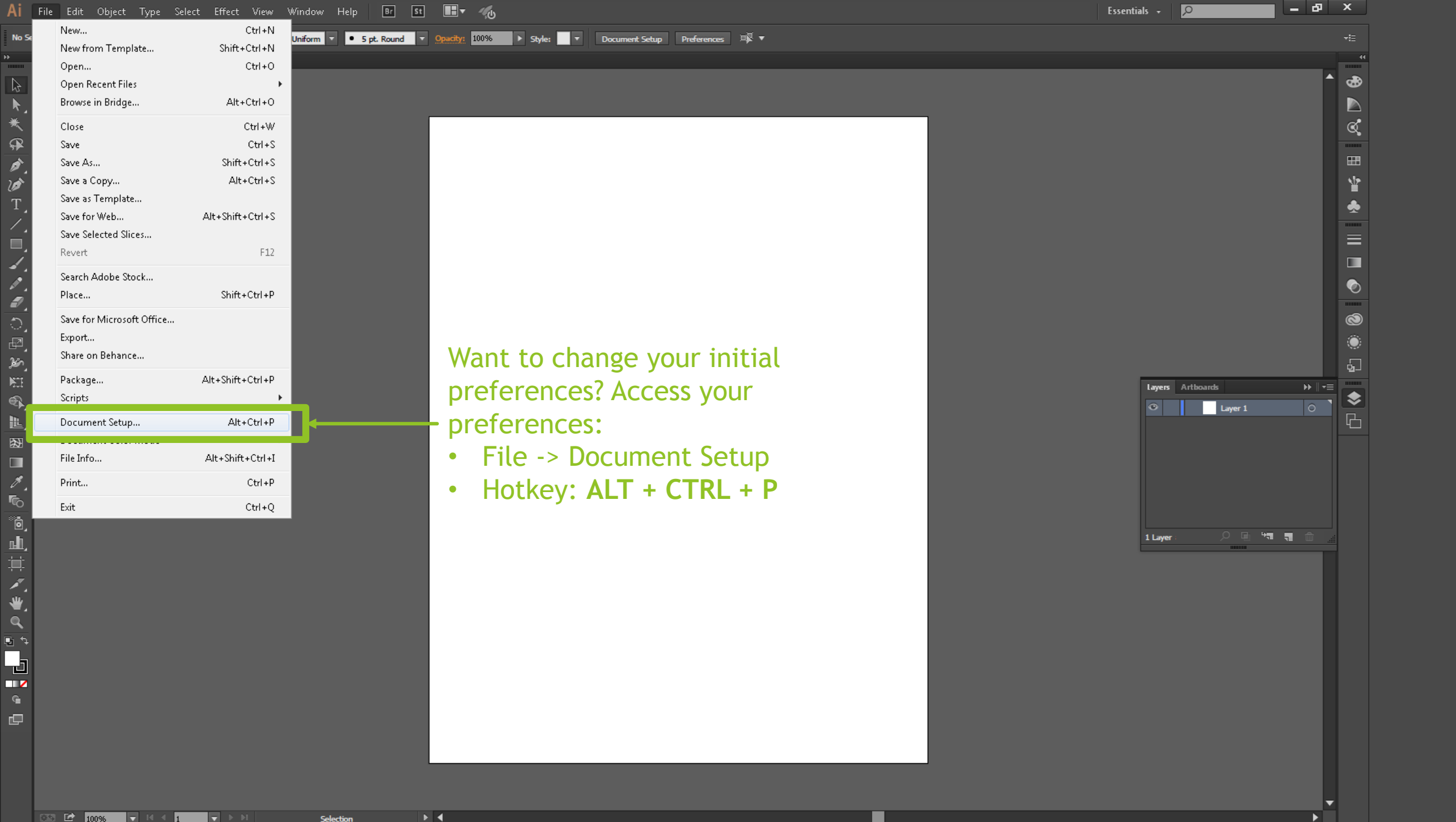
OK

Cancel



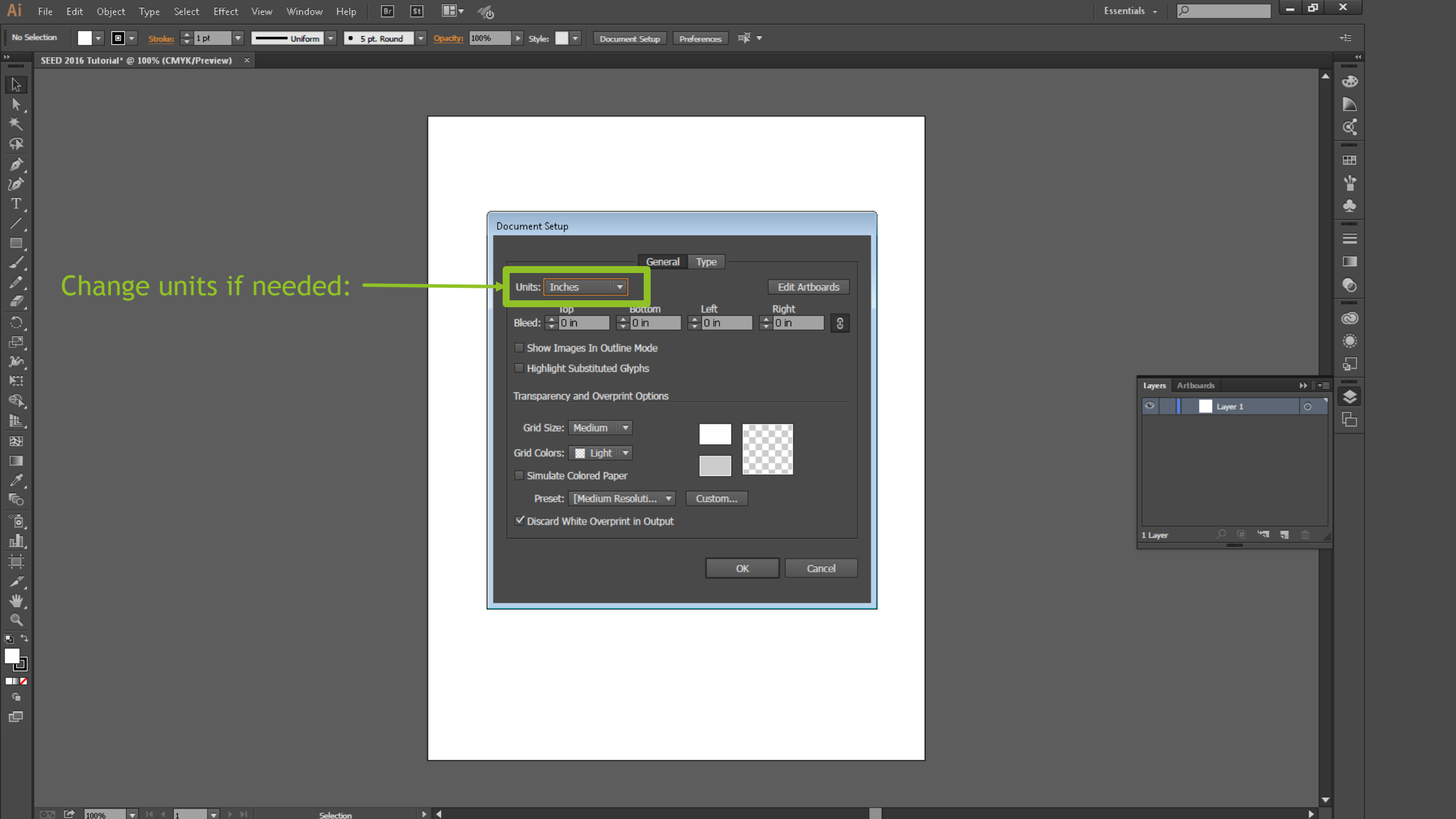


Click "OK"
to create a
new file.



