Adobe Illustrator Essentials Guide

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Why Illustrator?

Objective:
- Learn the difference between a rasterized file and vector file

- Clip art file formats are divided into 2 different types: bitmap or vector graphics
    - *Bitmap* or *"rasterized"* file formats are used to describe images made up of a grid of multicolored or black and white pixels. Bitmap images are always limited in quality by their resolution, which must be fixed at the time the file is created by increasing the resolution.
        - Most common web-based file formats such as GIF, JPEG, PNG, BMP, TGA and TIFF
    - *Vector* file formats are mathematical calculations that form shapes. Because a vector image is described using geometric data instead of fixed pixels, the image can be scaled to any size while retaining "resolution independence", meaning that the image can be printed at the highest resolution a printer supports, resulting in a clear, crisp image.
- In essence, vector images are infinitely scalable without pixilation.

Bitmap Pixilation
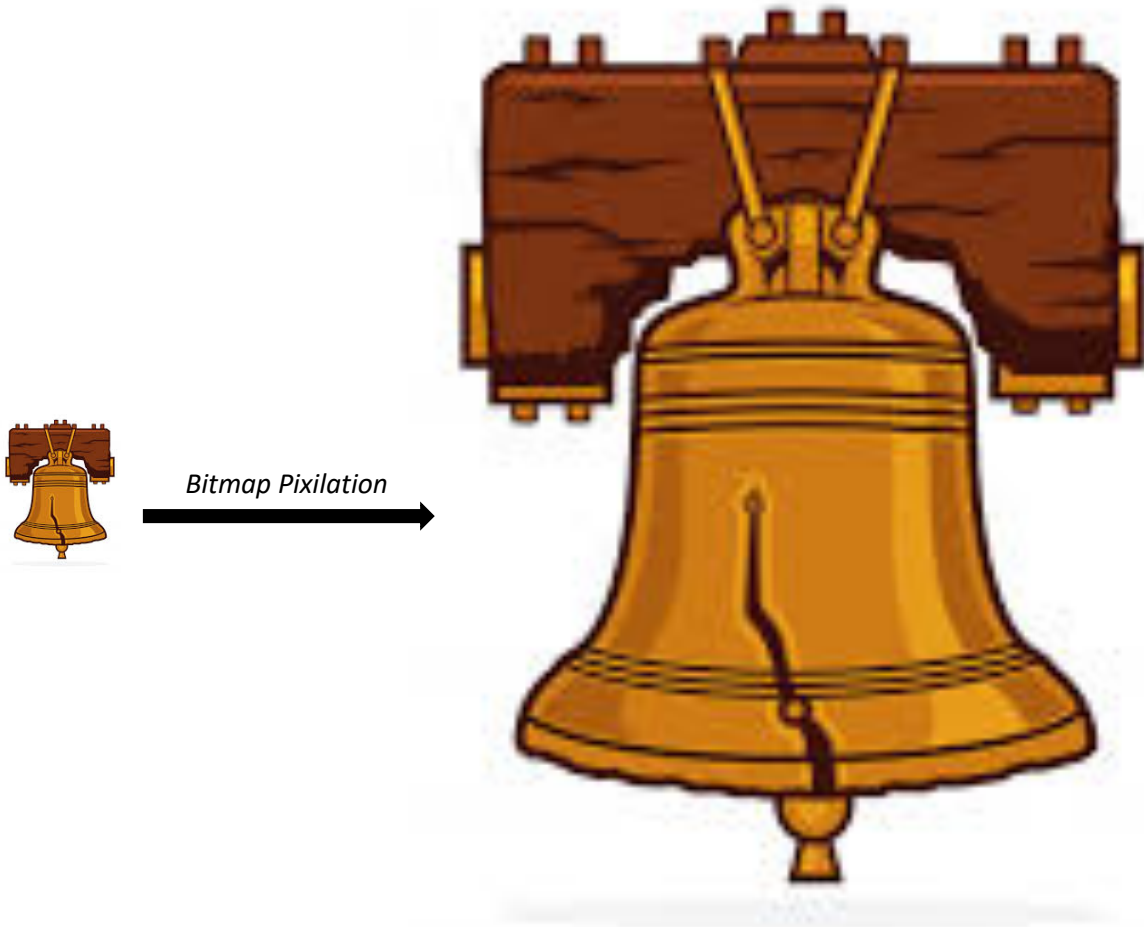
Create a New Document

Objective:
- Learn how to make a new document and what lives on the 'New Document' screen
- The start screen appears when there are no documents currently open in Illustrator. It lists your recent files, learn content, and presets. You can also search Adobe Stock from here.

1. Open Adobe Illustrator – 'Create New'
   a. At the top of the window you will see preset options to choose from Adobe Stock. ('Mobile' 'Web' 'Print' etc.) Under each tab will be free templates to download and edit.
2. Choose the type of Document (most times it will be 'Letter'- 8 ½ x 11 inches) - Name your document - Make sure 'Units' are in inches or centimeters
   a. Change 'Color Mode' if needed ('CMYK Color' is for printing, 'RGB Color' is for Web or Computer Screen Optimization)
   b. 'Bleed' is the outermost parts of the artboard that act as margins. This is important if you would like to print a poster at a specific size and not worry about the edges getting cut off.
   c. You can access and edit all of this information in the 'Properties Panel' once the document has been created.
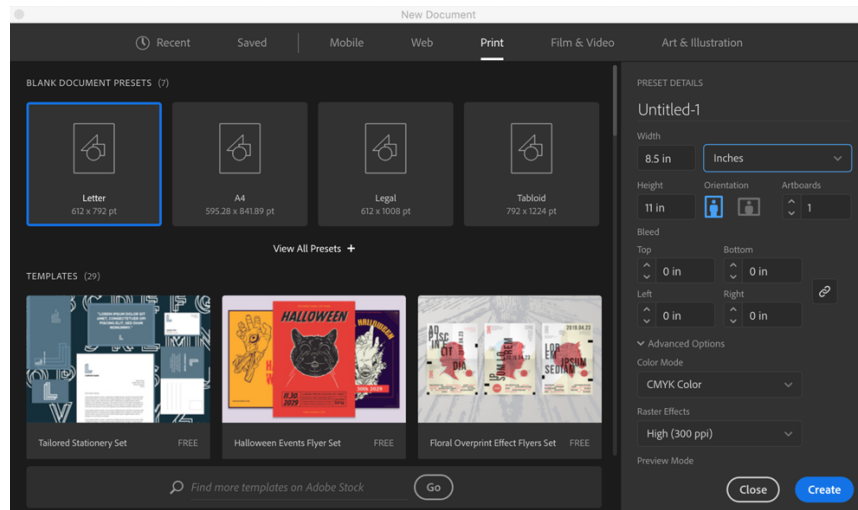
3. Reset your workspace: Choose 'Essentials Classic' and then 'Essentials' (This guide will be set in an 'Essentials' workspace) – Next make sure to select 'Reset Essentials' under the same menu to have a clean workspace.

