Infographics in Illustrator CC

<u>Background</u>

Information graphics or infographics are visual representations of information, data, or knowledge intended to present complex information quickly and clearly. By using graphics (photographs, illustrations, charts, and other media), infographics can be used to highlight patterns and trends.

This workshop introduces the skills and tools needed to design an infographic which communicates information in a visually accessible way. The emphasis of this workshop is on information clarity and legibility.

Required skills

The following skills are required before taking the series:

- General operating knowledge of a PC (Windows or Mac)
- Ability to use a keyboard and mouse
- Basic knowledge of editing spreadsheet data and charts

Helpful skills to have

- Basic or introductory familiarity with Illustrator or other Adobe software applications.

<u>Infographics in Illustrator CS6 Agenda</u>

- Using the Graph Tool
- Modifying graph properties
- Using the Direct Selection Tool
- Navigating and using the Appearance Panel
- Making, Saving, and Applying Graphic Styles
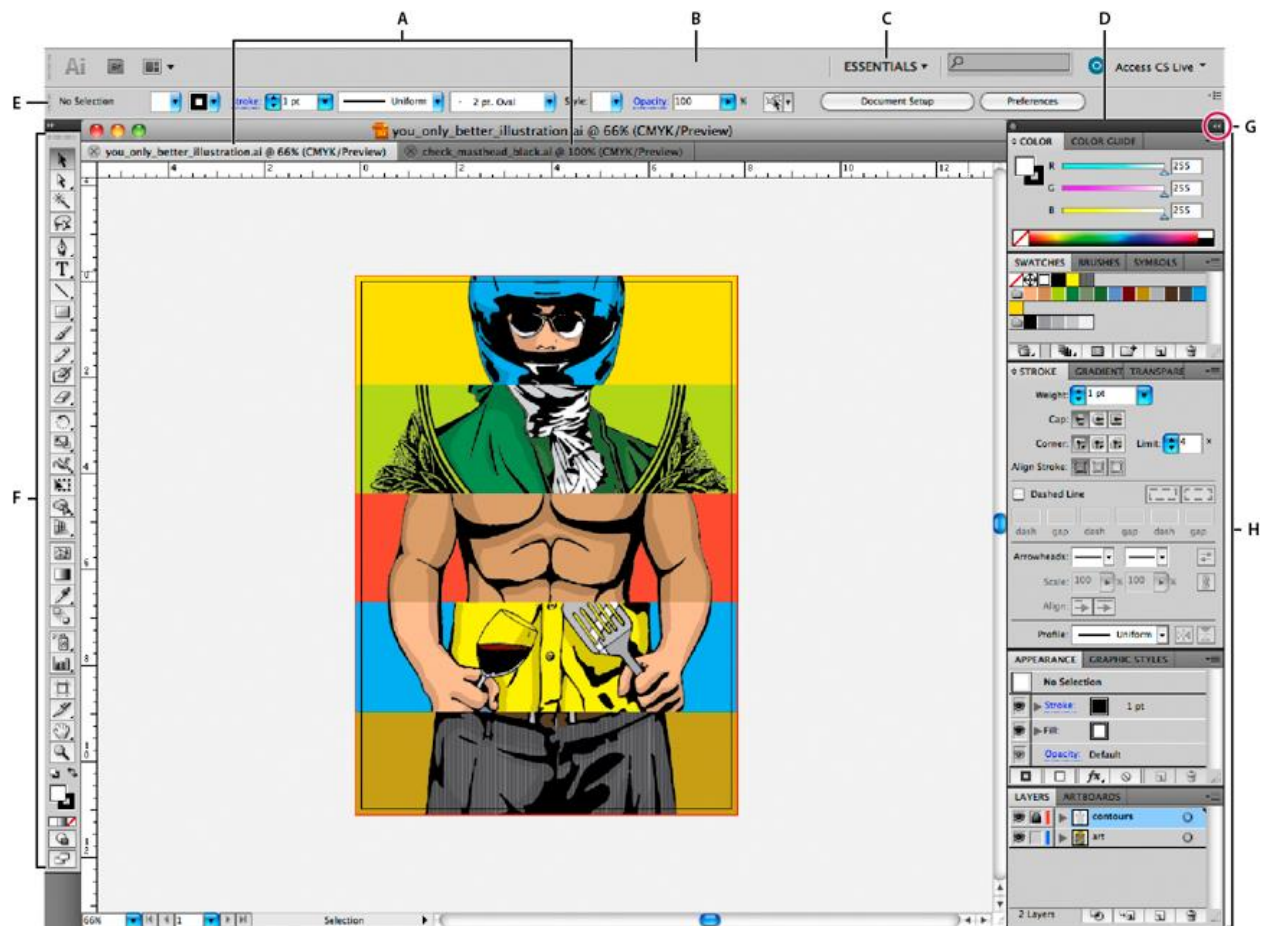- Saving, Exporting, and Print Settings