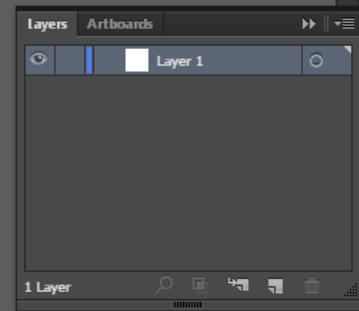
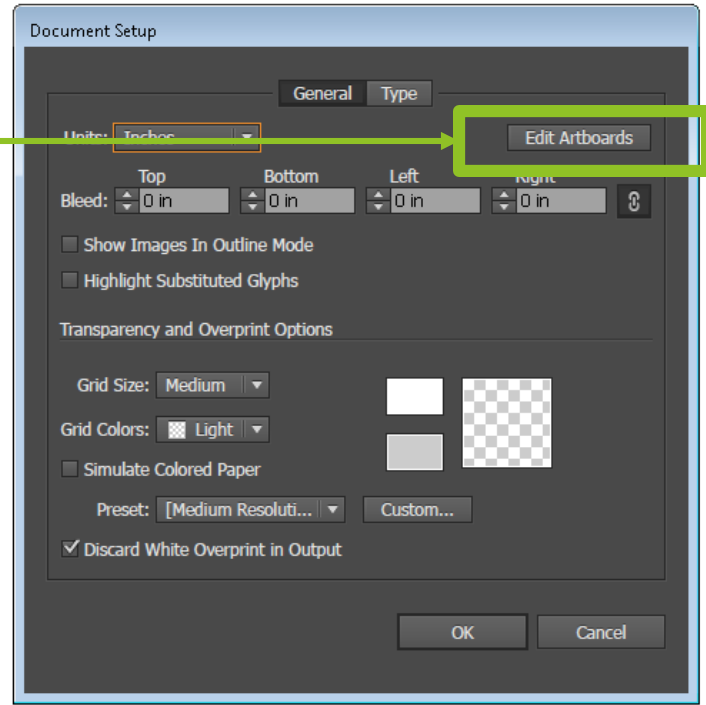
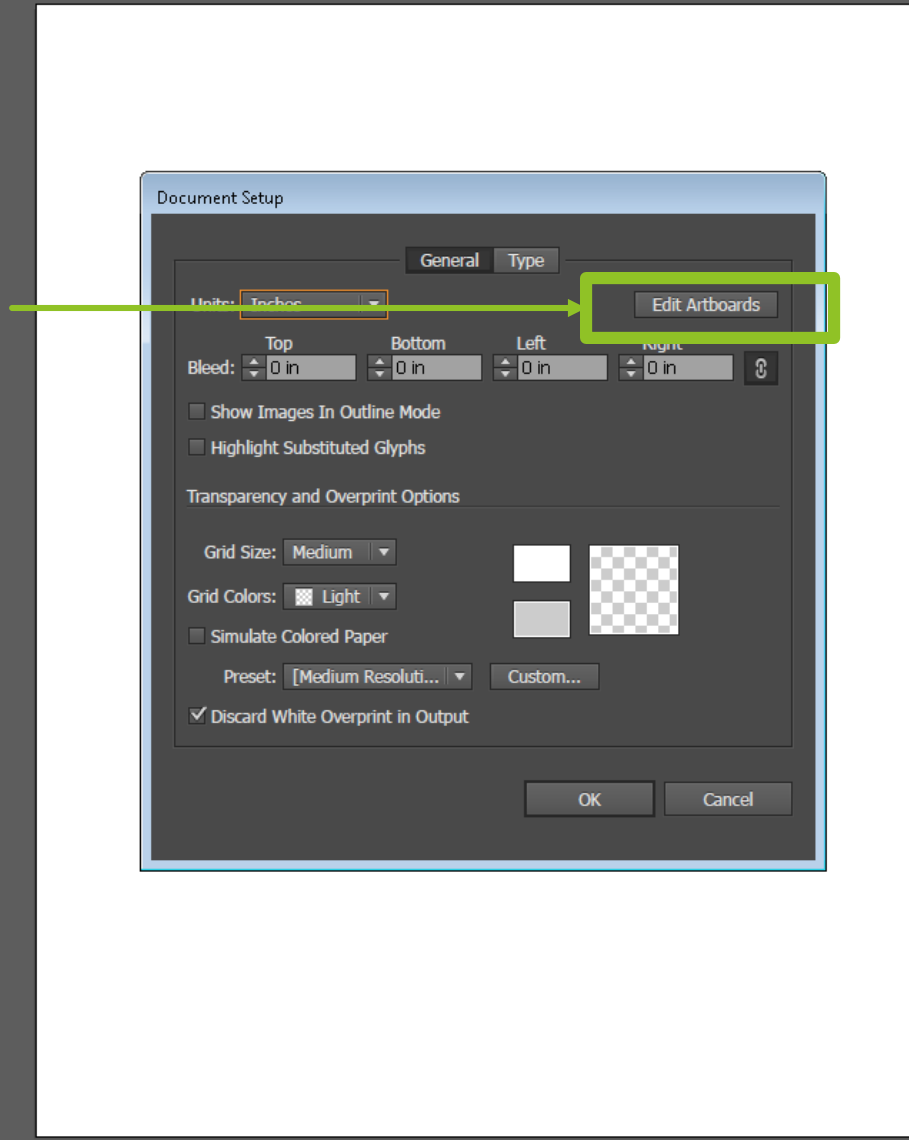
Want to change your initial preferences? Access your preferences:

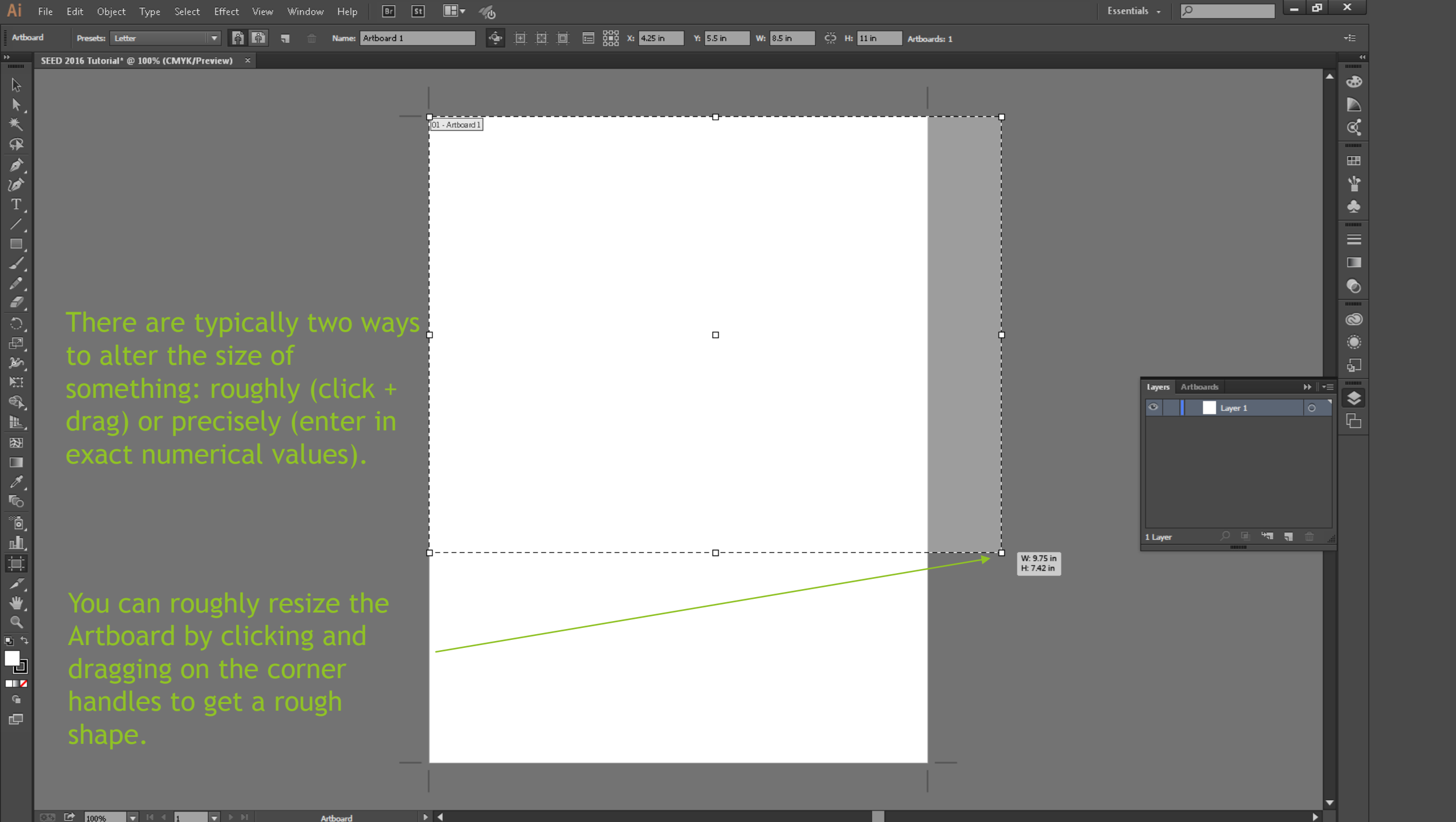
- File -> Document Setup
- Hotkey: **ALT + CTRL + P**