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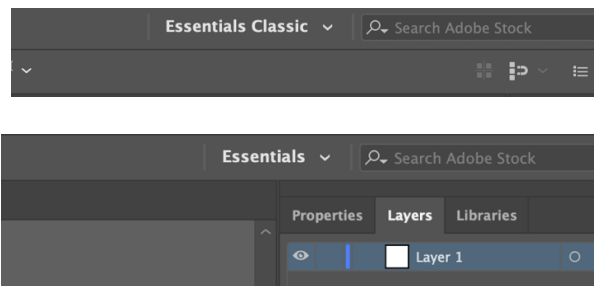
4. Show Rulers: 'View' – 'Rulers' – 'Show Rulers' (Rulers will be in the unit you set the document)
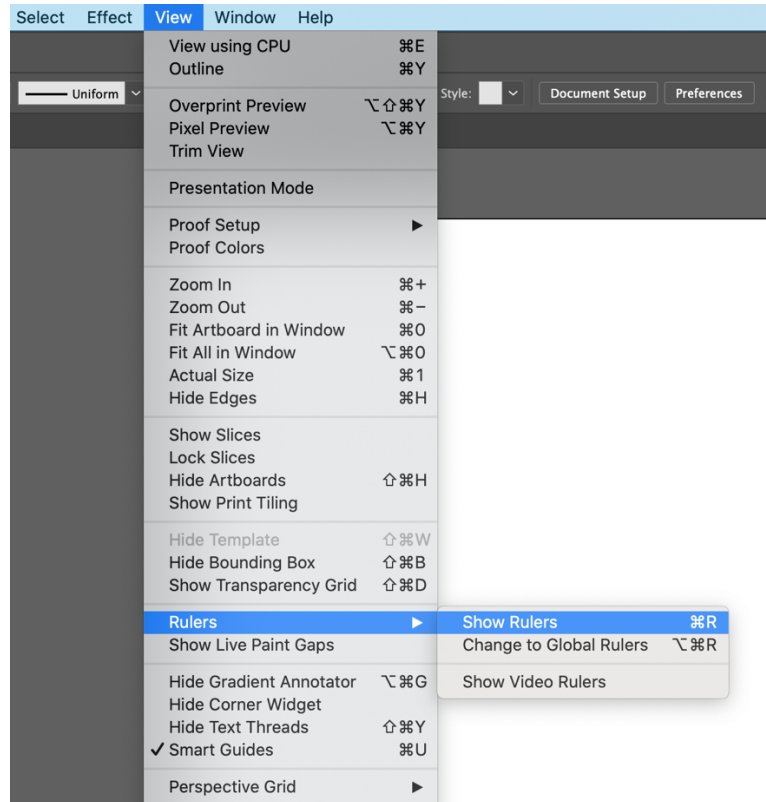
5. Activate Smart Guides: 'View' – 'Smart Guides'
   a. Smart guides are magenta display lines that show up near objects. They are temporary snap-to guides that appear when you create or manipulate object. They help you align, edit, and transform objects relative to other objects by snap-aligning and displaying X and Y locations.
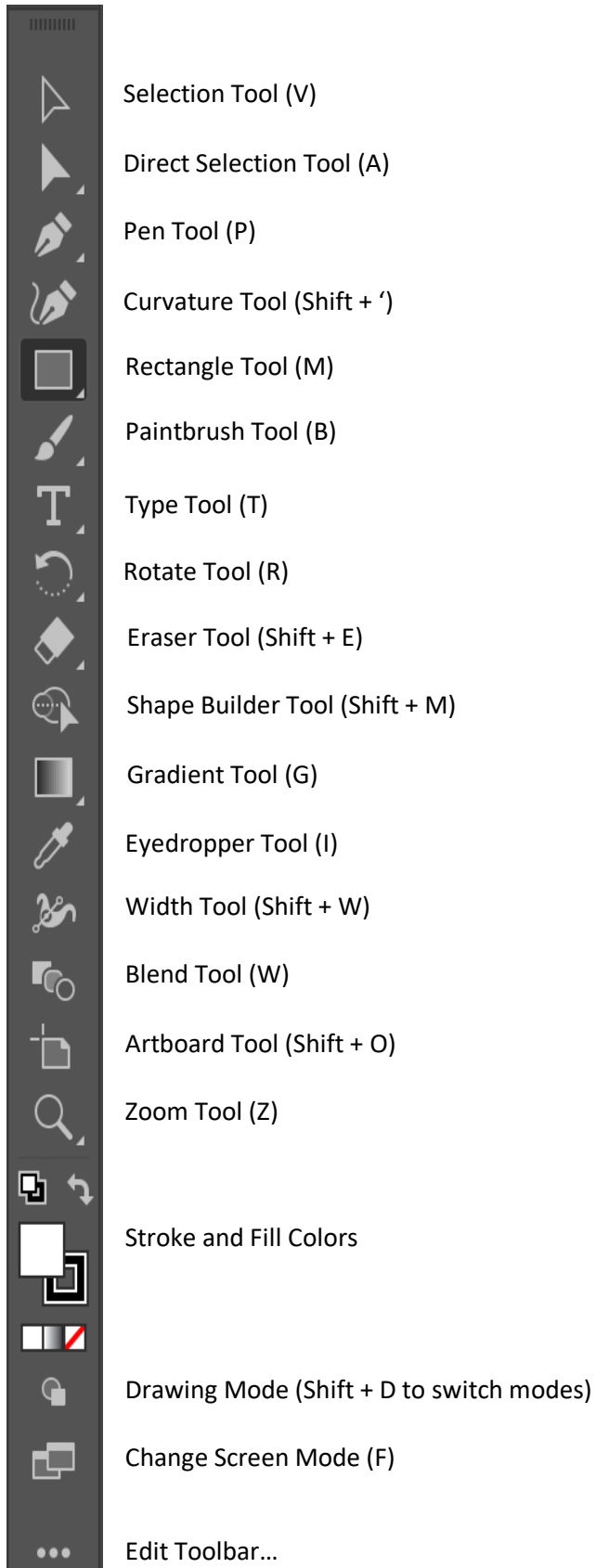6. Fit Art Board to Window: 'View' – 'Fit Artboard in Window'

Get to Know Illustrator

Objective:
- Learn general terms used for the Illustrator Workspace
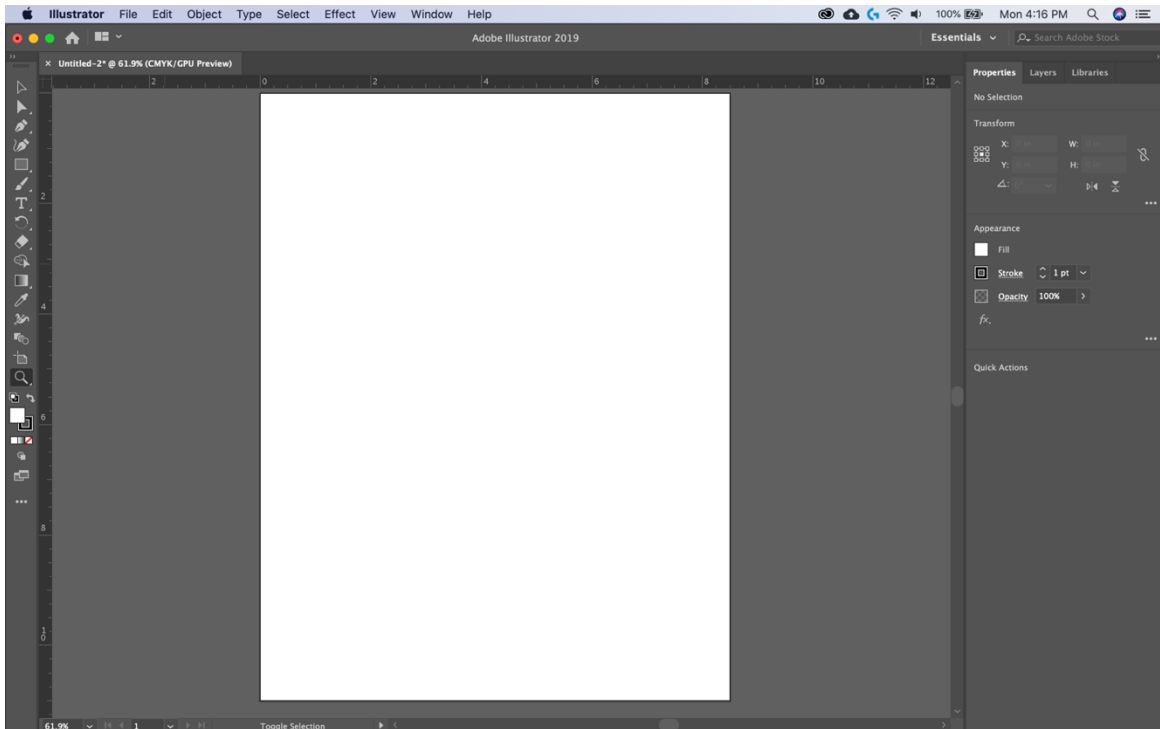
- **Menu bar** (at the very top) shows the 'File', 'Edit', 'Object', etc. These give you access to a variety of commands, adjustments, settings, and panels.
- **Tools Panel** (on the left) contains tools for creating and editing artwork. Similar tools are grouped together. You can access them by left clicking OR click and holding a tool in the 'Tools Panel'.
- **Panels** (on the right) include 'Properties', 'Layers', and other panels that contain a variety of controls for working with artwork. You can find a full list of other panels under the 'Window' menu. Panels in the 'Window' menu can be added to the panels dock on the right or left freely floating in the 'Document Window'.
- **Document Window** (in the middle) displays the file you're currently working on. Multiple open documents appear as tabs at the top of the 'Document Window'.
- **Artboard** (white "page" in the middle) is where you will create your artwork.