Workspace overview

Figure 1. Illustrator tool panes and options.

A. Tabbed Document windows

B. Application bar

C. Workspace switcher

D. Panel title bar

E. Control panel

F. Tools panel

G. Collapse To Icons button

H. Four panel groups in vertical dock

Before you begin: organization and structure

Designing an infographic is not the same as designing a website, flier, poster, or brochure. Creating an infographic is a challenge and requires a specific approach. Here are some things to consider before you begin your design:

- Take some time to consider the "story" of your design and sketch your ideas. Think about the colors that you want to use, the tone of your infographic, and what is the purpose of your data. Think about how you want to organize or "flow" your data. Do you want your infographic to be more organized vertically? Horizontally? How do you want to section your infographic? What kind of borders or shapes do I want to use?
- Tell a good story with structure: all effective infographics have a beginning, middle, and end. At the beginning of your infographic, introduce the problem or thesis of your research. Then, support ideas with data. Finally, end the infographic with a conclusion.
- Have a focal point in your design: an object that will grab the attention of your viewer. Usually, the focal point will center on the most important parts of your data.

Color recommendations

- Generally, infographics dominated by dark and neon colors are not as legible—neon on black is difficult to read, especially if there is a lot of data.
- Choose a color palette that doesn't overwhelm your viewer.
  - Use the Rule of Three: Choose three primary colors. The lightest color should be the background color, and the other two colors should be used to break up the sections. If you need to add other colors, use different shades of those three colors. This will keep your infographic cohesive.

Figure 2. Infographics are created for a wide range of topics.

Create and save a new document

IMPORTANT: It is always important to continually save your document(s). Sometimes the program might quit or freeze; therefore saving regularly will benefit you in the long run.

1. In the File Menu, select *File > New*.
2. (Or press CTRL+N on the keyboard if you are on a Windows PC, or CMD + S if you are on a Mac).
3. In the New Document window.
4. Select the appropriate Units.
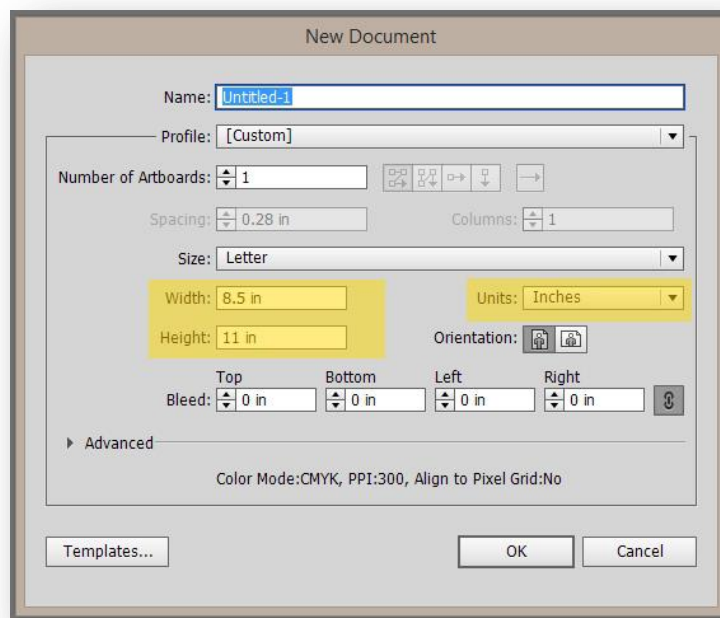5. Name your Infographic.
6. Select a Size.