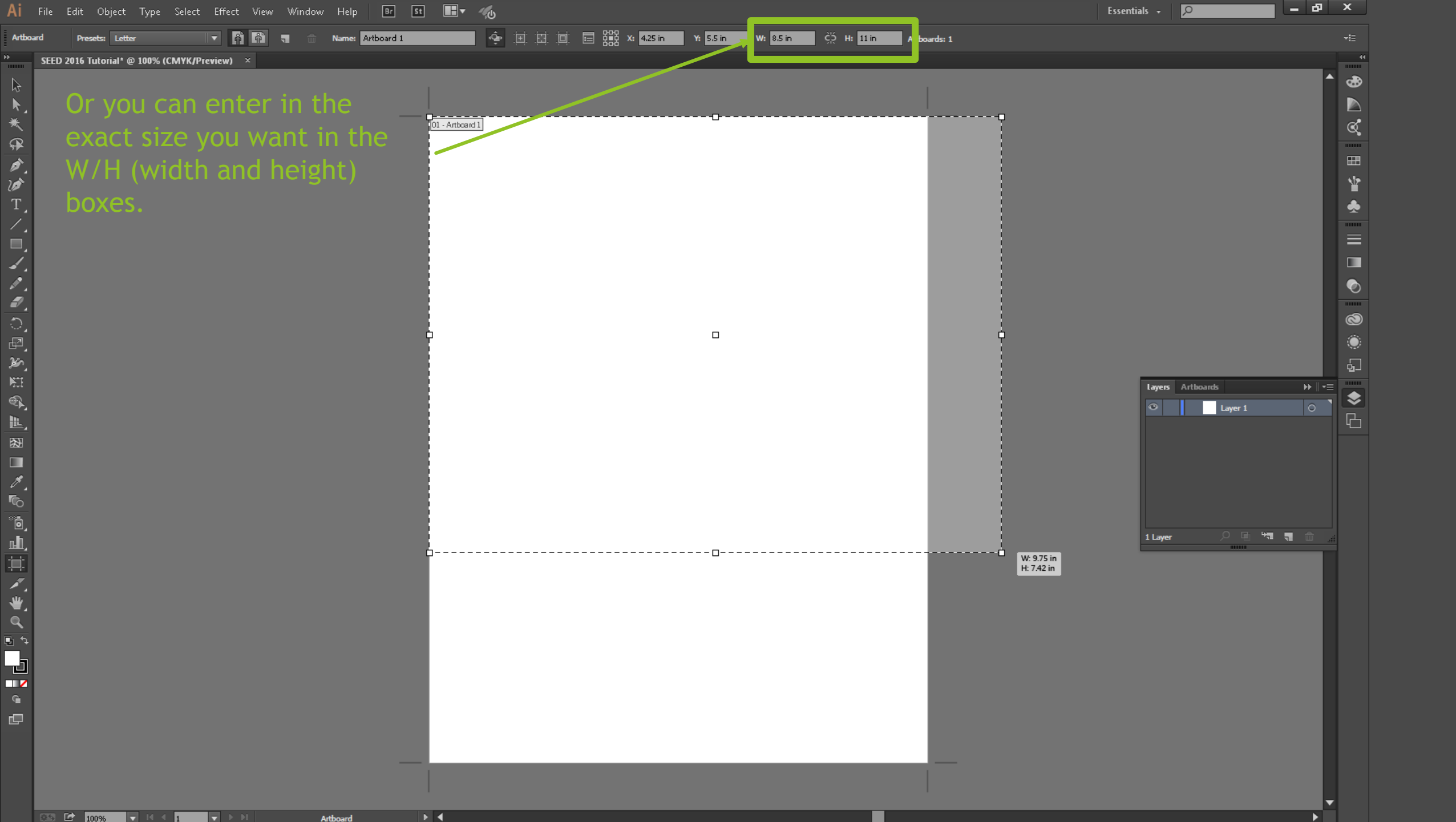


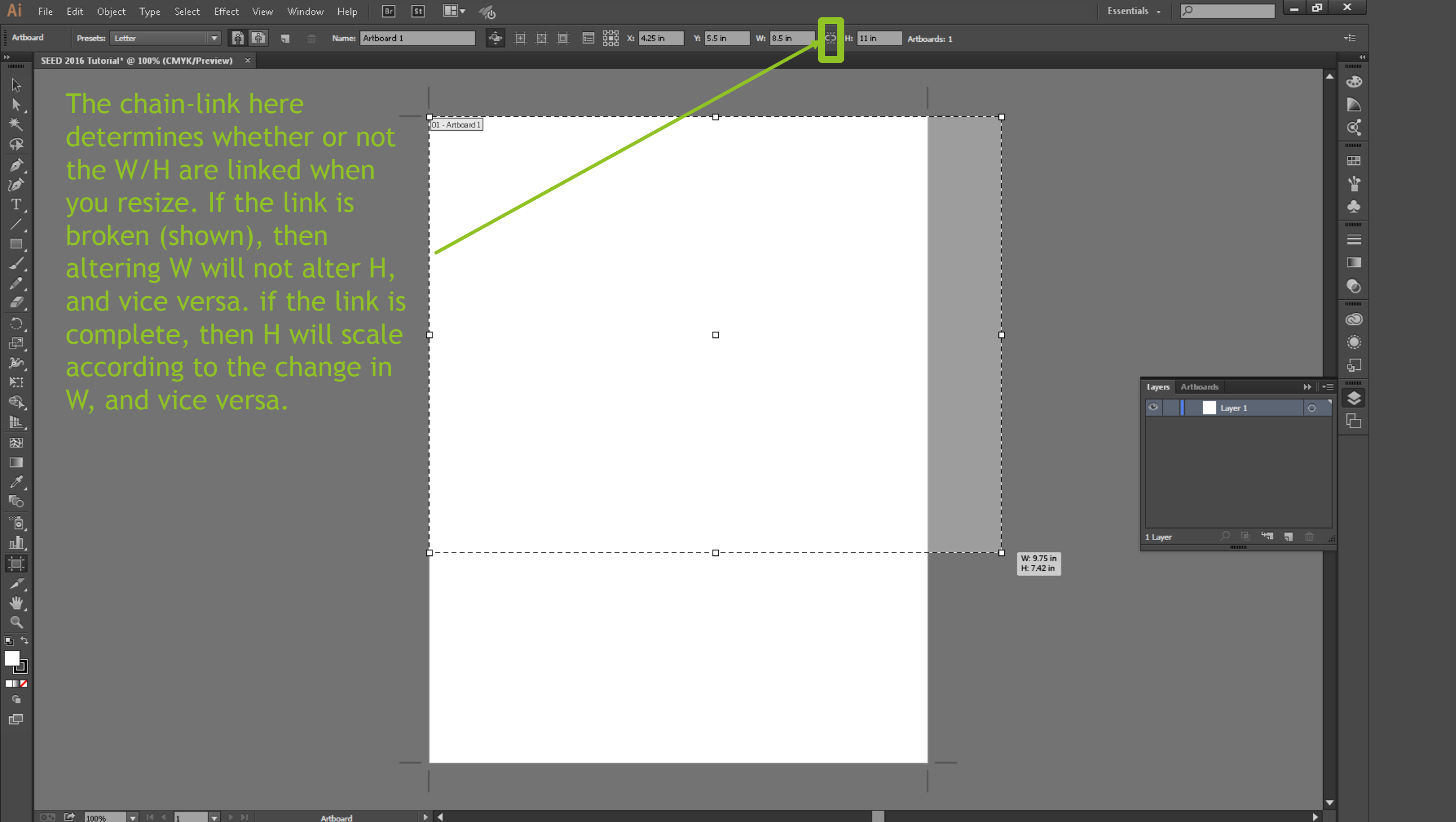
Change units if needed:

Let's resize our workspace. Your workspace is determined by the size of your Artboard:





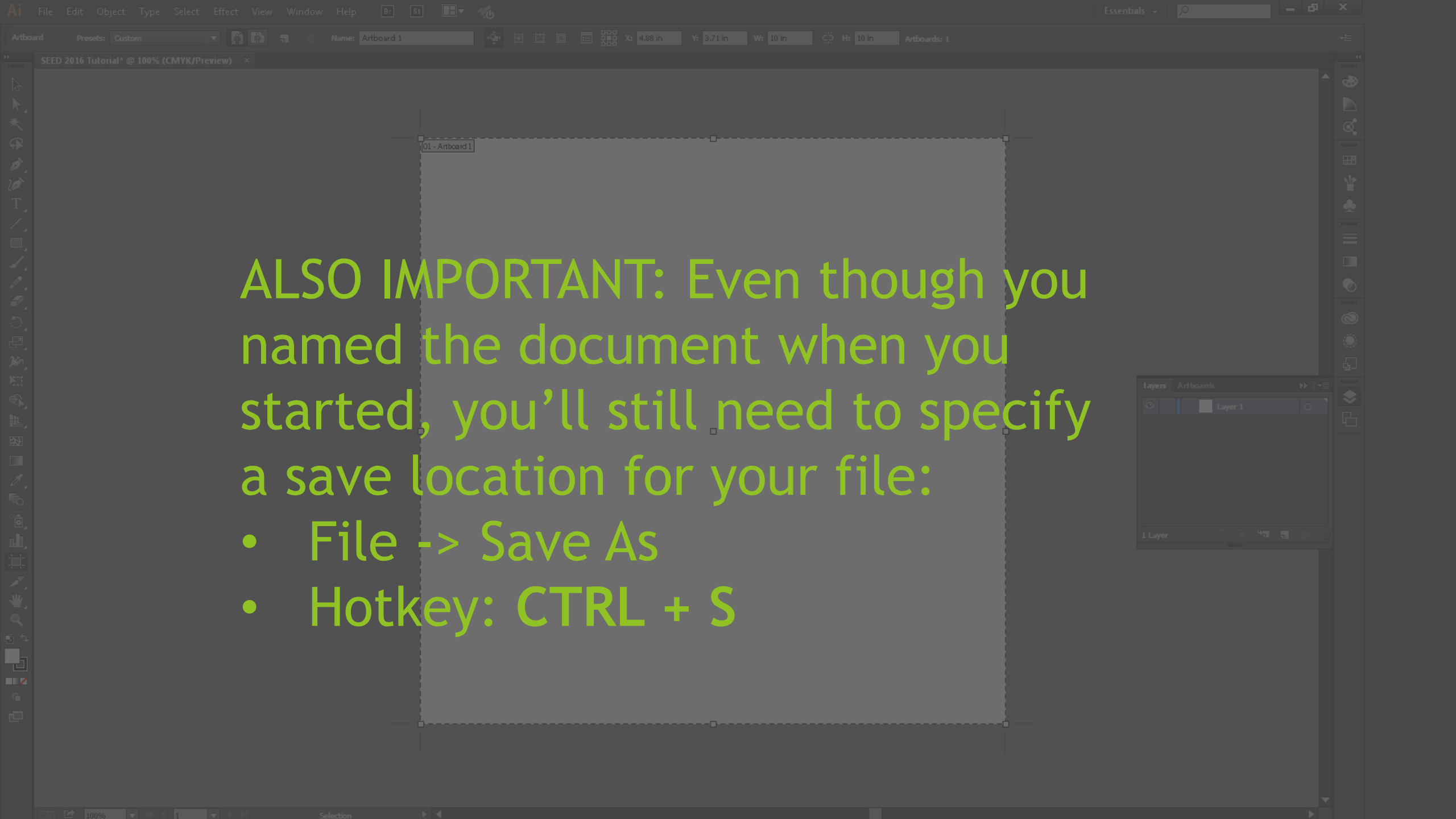




The background of the slide is a screenshot of the Adobe Illustrator interface. It shows a dark gray workspace with a single artboard labeled '01 - Artboard 1' in the top-left corner. The artboard is a light gray rectangle with dashed borders and crop marks. The top of the screen features a menu bar with options like File, Edit, Object, Type, Select, Effect, View, Window, and Help. Below the menu bar is a toolbar with various icons. On the right side, there are panels for 'Essentials', 'Layers', and 'Artboards'. The 'Layers' panel shows 'Layer 1' selected. The 'Artboards' panel shows 'Artboard 1' selected. The bottom of the screen has a status bar with '100%' and 'Selection'.