- Illustrator has a very customizable workspace if there is a tool you cannot find in the 'Tools Panel' select 'Edit Toolbar…' (three dots at the bottom of the toolbar) and a list of all tools are available for you to place in the 'Tools Panel'.

Selection Tool (V)

Direct Selection Tool (A)

Pen Tool (P)

Curvature Tool (Shift + ')

Rectangle Tool (M)

Paintbrush Tool (B)

Type Tool (T)

Rotate Tool (R)

Eraser Tool (Shift + E)

Shape Builder Tool (Shift + M)

Gradient Tool (G)

Eyedropper Tool (I)

Width Tool (Shift + W)

Blend Tool (W)

Artboard Tool (Shift + O)

Zoom Tool (Z)

Stroke and Fill Colors

Drawing Mode (Shift + D to switch modes)

Change Screen Mode (F)

Edit Toolbar…

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Placing an Image/Locking Objects

Objective:

- Learn how to place an image in an Illustrator File.
- You can use this skill to place images in brochures or place an image outside of the artboard as reference while drawing.

- When you have an image saved to your computer select "File" – "Place…"
- From here a dialog box will pop up so you can browse your computer to select an image.
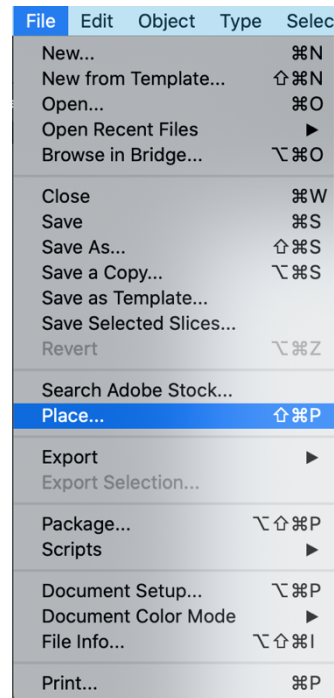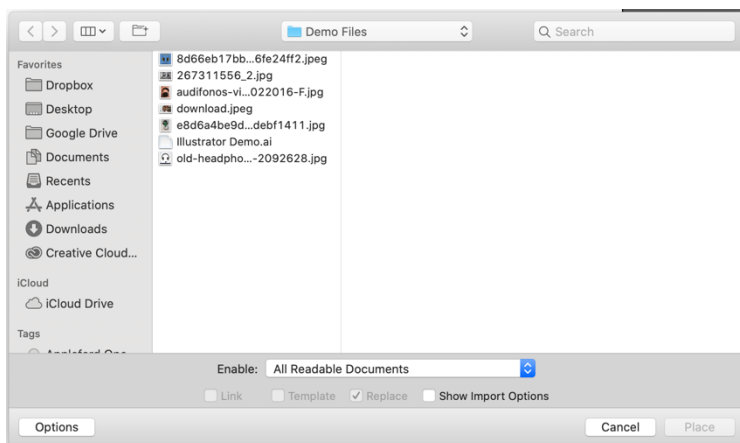
- Once you place the image on or next to the artboard you can move and resize the image by activating the Selection Tool (V) in the Tools Panel. Shift-drag a corner to resize the image without distorting the proportions. When finished, release the mouse button and then the Shift key.
- Click the Crop Image button in the Properties panel on the right side of the document to crop parts of an image.
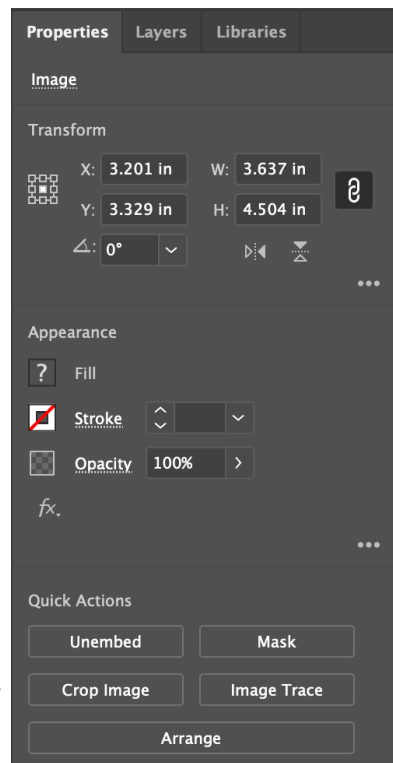
- Drag any handle around the image to remove an unwanted portion. Click Apply in the Properties panel.

- HINT:
  o Make sure to always save the photo until you are finished with the document. If you move the file to a new folder you will need to "replace" the image. AKA find it and place it again.
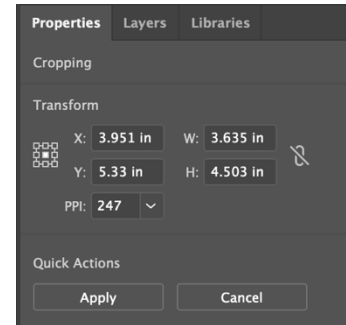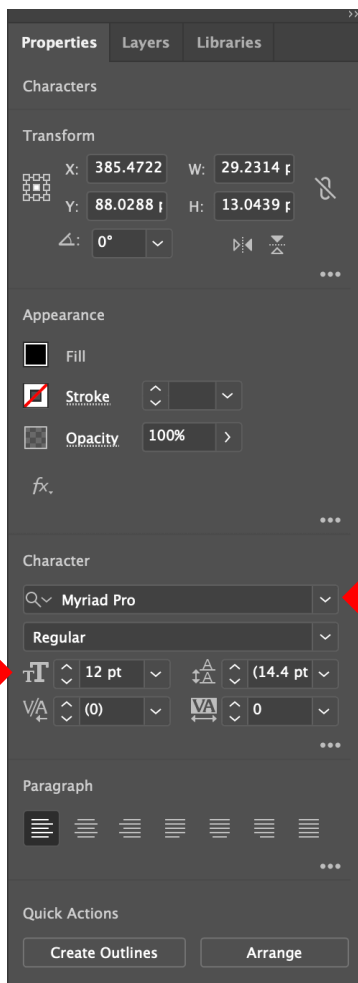

- If you would like to use the images as a reference you can lock them in the background by activating the object with the Selection Tool (V) and going to "Object" – "Lock" – "Lock Selection". This will make it so you cannot edit the locked selection unless you unlock it.
- To unlock something go to "Object" – "Unlock All"

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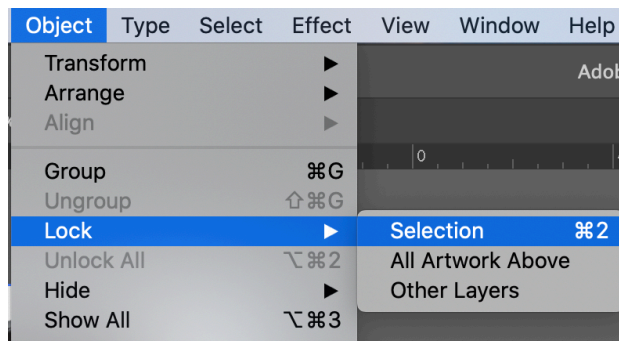
Text

Objective:

- Learn how to add a line of text, paragraph of text
- Learn how to change fonts and font size

- Activate the 'Text Tool' in the toolbar to the left. Simply click on the artboard to add some text. A small line of "place holder" text should appear and can be replaced.
  - The 'Text Tool' is great for titles and headlines
- To add a paragraph of text, select the 'Text Tool' and click and drag to make a text box. By clicking and dragging the text will wrap to fit within the box.
- With the text highlighted you can start typing to add your own text.
- To move and resize the text select the 'Selection Tool (V)' and edit it as you would a shape.
  - To keep the text dimensions the while using the 'Selection Tool' to resize press and hold the 'Shift Key'
 - You can also change the font and font size in the 'Properties Panel' to the far right of the document.
  - To change the color of the text double click the 'Fill Color' and apply color like you would to a shape

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Create and Edit Simple Shapes

Objective:

- Learn how to create and edit basic shapes using the shape tools

- When you draw shapes, Smart Guides ('View' – 'Smart Guides') help by showing the shape and size in a grey measurement label, snapping to other objects, and indicating when an ellipse is a perfect circle or when a rectangle is a perfect square with magenta lines.
- Most shapes are Live, which means you can edit them without switching tools after drawing. Different shapes have widgets for editing corner radius, number of sides and more.
- To show other shape tools, click and hold the 'Rectangle Tool (M)' in the Tools Panel
- When you click on a shape with the 'Selection Tool (V)' a 'Bounding Box' appears. This allows you to edit shapes.
- With the 'Selection Tool' active you can move a shape by clicking and dragging the circle/square in the center of the shape.
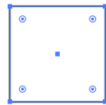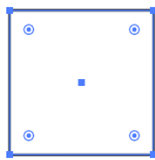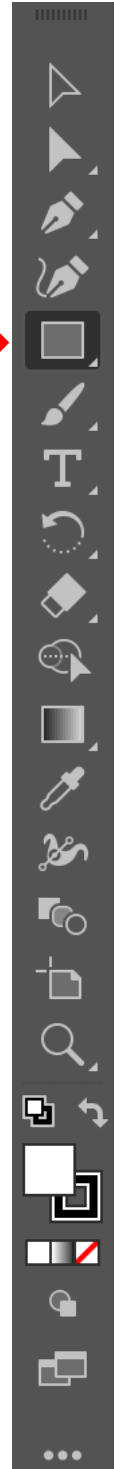
Click and drag the solid boxes in the corner to resize
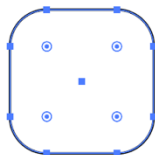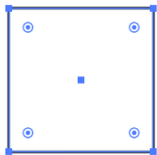
Click and drag the widget in the corners of the box toward the center to round the corners
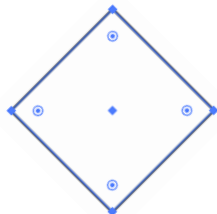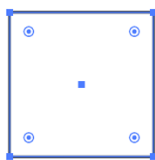
Hover your mouse near the corner of the square (with the 'Selection Tool' still active) once the mouse turns into a curved line with arrows on either end you can rotate the selected shape
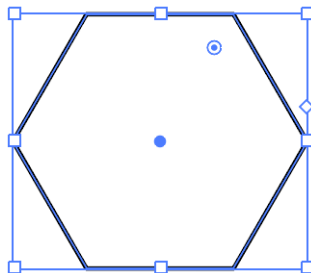
- Press and hold the 'Rectangle Tool' to choose from different shapes. If you would like a polygon that is not shown in the menu select the 'Polygon Tool'
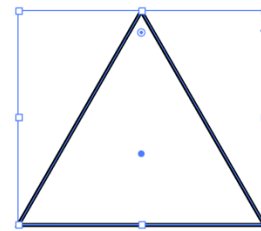 - HINTS:
    - The 'Polygon Tool' draws shapes from the center
    - Press and hold the shift key to straighten
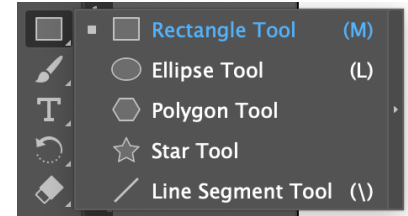
- The 'Polygon Tool' has similar widget features to the square. (IE: Moving, Rotating, Rounding Corners, and Resizing)

Press and drag the diamond up and down the right side of the bounding box to change the number of sides the polygon has.

- Another way you can make simple shapes is by the 'Shaper Tool (Shift + N)'. If you click and hold the 'Shape Boolean Tool' you can access the 'Shaper Tool'. This tool allows you to click and draw a basic shape. Once you let go of the mouse Illustrator will interpret your drawing turn it into a perfect polygon.
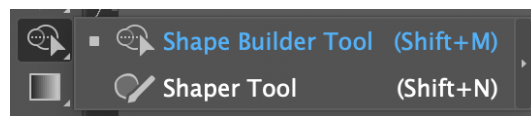
Create and Edit Lines and Arcs

Objective:

- Learn how to draw lines and paths with the 'Line Segment Tool (/)' 'Arc Tool' and the 'Pen Tool (P)'
- Learn how to edit and reshape lines and paths with the 'Selection Tool (V)' and the 'Direct Selection Tool (A)'

- A line in Illustrator is called a path which is composed of at least two anchor points, a start and an end anchor point.

- Draw straight lines using the 'Line Segment Tool (/)'. Select the 'Line Segment Tool (/)' by clicking and holding the 'Rectangle Tool' in the tools panel.
    - Hint:
        - Lines segments are "Live", which means you can edit the length, direction, and angle after drawing them without switching from the 'Line Segment Tool' to a selection tool.

- Rotate a line by moving the pointer off an end and dragging.

- Once you have selected the 'Line Segment Tool (/)' Press and drag. Once you release the mouse you will make the line. (The grey box following your cursor has the length and angle of the line.)

- To edit the direction and length of the line move your mouse to one of the ends (or anchor points). Click and drag and you will see you can change the direction of the line.
    - HINT:
        - Press and hold the shift key as you drag, and the line will be constrained to 45°
- To move the line, drag it from the center point.

- To change how thick the line is you will need to change what is call the 'Stroke' in the 'Properties Panel' on the right.
- You can also change the color of the line by double clicking the box to the left of 'Stroke'. (The next section will explain more about how to navigate the color options.)
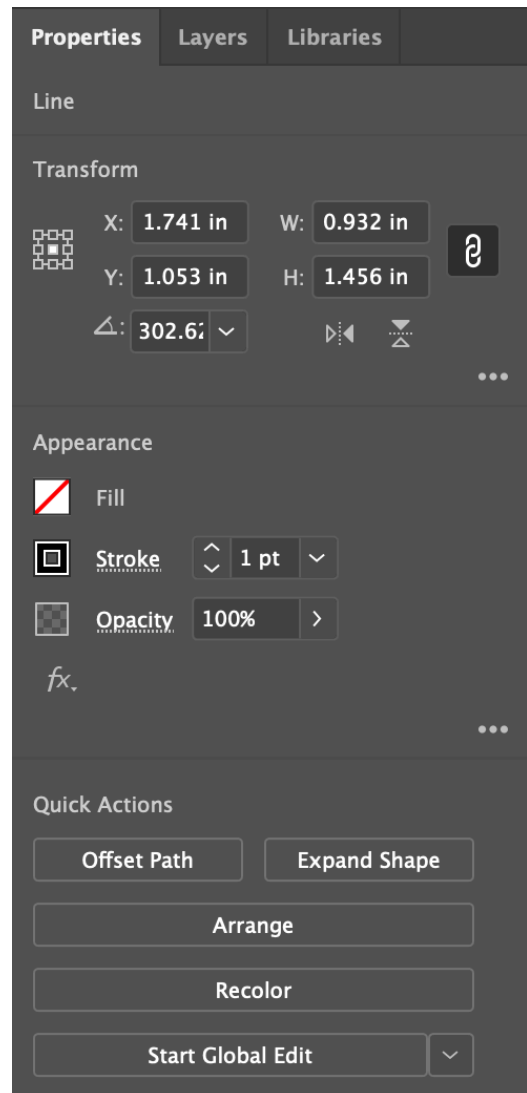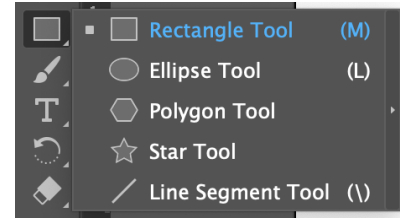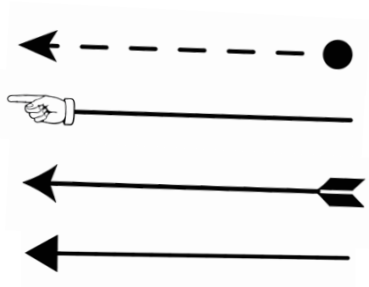
- To make the line segment an arrow, click the word 'Stroke' in the 'Properties Panel'.
- In the 'Stroke' dialog box you can change the weight of the line, direction of the arrow, and make a dashed line.
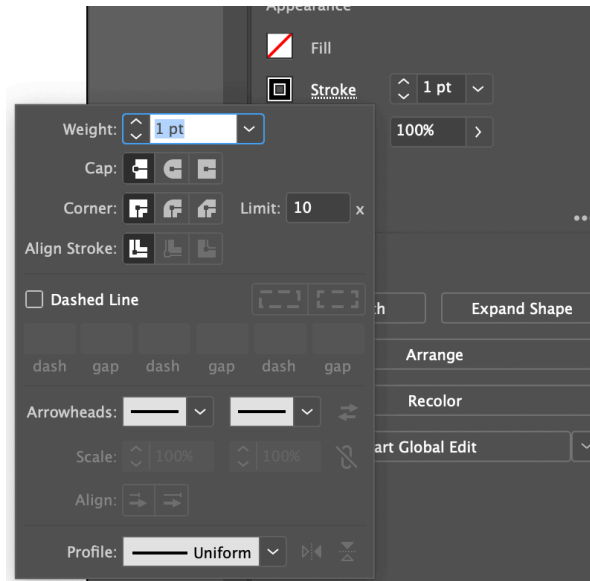
- You can also create an Arc by using the 'Arc Tool'. In the 'Essentials' workspace the 'Arc Tool' is under the 'Paintbrush Tool' menu.
    - If you cannot find it in your toolbar remember you can add tools to the toolbar by clicking the three dots at the bottom.
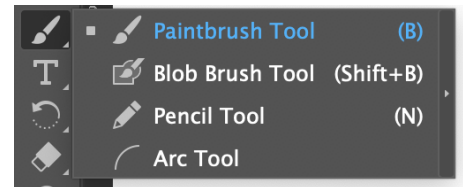
- Once you have an arc drawn it can be edited by using the 'Selection Tool (V)' or the 'Direct Selection Tool (A)'.
    - The 'Selection Tool (V)' allows you to move the arc and transform it like you would a shape through the selecting points in the bounding box and resizing it. If you hover on a corner of the arc's bounding box you can also rotate the object with the 'Selection Tool'.