Figure 3. Set your units to inches.

Modifying the Artboard

The default working area is referred to as the "Artboard." You can customize the Artboard to fit the parameters of your infographic. You can modify your Artboard at any time after it has been created. This will not affect the existing contents of your Artboard.

To modify your Artboard:

1. In the Control Panel, select the Document Setup option.
2. In the Document Setup window, select the Edit Artboards option.
3. You can input your desired height and width in the W and H fields of the control panel. Or, you can click and drag the crop marks of your Artboard.

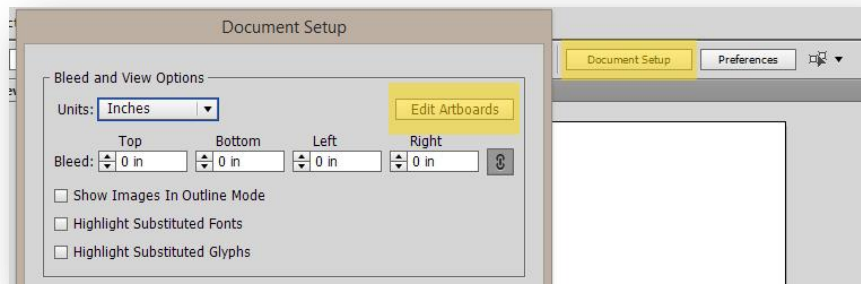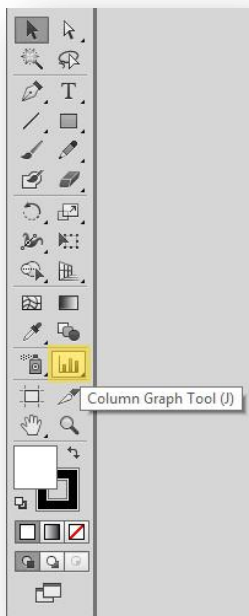4. Click on the Selection Tool to finalize your Artboard adjustment.

Figure 4. You can edit your artboard at anytime.

Activity: Create a new document and artboard using the appropriate units.

Using the Graph tool

Inserting a graph

1. With the Graph Tool selected, click and drag to your desired graph size on your Artboard.
2. In the open Graph Data.
   a. Enter your data into the open cells.
   b. If you have an Excel document, you can copy and paste your cells.
3. After you have entered your data, click on Apply in the Graph Data window. Your graph will now appear in your Artboard as a standard column graph.

Figure 5. The Column Graph Tool on the left tool bar.

Modifying data and graph properties

Once your graph is created, you can change your name, data sequence, and the number of categories and/or data. You can also change your graph type after it has been formed.

Modifying Your Data

1. With the Selection Tool selected, right click your graph, and select Data.
   a. You can edit your existing data in the Graph Data window.
   b. Click on Apply when you are finished.
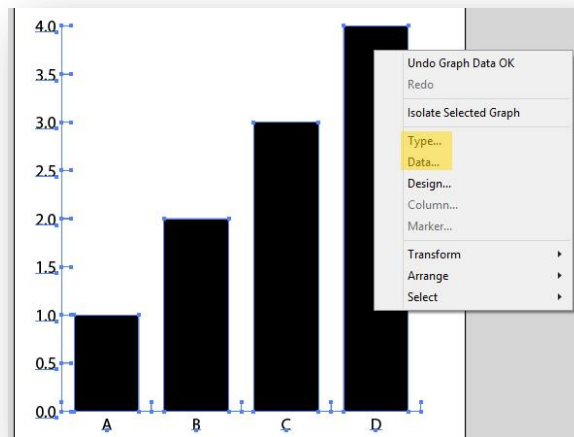   c. You can also select Object > Graph > Data in the Application Bar.