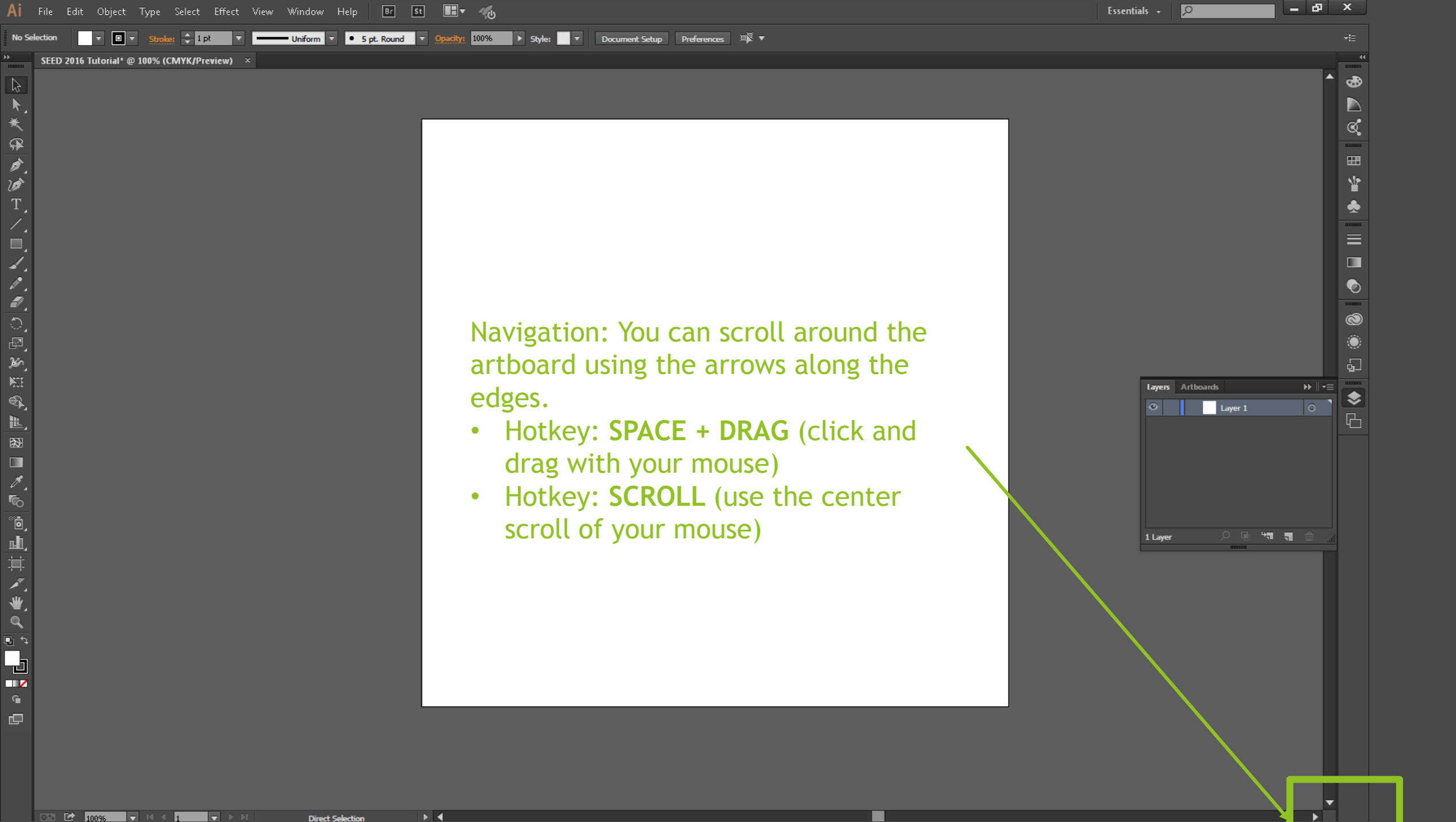
IMPORTANT: the laser cutter and plasma cutter will only recognize graphics inside of your first Artboard

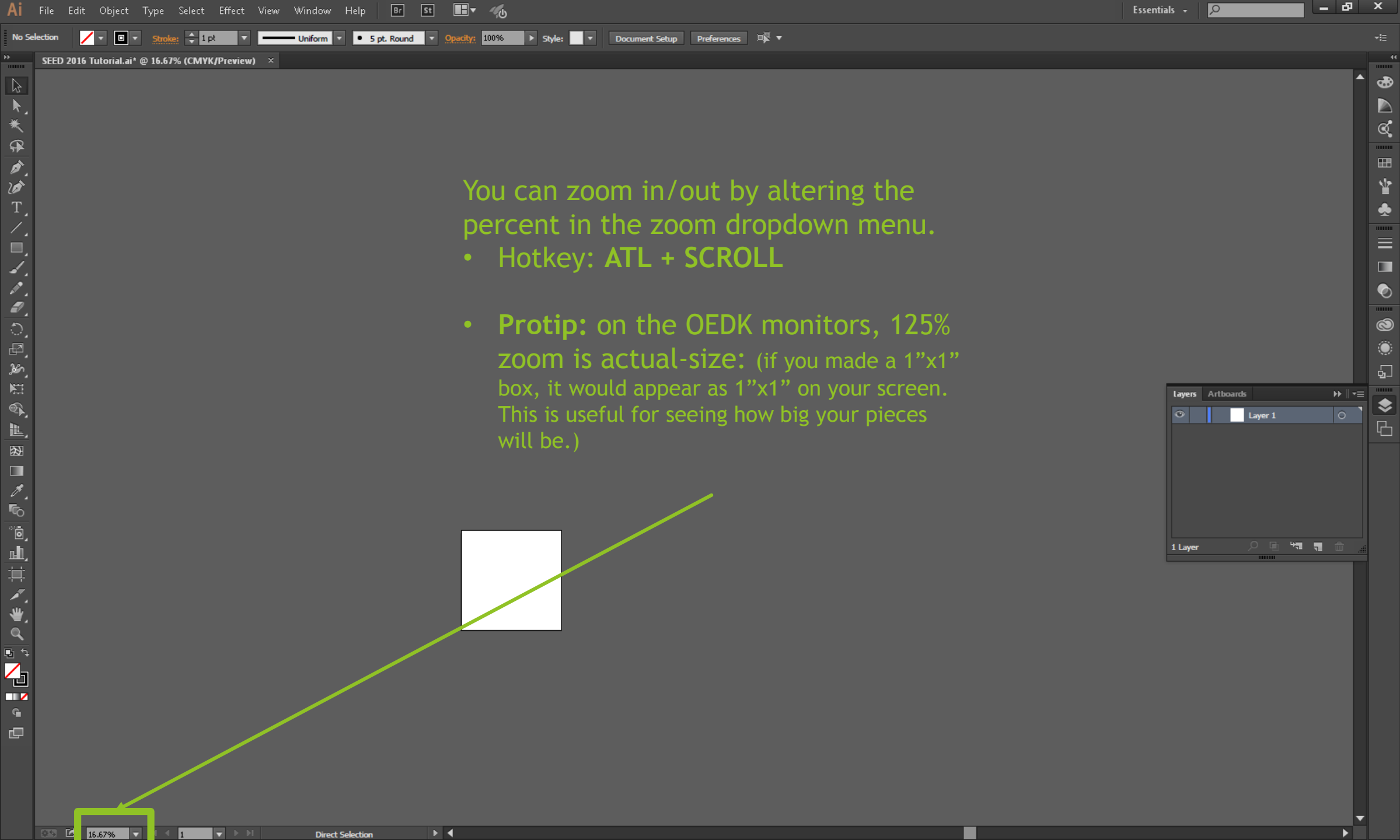
- Don't draw outside of your Artboard
- Don't use multiple Artboards.

The background of the image is a screenshot of the Adobe Illustrator interface. It shows a dark gray workspace with a single artboard labeled '01 - Artboard 1' in the top-left corner. The artboard is a light gray rectangle with dashed borders and crop marks. The top of the screen features a menu bar with options like File, Edit, Object, Type, Select, Effect, View, Window, and Help. Below the menu bar is a toolbar with various icons for drawing and editing. On the right side, there are panels for 'Layers' and 'Artboards'. The 'Layers' panel shows 'Layer 1' selected. The 'Artboards' panel shows 'Artboard 1' selected. The bottom of the screen has a status bar with '100%' zoom and 'Selection' tool active.

ALSO IMPORTANT: Even though you named the document when you started, you'll still need to specify a save location for your file:

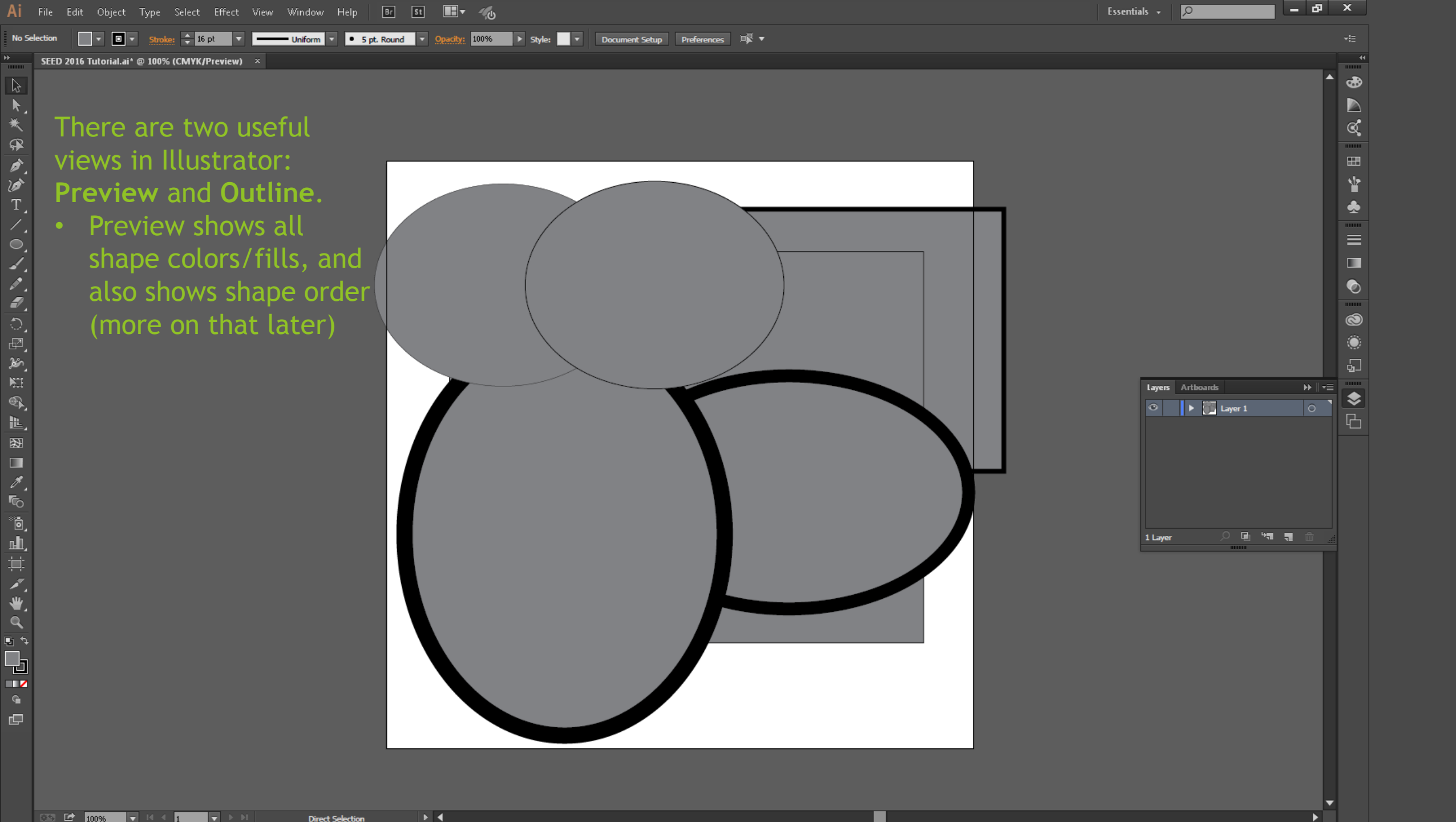
- File -> Save As
- Hotkey: CTRL + S





You can zoom in/out by altering the percent in the zoom dropdown menu.