    - The 'Direct Selection Tool (A)' allows you to edit the anchor points of an object. The anchor points are the start and end of the arc (a line or arc can have more than two anchor points). With the 'Direct Selection Tool' anchor points can be moved individually to change the shape of the arc. You can also change the curvature of the arc by moving the handles
        - Anchor points are square boxes and handles are the circles at the end of a line that comes off of the anchor point.

Anchor Point

Handle
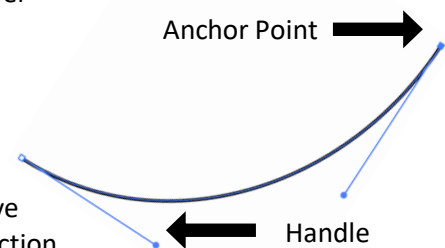
- Another way to create a closed shape with straight lines is to use the 'Pen Tool (P)'.

- To create a curved shape out of lines you will use the 'Curvature Tool (Shift + ')'.
  - Both tools allow you to draw a continuous line by clicking to create 'anchor points' you can make as many anchor points as you would like. Once you click the anchor point you started with the shape will close.
  - You can edit the line you create with the 'Direct Selection Tool' by moving anchor points and handles.
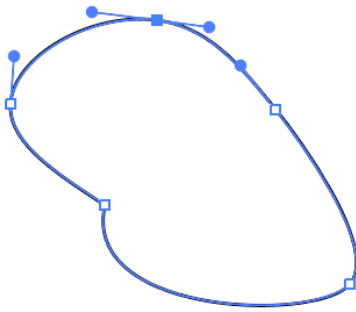
Here you can see a shape that was made with the 'Curvature Tool'. Once selected with the 'Direct Selection Tool' you can edit the line by moving anchor points and handles.

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Color

Objective:

- Learn how apply color to artwork using existing colors and colors you create.
- Learn how to save a color you create as a swatch for later use.
- Learn how to create, edit, and apply custom gradients.

- Activate the 'Selection Tool (V)' on the left and click to select a shape you have drawn.
- Shapes and text can have a 'Fill' and a 'Stroke' color.
- For the shape below, the pink color is the 'Fill' and the yellow color is the 'Stroke' or border. The 'Fill' or 'Stroke' can be a color, gradient, or pattern.
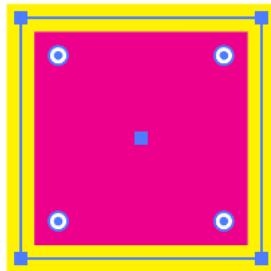
- You can change the 'Fill Color' and 'Stroke Color' in the 'Properties Panel' to the right of the document when you have an item selected. Clicking the square to the left of 'Fill' will open a box that has default saved colors called 'Swatches'.
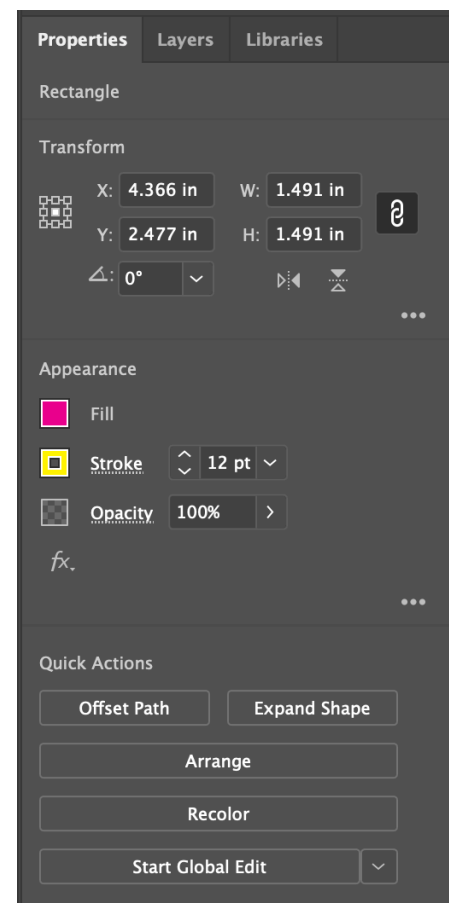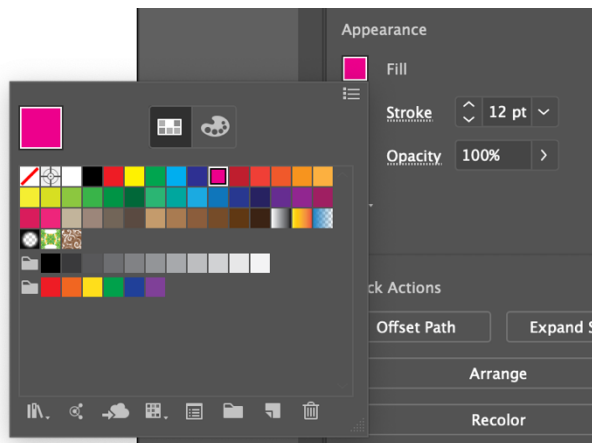
- There is also an option for mixing or creating your own colors by choosing a location of the color palette. (HINT: If you have the CMYK or RGB data you can input that into the color palette to get an exact color.)
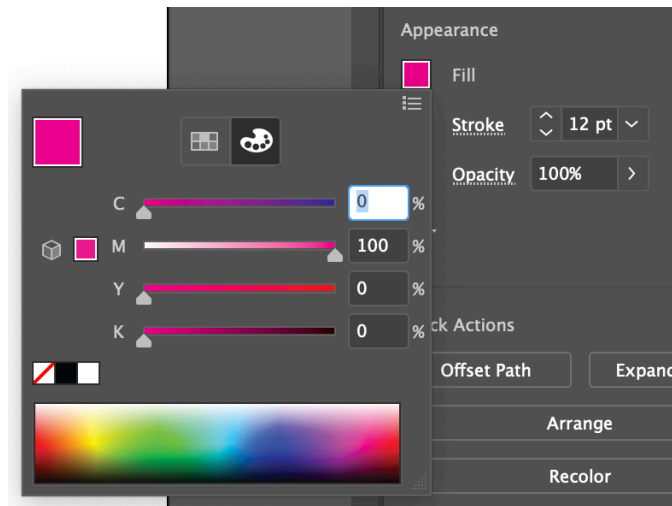
- There is also an option to use the 'Color Picker' to select a color. You can access this by double clicking the 'Stroke' or 'Fill' Box in the toolbar on the left. Once you do that the dialog box below will pop up. You can use the 'Color Picker' to create a custom color visually by entering color values, or by choosing from a library of colors.
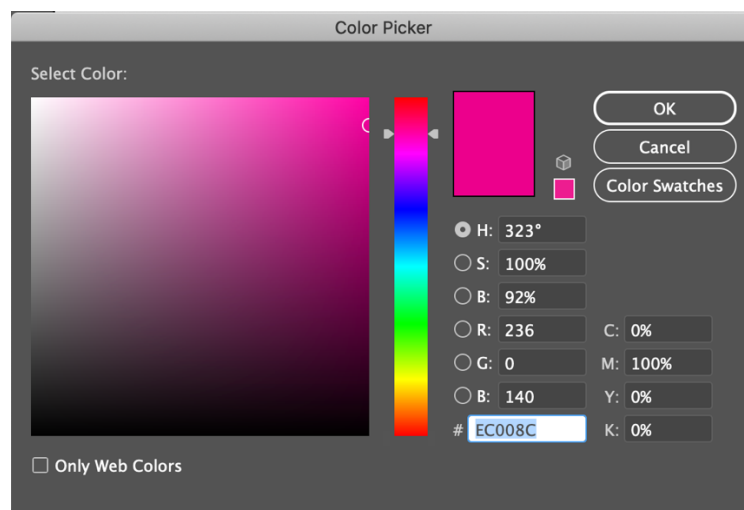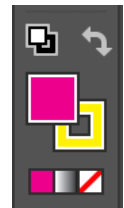
- Making a custom color in the 'Color Picker' does not mean the color is saved to apply to other objects. If you would like to apply the same formatting from one object to another you must either write down the CMYK or RGB data OR use the 'Eyedropper Tool (I)'.