Figure 6. Right-click your grab to change its type and data.

Modifying Your Graph

1. With the Selection Tool selected, right click on your graph, and select Type.
2. In the Graph Type window, you can select one of the available graph options.
3. Under the Style, you can choose to add the following:
   a. Add Drop Shadow
   b. Add Legend Across Top
   c. Under the Type settings, you can also choose whether you want your y-axis on the "On Left Side," "On Right Side," "On Both Sides."
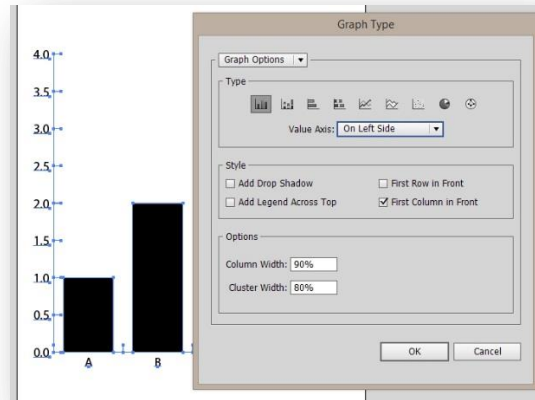
Figure 7. Choose among the various graph types.

Activity: Find a data set, input your data into Illustrator, and create a graph. Apply different graph types.

Resizing and transforming your graph

In order to modify your graph as a whole in your Artboard, you must use the Transform options available in the File Menu.

1. Select Object > Transform. The following options will be available:
   a. Move
   b. Rotate
      i. Check the Preview option.
      ii. Enter the desired degree of rotation.
   c. Reflect
      i. Select the direction which you want to reflect your graph: Horizontal / Vertical.
      ii. You can also click Copy to retain your original graph.
   d. Scale
      i. Input a percentage to scale your document by.
         1. Select Uniform if you want to scale and maintain the aspect ratio of your graph.
         2. Select Non-Uniform to scale only a single axis or both axis by different amounts.
         3. Selecting Scale Strokes & Effects will apply the transformation to any attached effects or shapes.
   e. Shear
      i. Select your desired Shear Angle.
      ii. You can shear your graph axis independently under the Axis options.
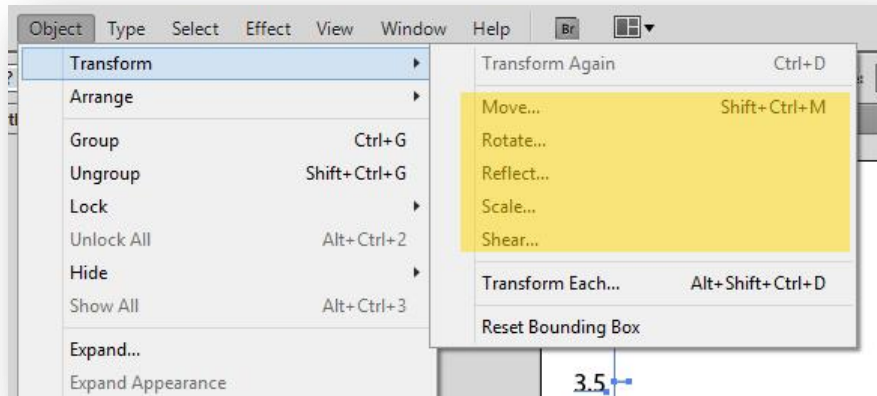
Figure 8. Transform options allow you to change the apperance of your graph as a whole.