- Hotkey: ATL + SCROLL
- **Protip:** on the OEDK monitors, 125% zoom is actual-size: (if you made a 1"x1" box, it would appear as 1"x1" on your screen. This is useful for seeing how big your pieces will be.)



There are two useful views in Illustrator: **Preview** and **Outline**.

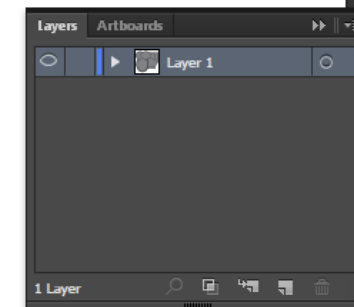
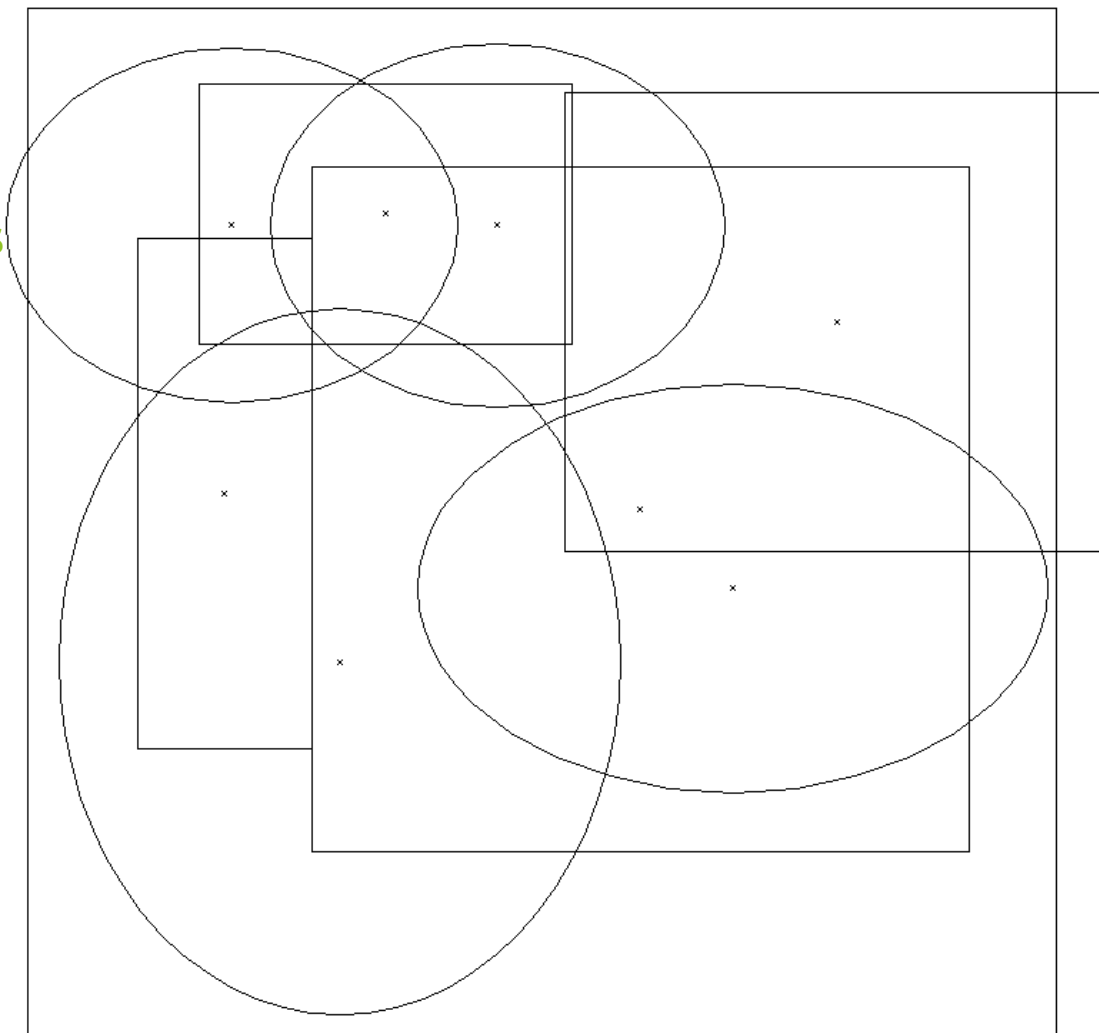
- Preview shows all shape colors/fills, and also shows shape order (more on that later)

There are two useful views in Illustrator: **Preview** and **Outline**.

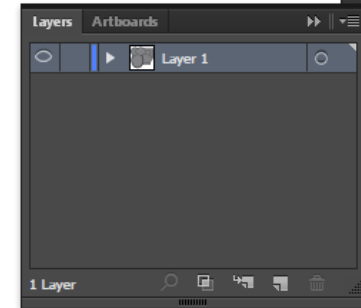
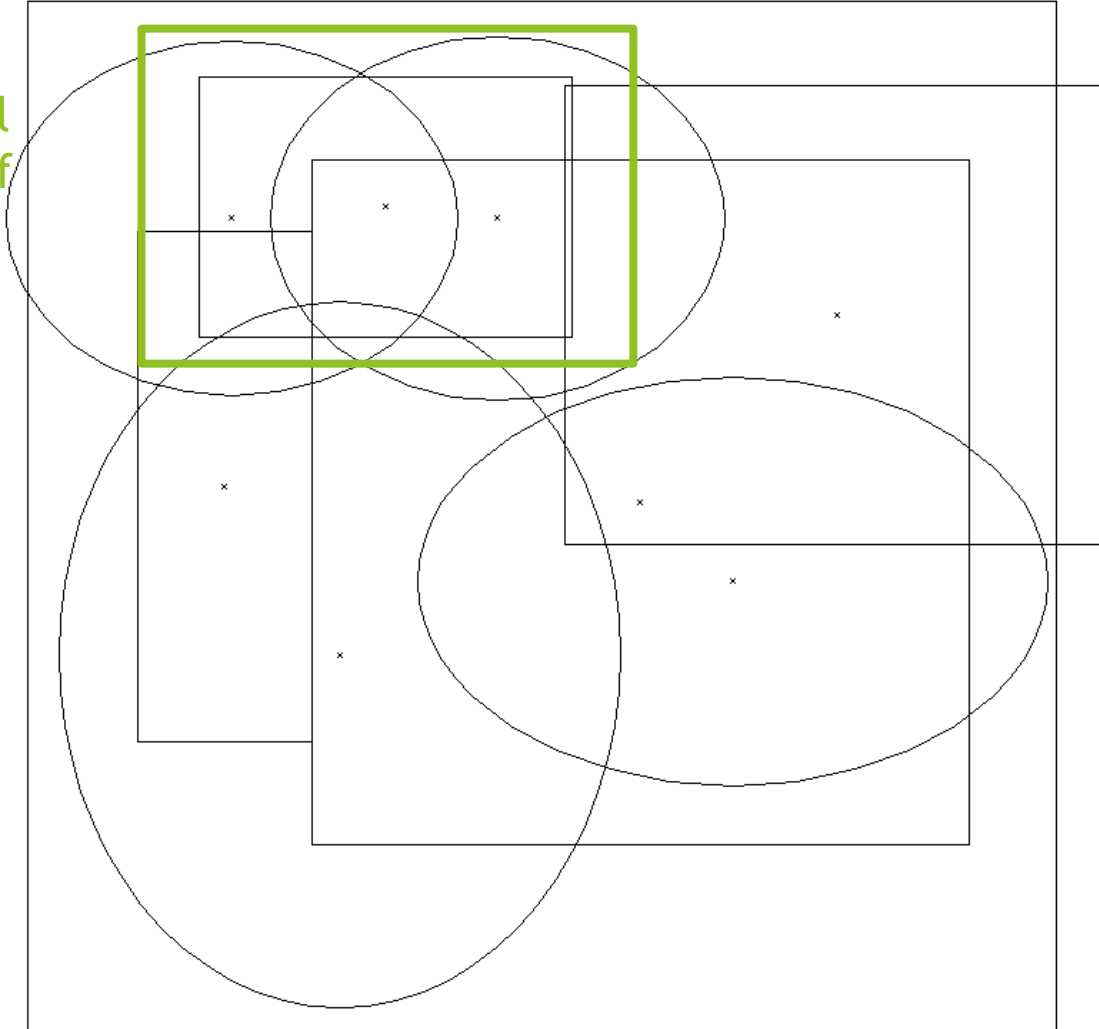
- Outline erases all colors/outlines, hides shape order, and shows the center point of shapes.