- In order to make another object the same color you need to activate the 'Selection Tool' in the Toolbar and then select the object you would like to change the color of. Once the object is selected activate the 'Eyedropper Tool (I)' in the toolbar.

- Select the 'Gradient Tool (G)' or double click the small gradient box below the 'Fill' and 'Stroke' boxes in the toolbar to add a gradient to an object.
- Once you have selected to add a gradient a 'Gradient Panel' will show up on the artboard or in the panels on the right.
- You can edit the colors of the gradient by double clicking on the white or black circles in the panel.
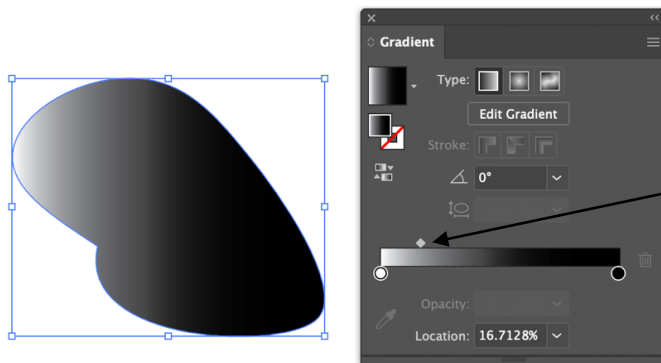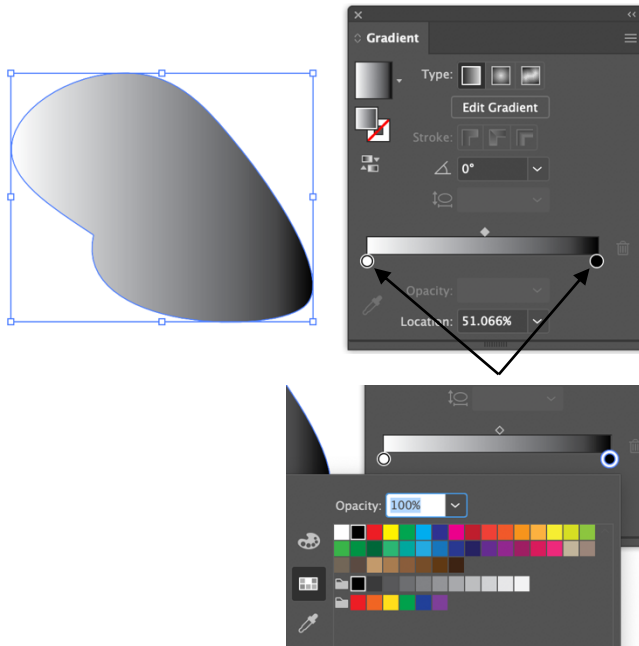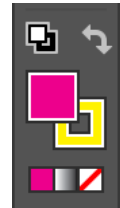
The diamond above the gradient bar allows you to change the center of the gradient in the object.

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Recolor Artwork

Objective:

- Learn how to access and change color palettes to apply to your images
- Learn how to recolor artwork in a few steps using Recolor Artwork.

- To access the 'Recolor Artwork' dialog box select 'Recolor' in the 'Properties' panel to the right.
- The dialog box will have all the colors in your document and will recommend a color palette based on the color selected.
- Below are color palettes based on the custom maroon color selected

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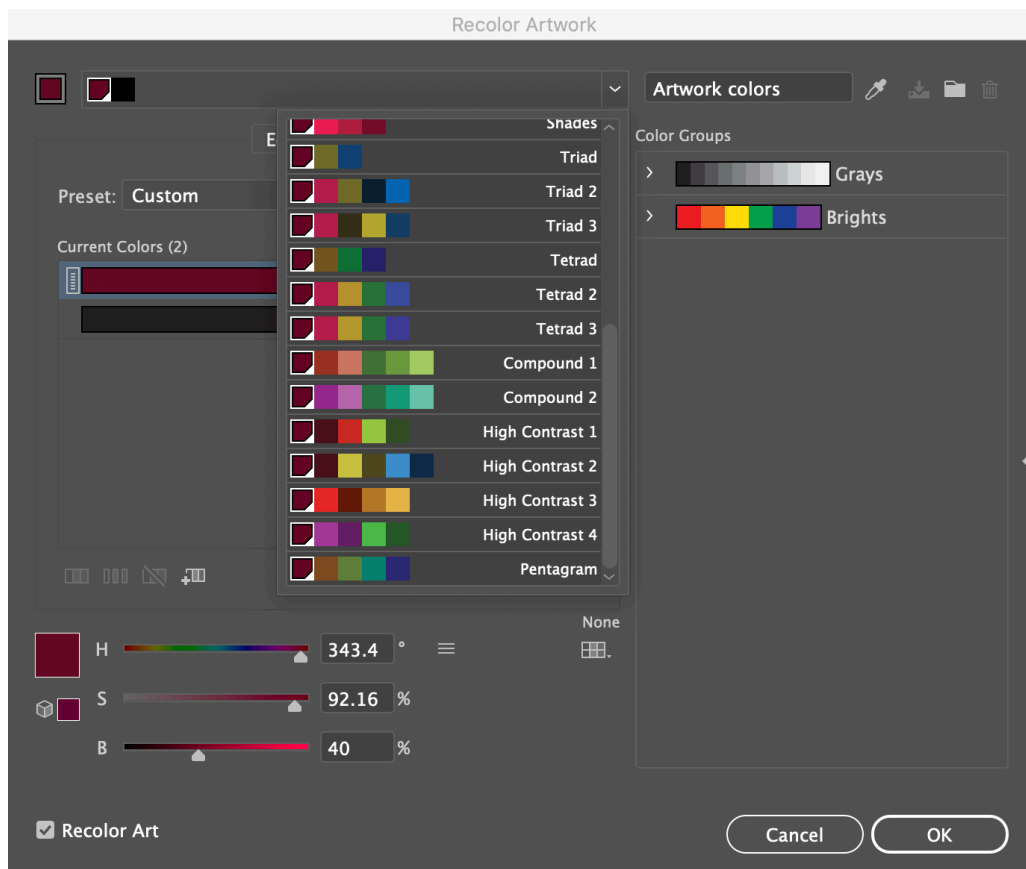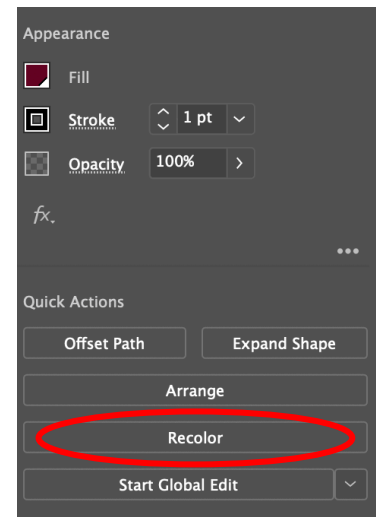
- Recoloring your graphic is a useful tool to know when you want to try different color palette, change the hue, or make the entire image lighter or darker.