Direct Selection tool

Using the Direct Selection tool is critical in designing and editing your infographic. It allows you to select and modify individual objects or components within your graph. In addition to allowing you to move an object, the Direct Selection tool allows you to modify individual paths and anchor points.
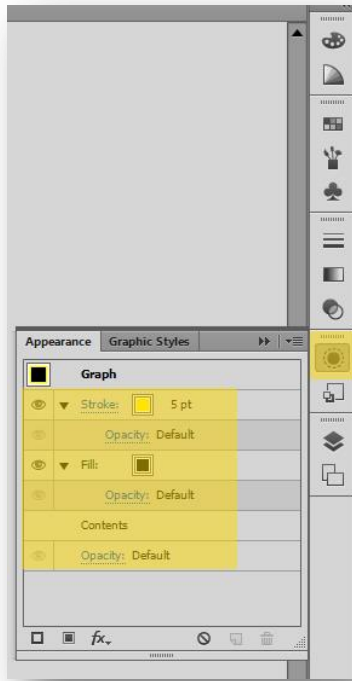
Selecting objects and anchor points

1. To select an individual component of your graph (i.e. an axis, a label, a bar or column, etc.), select the Direct Selection tool in the toolbar. Then click on your desired component.
2. To modify the anchor point of an object, click on a shape or object with the Direct Selection tool. With the component selected, click and drag your chosen anchor point to a new position to modify the shape of that component.
3. You can also move your object by clicking on it with the Direct Seletion tool and dragging the object through your document or Artboard.

Figure 9. Anchor points are often in the corner of your shapes.

Activity: Resize and transform your graph using the various transform options.

Appearance panel

The Appearance panel will allow you to manage complex shapes including text, groups of objects, photographs, charts, and other illustrations. Any object that "appears" on your Artboard can be modified through the Appearance panel.

The most common options used in the Appearance panel are stroke, fill, and opacity. Press Shift + F6 on your keyboard to access the Appearance panel. Or, select the Appearance panel icon from the right column of toolbars.

Figure 10. Appearnce panel can found in the left tool panes.

Fill

1. Click on the Appearance panel icon in the column of toolbars as indicated on the far right of the Illustrator workspace.
2. Click on the fill box (next to "Fill") and select from the available colors. You can also hold shift to access the expanded color options.
3. Click on the arrow next to "Fill" to modify the opacity of your fill color.

Figure 11. Change the fill color of any object or shape.

Stroke

1. Click on the Appearance panel icon in the toolbars as indicated on the far right of the Illustrator workspace.
2. Click on the stroke box (next to "Stroke") and select your stroke color and also your stroke width. Your stroke width determines the thickness of your object's outline.
3. Click on the arrow next to "Stroke" to modify the opacity of your stroke outline.

Hiding and showing graph components

1. Select your object with the Direct Selection tool.
   a. To hide an axis, in the Control Panel or Tools Panel, set the Stroke to invisible.
   b. To hide a number or label, in the Control Panel or Tools Panel, set the Fill to invisible.
   c. To hide a bar, column, or section of your pie chart, in the Control Panel or Tools Panel, set both the Fill and the Stroke to invisible.

Opacity

1. You can modify the overall opacity for your object by double clicking the opacity option and inputting your desired percentage of transparency.

Activity: Change the fill and stroke of different graph components. Use the stroke option to hide different graph components.

Effects

There are numerous special effects that you can apply to your object. These include, but are not limited to, effects such as blurring your object, simulating a watercolor, adding film grain, or artistic brush strokes.