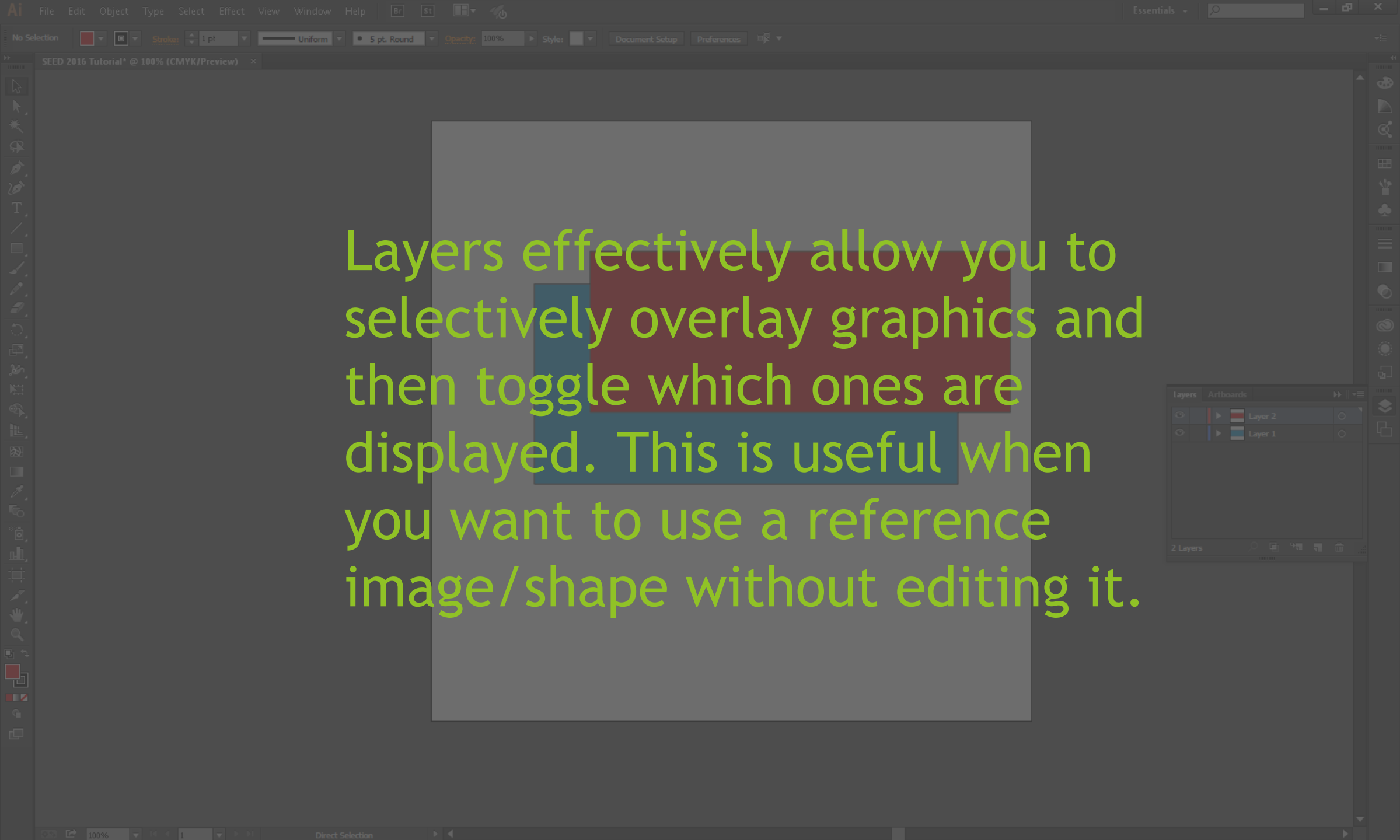
Switching between modes:

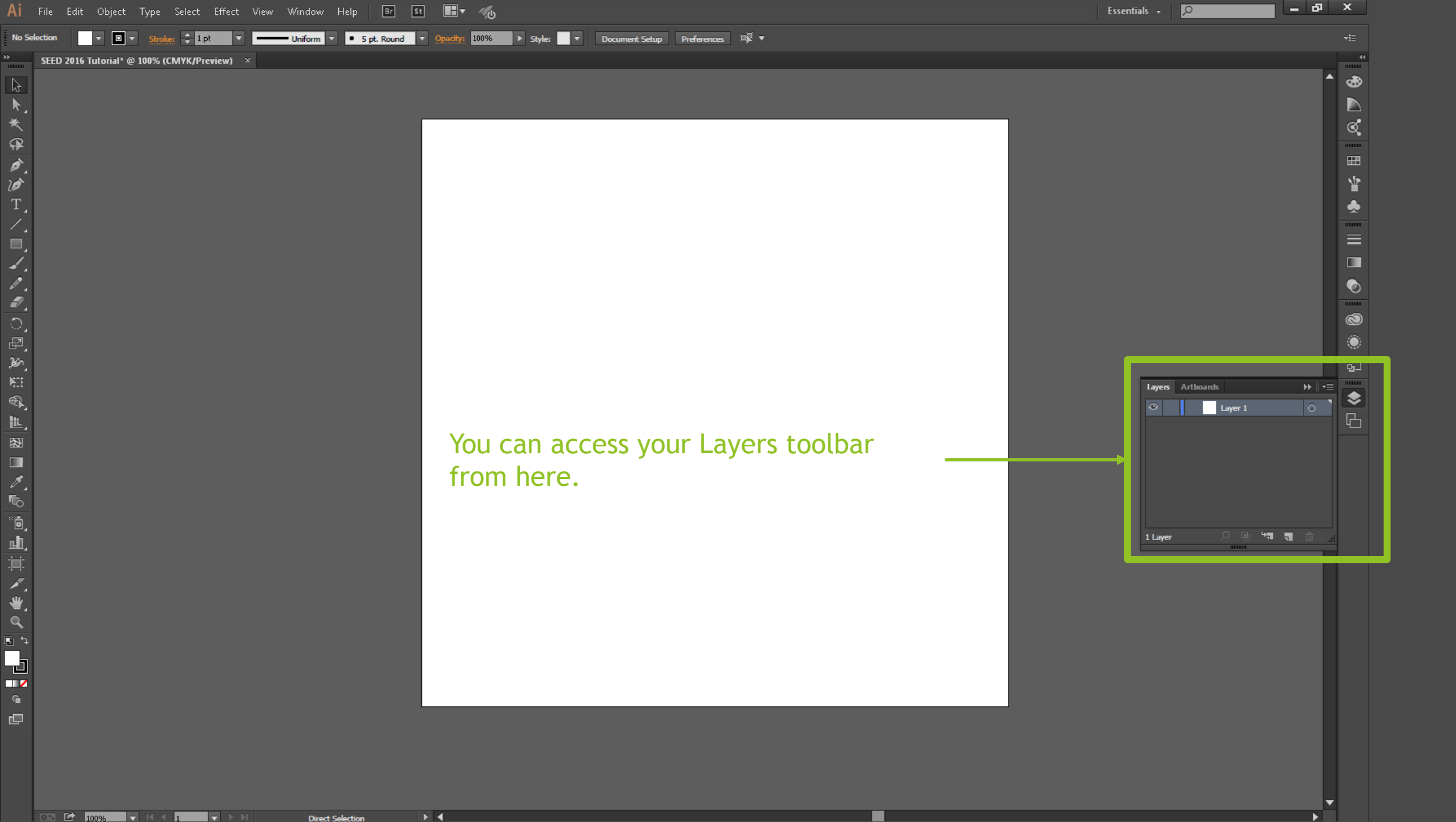
- Hotkey: **CTRL+Y**
- View -> Preview



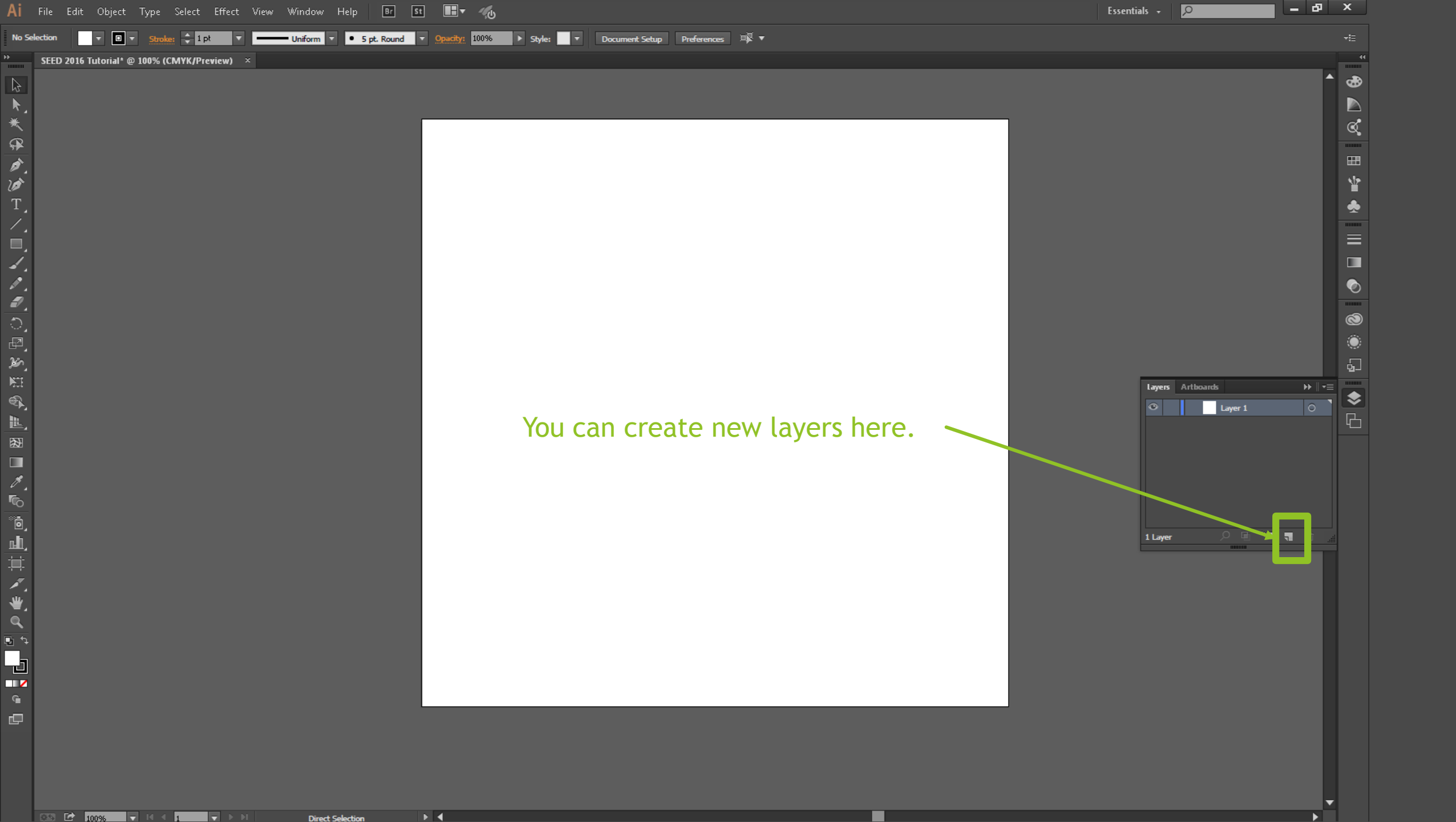
Notice how some shapes
 are only visible in Outline
 mode. This is useful
 because PC/LC will cut all
 solid lines, regardless of if
 they are covered or not.