    1. Select the artwork to recolor.
    2. Click the 'Recolor' button in the 'Properties Panel' to the right, to open the 'Recolor Artwork' dialog box.
    3. Select the 'Edit' tab to view colors in the selected artwork in a color wheel.
        o On the color wheel is colors the program picked up from the selected artwork.
    4. Drag individual colors in the color wheel to edit them.
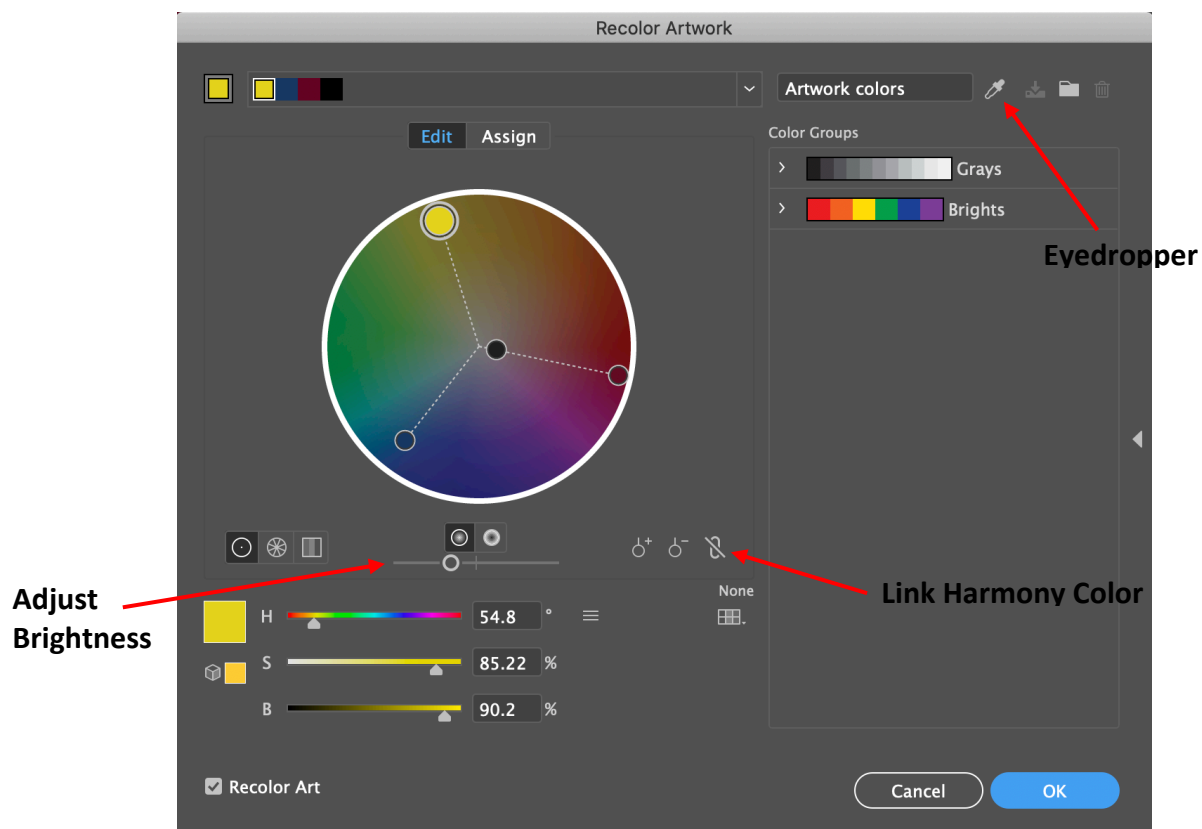
    5. Click the 'Eyedropper' to get the **original colors** from the artwork again, if needed.
    6. Click the 'Link Harmony Colors' button to edit all of the colors together. Drag individual colors in the color wheel to edit the colors together.
    7. Click 'OK' to change the color for the selected artwork.

- Instead of editing the colors separately, the 'Recolor Artwork' feature gives you a powerful way to edit a series of colors quickly and visually.

Saving/Exporting

Objective:

- Learn the different methods for saving/exporting your Illustrator projects

- **Saving:** "File" – "Save" OR "File" – "Save As"
    - "**.ai**" OR "Adobe Illustrator Artwork": preserves all data within document so that you can edit later. Can only be viewed if you have Adobe Illustrator.
    - "**.pdf**" OR "Portable Document Format": saves document that is not editable but can be opened by anyone with a free PDF reader.
    - "**.eps**" OR "Encapsulated Postscript": which is a vector format used for printing to postscript printers and image setters.
    - "**.ait**" OR "Adobe Illustrator Template": another way to save an Illustrator file that is good if you are making multiple iterations of a project.
    - "**.svg**" OR "Scalable Vector Graphics": used to save image for use on website and in print. Can be used in most places a .jpeg or other pixel-based images are used. (TIP: If .svg is not an acceptable file format you can export the image as a .jpeg explained later.)
    - "**.svgz**" OR "Compressed Scalable Vector Graphics": smaller file size of .svg
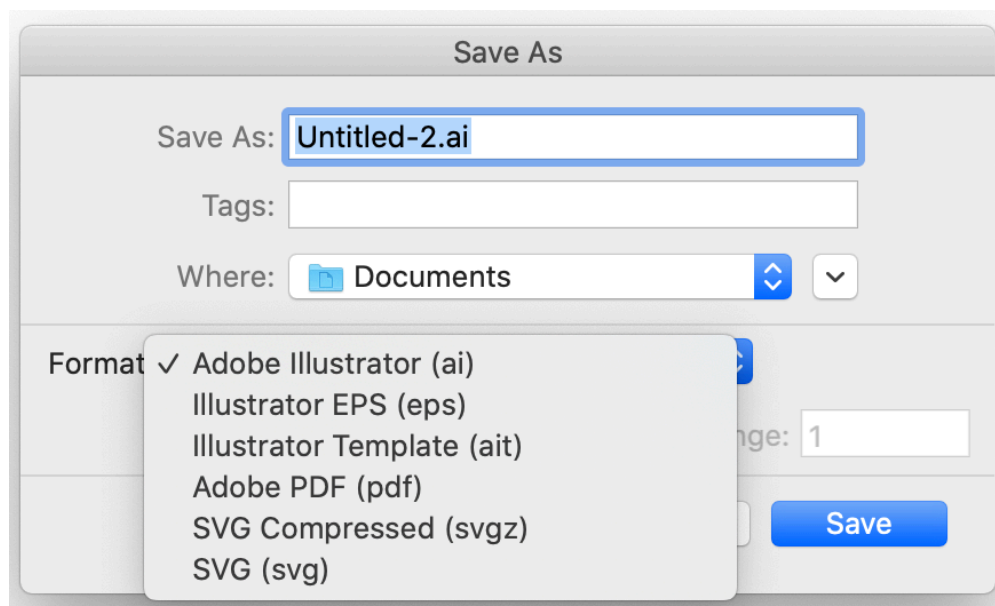
- "Illustrator Options": When you save a document for the first time or save a document as a copy a dialog box like the one below will pop up. This dialog box allows you to save the file as a format that will allow you to open it in earlier versions of Illustrator (anything pre-Creative Cloud) among other more advanced options. In many cases you can keep the default settings and click "OK".