1. In the Appearance panel, find and select the "fx" icon. This will bring up the various effects option (both from Illustrator and Photoshop).
2. Each effect will have its own separate set of properties that you can modify.
   a. To view a preview of all the effects, select the "Effect Gallery."
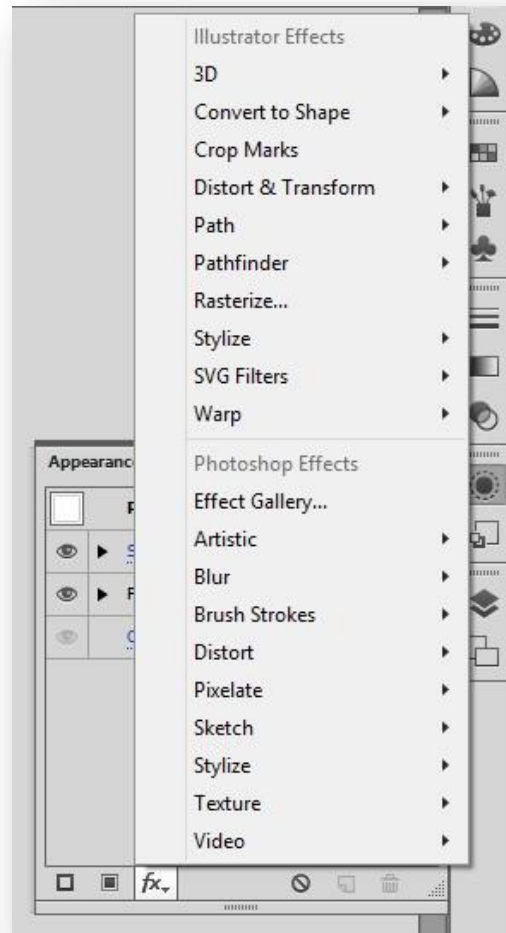   b. The effect settings can be modified at any time provided that they were applied through the Appearance panel.

Figure 12. Nermous filter effects are available.

Activity: Browse through the filter gallery. Apply various filters to your graph. Explore the various filter options.

Adding/Changing your stack

The stack refers to the order of your various fills, strokes, and effect paths.

1. In the Appearance panel, you can add a new fill, stroke, or effects path at any time you choose.
2. You can clear, duplicate, and delete paths by selecting the indicated icons in the Appearance panel.
3. Only paths that are at the top of the stack will be visible. To reorder your stack, click, drag, and place your chosen stroke, fill, or effect to the appropriate level.

<u>Graphic styles</u>

Styles allow you to create templates or guides from existing stacks (in the Appearance panel) or objects. Using Graphic Styles will allow to replicate any illustration effects or color patterns quickly and efficiently.
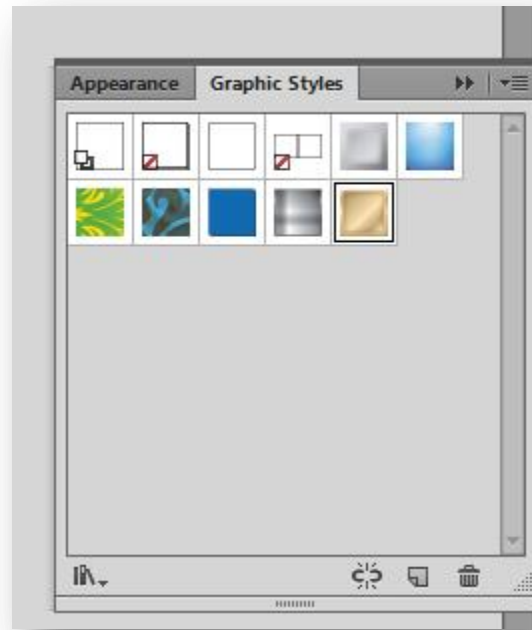

Figure 13

1. Click on the Graphic Styles icon in the toolbars as indicated on the far right of the Illustrator workspace (below the Appearance icon). This will open the Graphic Styles panel.
2. To save a Graphic Style, select an object with either the Selection or Direct Selection tool.
3. With your object selected and the Graphic Styles open, click the New Graphic Style icon to save your Graphic Style.
4. To apply a Graphic Style, select your object with the Selection or Direct selection, then select your chosen Graphic Style. You can switch between different Graphic Styles at any time.
    a. There are also various preset Graphic Styles that you can access through Graphic Styles Libraries Menu by clicking on the bottom left icon of the Graphic Styles panel.

> **Activity:** Create and save your custom graphic style. Apply that graphic style to other objects. Or shapes.