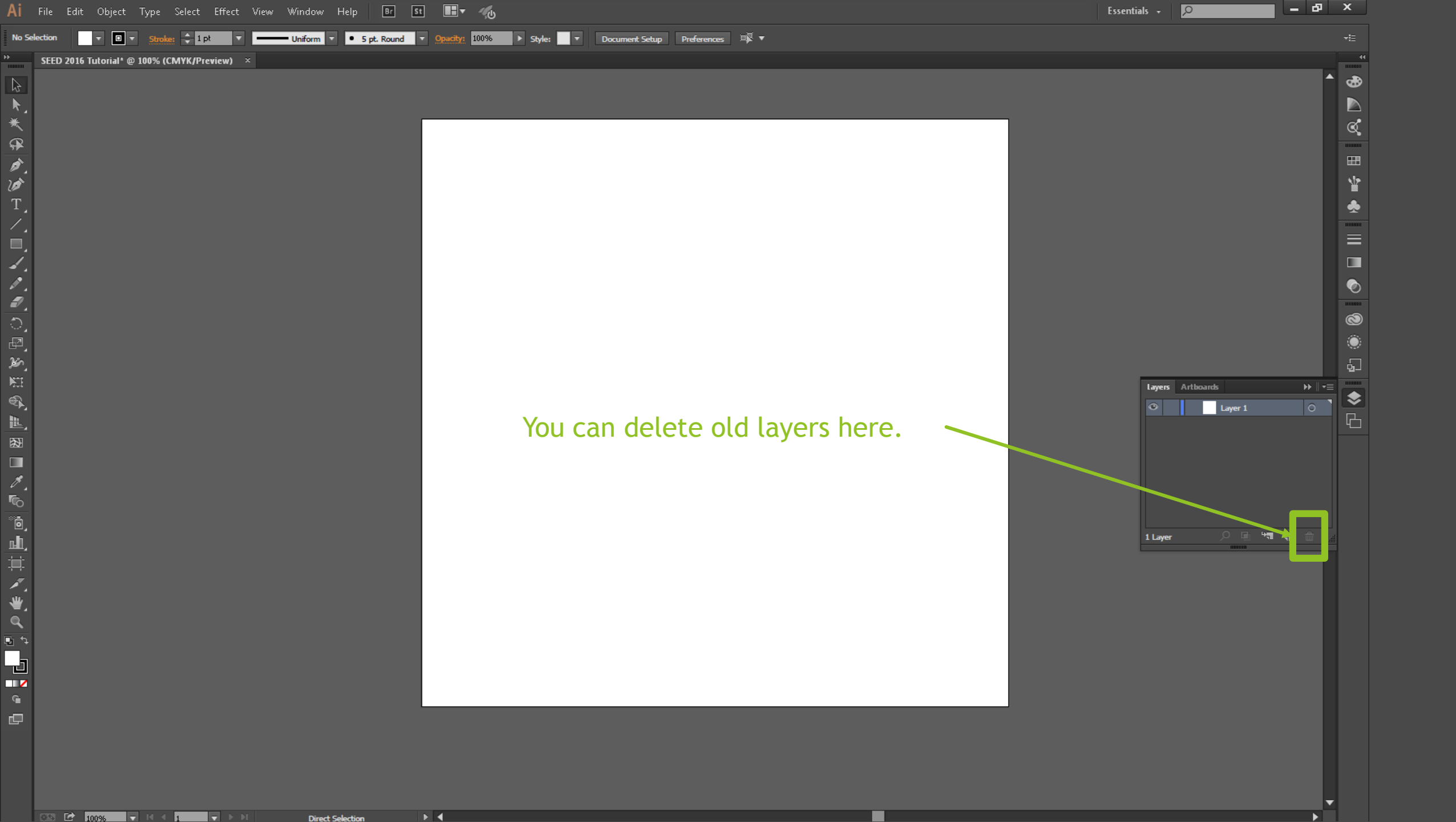


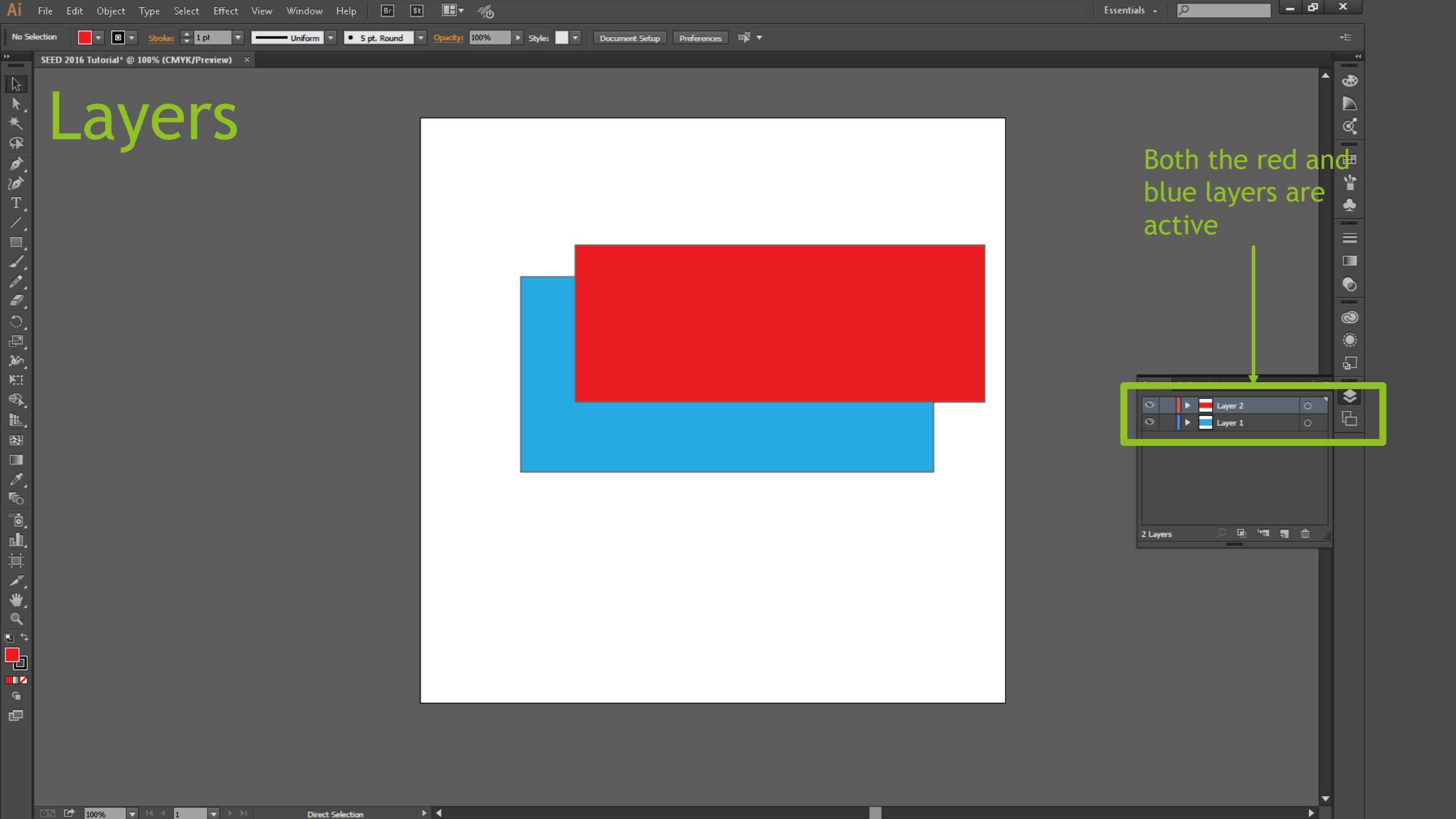


You can access your Layers toolbar from here.



You can create new layers here.