- **Exporting:** "File" – "Export" – "Export As"
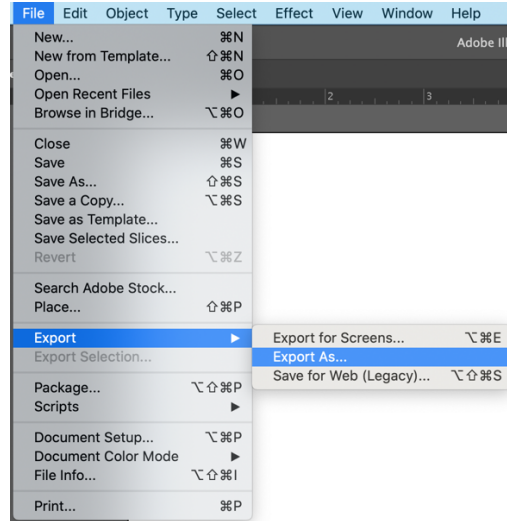
- If you have anything surrounding the Artboard that will be exported with your artwork.
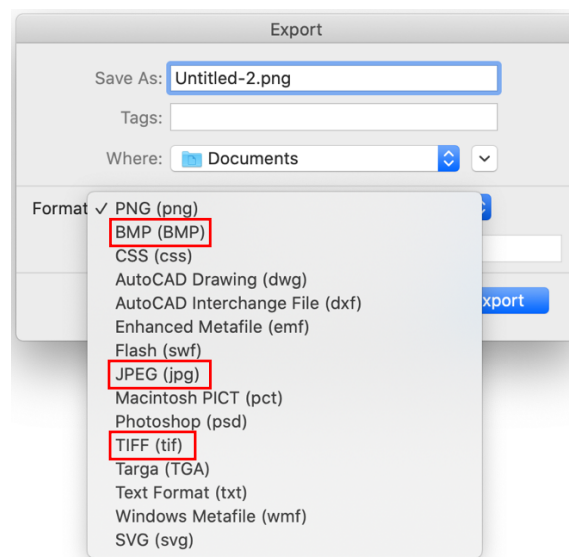
- Outlined below are explanations for the different file types and links to Adobe Illustrator's Help Page for further explanation on exporting that specific file type. Most likely you will use ".jpg", ".png", or ".tif" for use in other commonly used Microsoft/Adobe applications.
  - "**.png**" OR "Portable Network Graphic": Used for lossless compression and for display of images on the web. Unlike GIF, PNG supports 24-bit images and produces background transparency without jagged edges; however, some web browsers do not support PNG images. PNG preserves transparency in grayscale and RGB images. For more information, see PNG export options.
    https://helpx.adobe.com/illustrator/using/exporting-artwork.html#png_export_options

- "**.BMP**" OR "Bitmap": A standard Windows image format. You can specify a color model, resolution, and anti-alias setting for rasterizing the artwork, as well as a format (Windows or OS/2) and a bit depth to determine the total number of colors (or shades of gray) that the image can contain. For 4-bit and 8-bit images using Windows format, you can also specify RLE compression.

- "**.css**" OR "Cascading Style Sheet: used for HTML web design.

- "**.dwg**" OR "AutoCAD Drawing": the standard file format for saving vector graphics created in AutoCAD. See AutoCAD export options. https://helpx.adobe.com/illustrator/using/exporting-artwork.html#autocad_export_options

- "**.dxf**" OR "AutoCAD Interchange File": drawing interchange format for exporting AutoCAD drawings to or importing drawings from other applications. See AutoCAD export options. https://helpx.adobe.com/illustrator/using/exporting-artwork.html#autocad_export_options

- "**.emf**" OR "Enhanced Metafile": Widely used by Windows applications as an interchange format for exporting vector graphics data. Illustrator may rasterize some vector data when exporting artwork to EMF format.

- "**.swf**" OR "Flash": A vector-based graphics format for interactive, animated web graphics. You can export artwork to the Flash (SWF) format for use in web design, and view the artwork in any browser equipped with the Flash Player plug-in. For more information, see Flash export options. https://helpx.adobe.com/illustrator/using/exporting-artwork.html#flash_export_options

- "**.jpg**" OR "Joint Photographic Experts Group": Commonly used to save photographs. JPEG format retains all color information in an image but compresses file size by selectively discarding data. JPEG is a standard format for displaying images over the web. For more information, see JPEG export options. https://helpx.adobe.com/illustrator/using/exporting-artwork.html#jpeg_export_options

- "**.pct**" OR "Macintosh PICT": Used with Mac OS graphics and page-layout applications to transfer images between applications. PICT is especially effective at compressing images with large areas of solid color.

- "**.psd**" OR "Photoshop": The standard Photoshop format. If your artwork contains data that cannot be exported to Photoshop format, Illustrator preserves the appearance of the artwork by merging the layers in the document or by rasterizing the artwork. As a result, there may be times when layers, sublayers, compound shapes, and editable text are not preserved in the Photoshop file, even though you selected the appropriate export option. For more information, see Photoshop export options.

https://helpx.adobe.com/illustrator/using/exporting-artwork.html#photoshop_export_options

- o "**.tif**" OR "Tagged-Image File Format": Used to exchange files between applications and computer platforms. TIFF is a flexible bitmap image format supported by most paint, image-editing, and page-layout applications. Most desktop scanners can produce TIFF files. For more information, see TIFF export options.
  https://helpx.adobe.com/illustrator/using/exporting-artwork.html#tiff_export_options

- o "**.TGA**": Designed for use on systems that use the Truevision® video board. You can specify a color model, resolution, and anti-alias setting for rasterizing the artwork, as well as a bit depth to determine the total number of colors (or shades of gray) that the image can contain.

- o "**.txt**" OR "A Standard Text Document": Used to export text in an illustration to a text file.

- o "**.wmf**" OR "Windows Metafile": An intermediate exchange format for 16-bit Windows applications. WMF format is supported by almost all Windows drawing and layout programs. However, it has limited vector graphics support, and wherever possible, EMF format should be used in place of WMF format.

- o "**.svg**" OR "Scalable Vector Graphics": used to save image for use on website and in print. Can be used in most places a .jpeg or other pixel-based images are used

BONUS: Default Keyboard Shortcuts

DOCUMENT SHORTCUTS	WINDOWS	MAC
Undo	Ctrl + Z	Command + Z
Redo	Shift + Ctrl + Z	Shift + Command + Z
Cut	Ctrl + X	Command + X
Copy	Ctrl + C	Command + C
Paste	Ctrl + V	Command + V
Paste in Front	Ctrl + F	Command + F
Paste at Back	Ctrl + B	Command + B
Check Spelling	Ctrl + I	Command + I
Open the Keyboard Shortcuts Dialog Box	Alt + Shift + Ctrl + K	Option + Shift + Command + K
Place a File in the Document	Shift + Ctrl + P	Shift + Command + P
Save	Ctrl + S	Command + S
Save As	Shift + Ctrl + S	Shift + Command + S
Save a Copy of the Document	Alt + Ctrl + S	Option + Command + S

TOOL SHORTCUTS	WINDOWS	MAC
Selection Tool	V	V
Direct Selection Tool	A	A
Pen Tool	P	P
Paint Brush Tool	B	B
Add Anchor Point Tool	+ (Plus)	+ (Plus)
Delete Anchor Point Tool	- (Minus)	- (Minus)
Type Tool	T	T
Line Segment	\ (Backslash)	\ (Backslash)
Rectangle Tool	M	M
Shaper Tool	Shift + N	Shift + N
Ellipse Tool	L	L
Free Transform Tool	E	E
Eyedropper Tool	I	I
Zoom Tool	Z	Z
Hand Tool	H	H

VIEW ARTWORK SHORTCUTS	WINDOWS	MAC
Toggle Between Screen Modes: Normal Screen Mode, Full Screen Mode with the Menu Bar, and Full Screen Mode	F	F
Exit Full Screen Mode	Esc	Esc
Fit Artboard in Window	A	A
Hand Tool (when not in text-edit mode)	Press and hold the Spacebar	Press and hold the Spacebar
Hide Unselected Artwork	Ctrl + Alt + Shift + 3	Command + Option + Shift + 3
Show/Hide Artboard Rulers	Ctrl + R	Command + Option + R
Zoom In	Ctrl + =	Command + =
Zoom Out	Ctrl + -	Command + -
Hide Guides	Ctrl + ;	Command + ;
Lock Guides	Alt + Ctrl + ;	Option + Command + ;
Show/Hide Smart Guides	Ctrl + U	Command + U
Show Grid	Ctrl + '	Command + '

Export Keyboard Shortcut List as a Text Document

You can export the list of default and custom keyboard shortcuts for tool and menu commands in Illustrator as a text document.

1. "Edit" – "Keyboard Shortcuts"
2. Click "Export Text" on the lower-left corner of the Keyboard Shortcuts dialog box.
3. Navigate to the desire location to save the text file.
4. Click Save.