Importing images

You can easily import images during any phase of your project. To do so, perform the following:

1. In the file menu, select File > Place.
2. Locate and select the image file you wish to import.
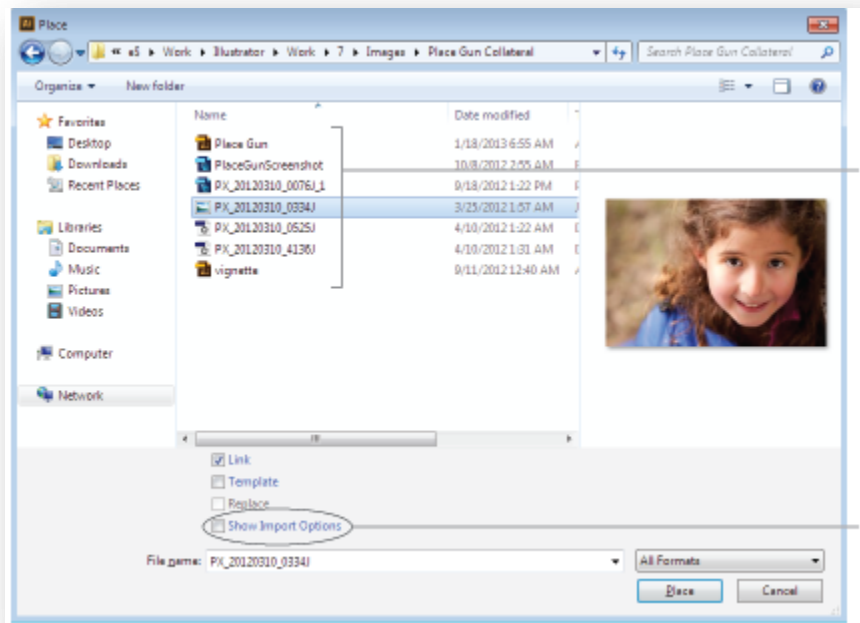3. Your image will now be place in the center of your Artboard.

Figure 14. Placing (or importing) an image onto your artborad.

Modifying your image (Transform options)

Unlike Photoshop, Illustrator is not capable of performing complex editing on your images. However, you will be able to apply all of the standard transform options:

- Move
- Rotate
- Reflect
- Scale
- Shear

Object alignment

You use the Align panel (Window > Align) and the align options in the Control panel to align or distribute selected objects along the axis you specify. The Align options are visible in the Control panel when an object is selected. If they do not appear, choose Align from the Control panel menu.

1. To align objects, select the objects you wish to align by clicking on clicking on your first object, holding SHIFT on the keyboard, and then clicking on the second shape. A bounding box will appear around both objects.
2. When both objects are selected, alignment tool options will appear in the top tool bar.
3. Choose from the following alignment options:
    a.

Grouping/Ungrouping objects

Saving, exporting, and print settings

Saving your infographic in Illustrator is a simple and straightforward process. The key decision is in choosing an appropriate file format.

- The following file formats can be accessed through the File > Save (or Save As) options in the File Menu.

Adobe Illustrator (*.AI)	Illustrator project file. Choose this file format as your original working file. In order to continue editing your infographic after you have closed Illustrator, you must save in this file format.
Adobe PDF (*.PDF)	Portable Document Format used to present a fixed non-editable document. Choose this file format if you have finalized your infographic and are seeking to print, publish, or share it.
Illustrator Template (*.AIT)	Illustrator template file. Choose this file format if you seek to use your infographic as a template for future projects.

- The following file formats can be accessed through the File > Export option in the File Menu.

JPEG (*.JPG)	Most common file format for digital photography and illustrations. Choose this file format if you want to email, share, or view your infographic as how it would appear online.
PNG (*.PNG)	Similar to JPEG, though used for higher quality images at the expense of overall file size and load times.
TIFF (*.TIFF)	Most popular file format for graphic designers, artist, and photographers. Used primarily for archiving or large format

	poster printing. Retains the most quality though also produces the largest file size.

It is critical that you save and retain your *.AI file as your original master file.

1. Save your infographic as an Adobe Illustrator file.
2. Save or export your infographic in one of the above mentioned file formats.