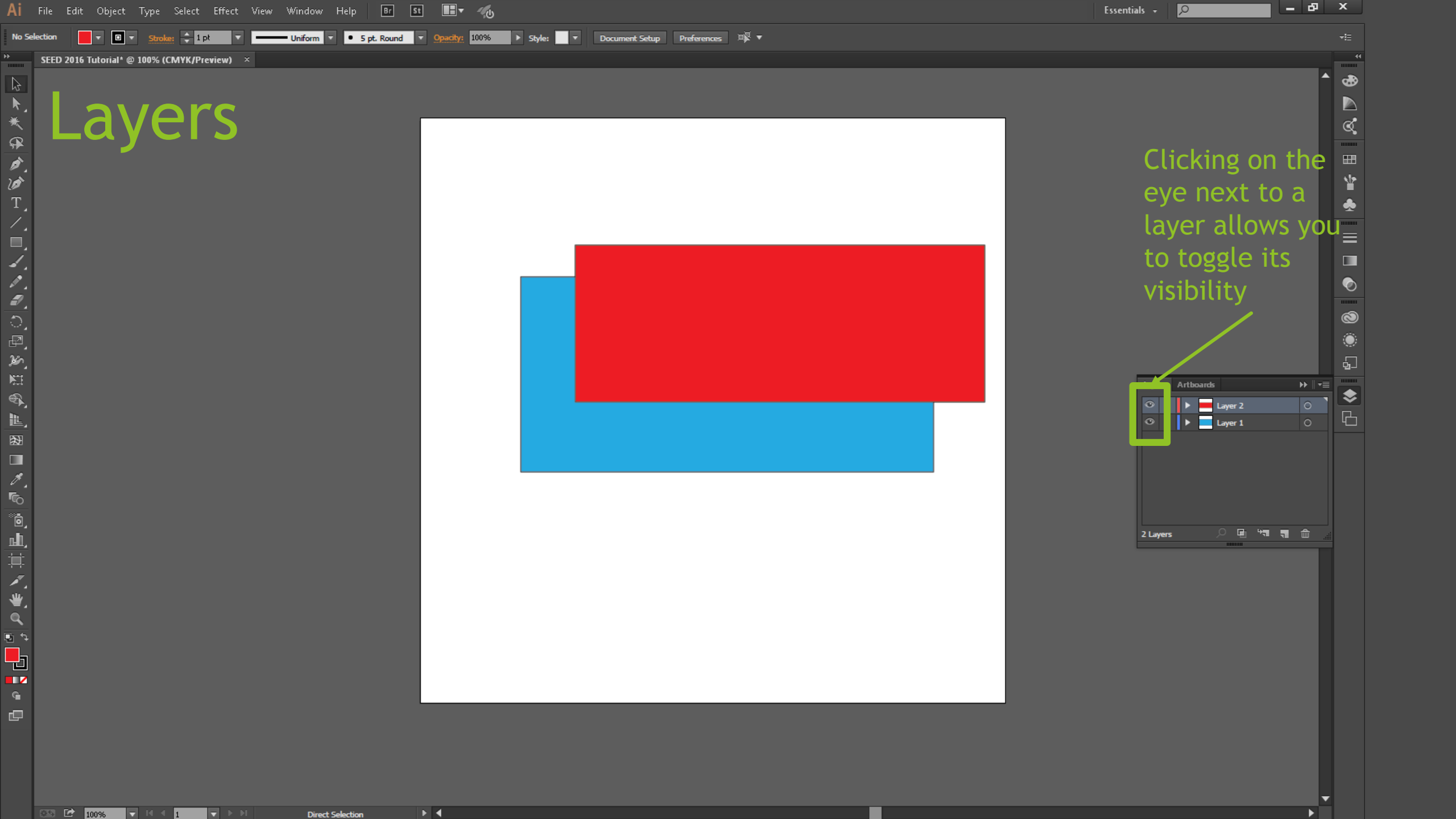


Layers

Both the red and
blue layers are
active

			Layer 2	
			Layer 1	

2 Layers



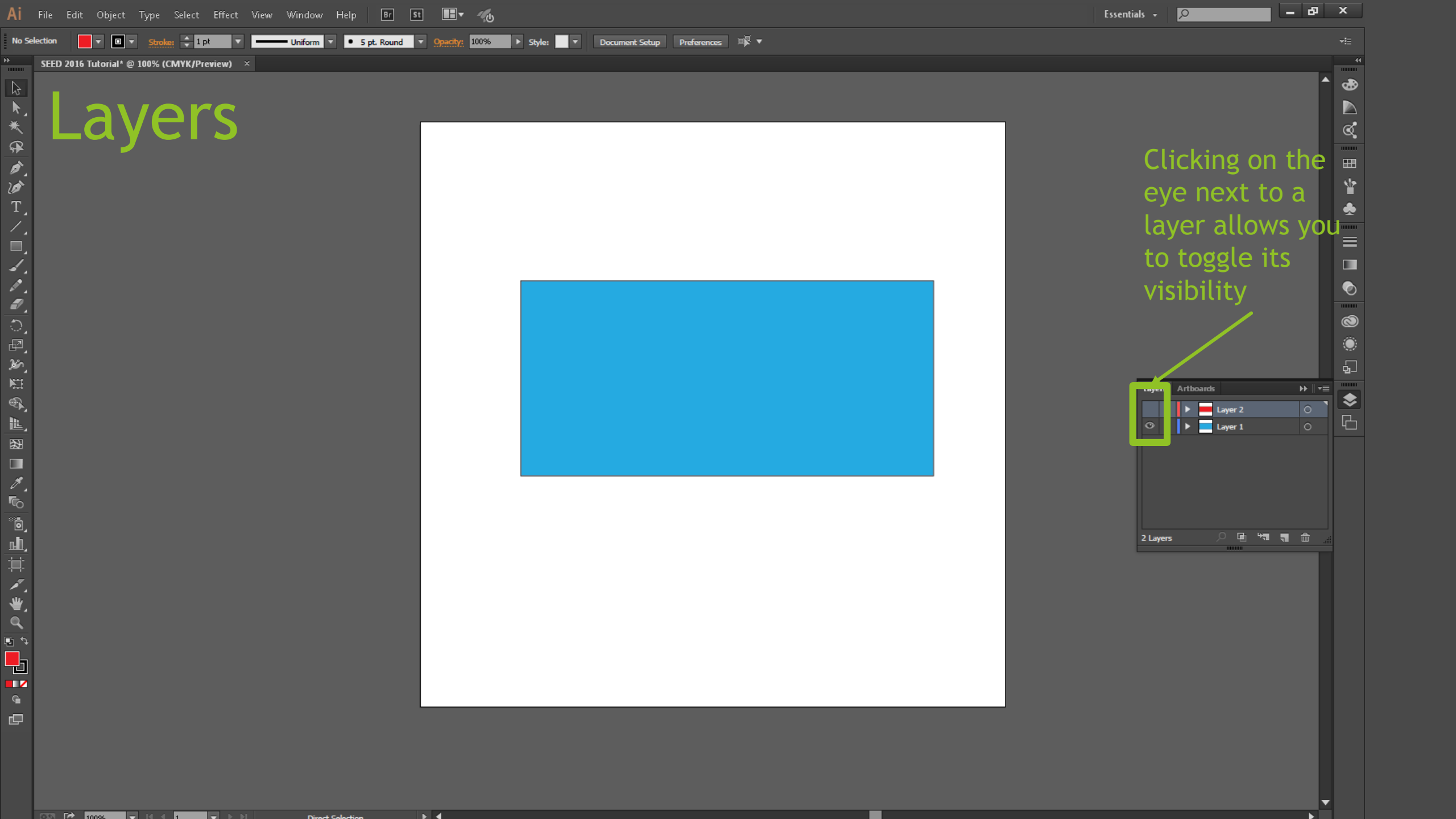
Layers

Clicking on the eye next to a layer allows you to toggle its visibility

Artboards

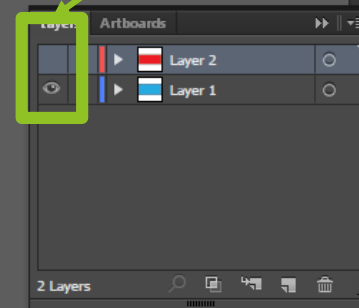
			Layer 2	
			Layer 1	

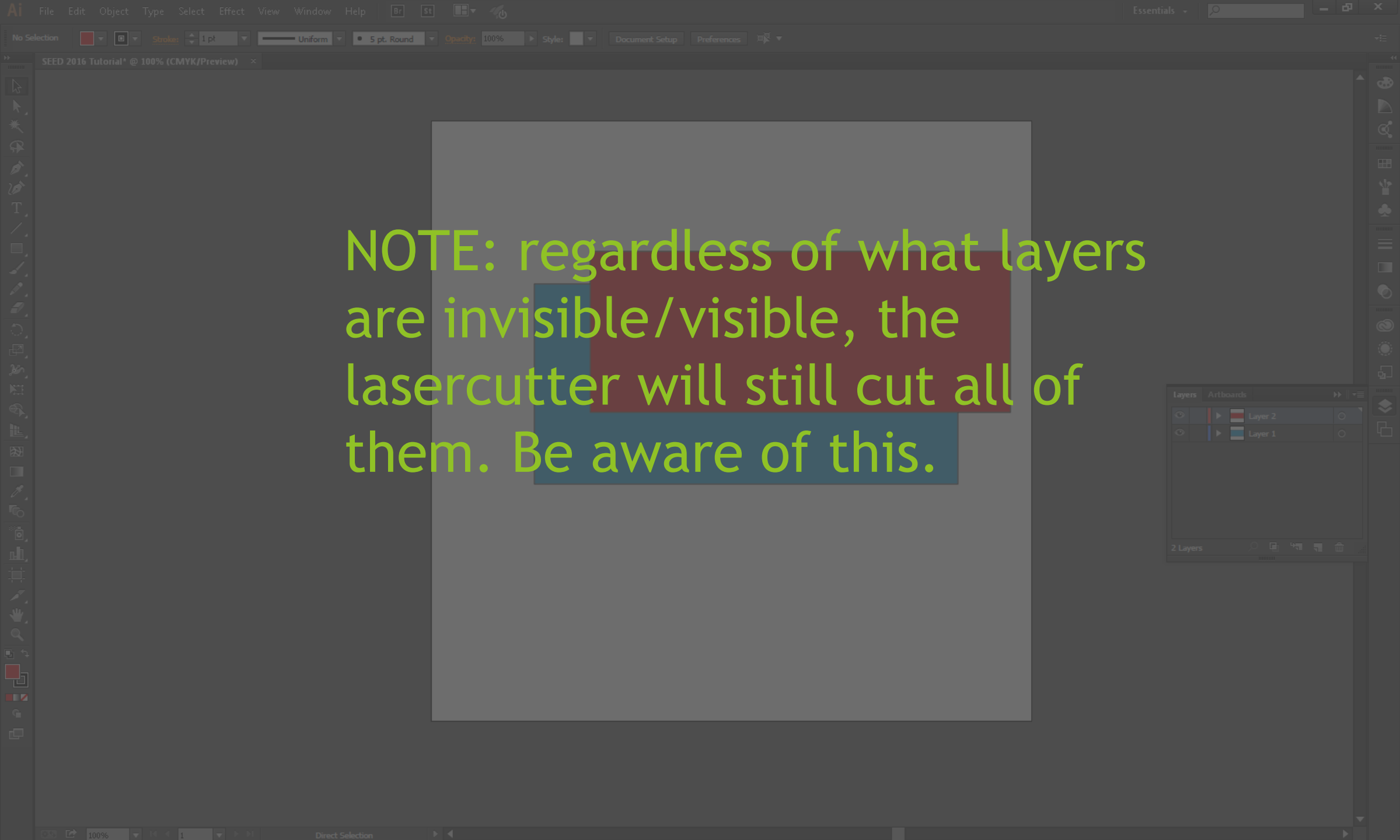
2 Layers



Layers

Clicking on the eye next to a layer allows you to toggle its visibility





Superbasics Wrap-Up

- ▶ Leaving this tutorial, you should know the following about **navigation**:
 - ▶ How to create and save a file
 - ▶ How to edit the size of your workspace
 - ▶ How to maneuver around the workspace
 - ▶ Zoom
 - ▶ Scroll / translational motion
- ▶ And you should be aware of the following **terminology**:
 - ▶ Hotkeys
 - ▶ Artboards
 - ▶ Layers