

Unit 9 : Adobe Illustrator

This unit is about PageMaker 6.5; a page composition software program that automates all the steps in developing a printed document. Composition is the process of laying out text and graphics-typography, lines, boxes, pictures, drawings, and colors in a page. PageMaker is considered by many industry experts, and by many users, to be one of the most functional, expert systems available for the design and composition of documents.

Lesson 1 : Introduction to Adobe Illustrator

Introduction

Most common practices of Adobe Illustrator is drawing, transforming and managing of Image objects, layers and shapes. It provides a broad foundation of essential Graphic design skills. It is the perfect way to learn Graphic design if you are just starting out with the software, upgrading from a proper version, or if you have never received formal training-even if you have been using Illustrator for years. This Unit also describe about various drawing, transforming and managing of Image objects, layers and shapes tools those are used to drawing, transforming and managing Image objects, layers and shapes. This Unit of course covers lets you create artwork for a variety of uses. Illustrator's drawing tools let you take advantage of many ways to control artwork in your designs.

1.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Creating new document using shape tools.
- ◆ Identify differences between RGB and CMYK Color Modes.
- ◆ Saving and exporting files using tool box.

1.2 Adobe Illustrator

Adobe Illustrator is a vector graphics editor developed and marketed by Adobe Systems. The latest version, Illustrator CC, is the seventeenth generation in the product line. It provides sophisticated tracing and text manipulation capabilities as well as color separations. Illustrator was originally developed for the Mac in 1987 and, up until Version 7.0, which was introduced in 1997.

Adobe Illustrator is a vector graphics editor developed and marketed by Adobe Systems.

1.3 System requirements

Before starting the Illustrator, make sure that your computer is equipped for running Adobe Illustrator, which you must purchase separately. The minimum system requirements for your computer to effectively use the software are listed on the following page.

1.3.1 System requirements for Adobe Illustrator

- Intel Pentium 4 or AMD Athlon 64 processor
- Microsoft Windows XP with Service Pack 3 or Windows 7 with Service Pack 1
- 1GB of RAM for 32 bit; 2GB of RAM for 64 bit
- 2GB hard-disk space for installation; additional free space required during installation
- 1024 × 768 display (1280 × 800 recommended) with 16-bit video card Broadband Internet connection required for software activation and access to online services.

1.4 Starting Adobe Illustrator for Windows

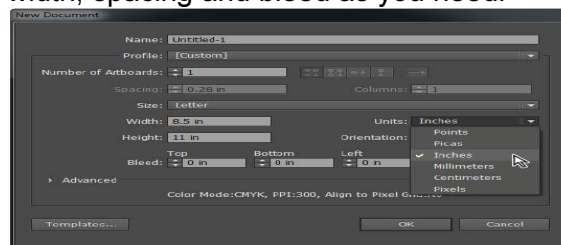
Step 1. Choose Start > All Programs > Adobe Illustrator. If you have the Creative Suite installed, you may have to select Adobe Illustrator from within the Creative Suite folder.

Step 2. Close the Welcome Screen when it appears. You are now ready to use Adobe Illustrator.

1.5 Create new Documents using Shape Tools

Step 1. Choose File > New, or use the keyboard shortcut Ctrl+N. The New Document dialog box appears.

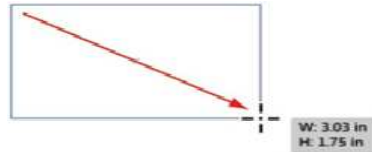
Step 2. Set name, Profile name; and Inches from the Units drop-down menu, when you change the units to inches. Set Height and width, spacing and bleed as you need.



Specify the settings of your new Illustrator document.

Step 3. Then Press OK. A new blank document appears.

Step 4. Select the Rectangle tool. Click and drag anywhere on the art board to determine the placement and size of the rectangle.



Click and drag from the upper-left corner to the lower-right corner.

Step 5. Choose File > Save As to save this file. The Save As dialog box appears.

Step 6. Type File name to text field; then press Save.

Step 7. Press OK when Illustrator Options dialog box appears.

1.6 Document Color Modes

You can change your preferred color mode in Adobe Illustrator. This allows you to create for print or web with the best color model. Every time you create a new file, you choose a profile. This profile determines, among other things, in which color mode to create your document. Typically, anything related to Web, mobile, or video is in RGB mode, and the print profile is in CMYK. You can also simply choose Basic CMYK or Basic RGB.

1.6.1 RGB Color Mode

RGB is the color scheme that is associated with electronic displays, such as CRT, LCD monitors, digital cameras and scanners. It is an additive type of color mode that combines the primary colors, red, green and blue, in various degrees to create a variety of different colors. When all three of the colors are combined and displayed to their full extent, the result is a pure white. When all three colors are combined to the lowest degree, or value, the result is black.

1.6.2 CMYK Color Mode

Printers print color onto paper using the CMYK color mode only. This is a four color mode that utilizes the colors cyan, magenta, yellow and black in various amounts to create all of the necessary colors when printing images. It is a subtractive process, which means that each additional unique color means more light is removed, or absorbed, to create colors. When the first three colors are added together, the result is not pure black, but rather a very dark brown.

1.6.3 Differences between RGB and CMYK Color Modes

When a user generates graphics on a computer for printing, or wishes to print images from a digital camera, it is a common mistake to assume that the colors seen on the screen will look the same in print. As a result of this mistake, files for printing are often erroneously sent in the Red-Green-Blue (RGB) format for printing. The issue lies in the fact that the computer screen and many

photo editing programs show colors in RGB mode, while images are printed on paper in Cyan-Magenta-Yellow-Black (CMYK) format. Sometimes the conversion from RGB to CMYK works without any problems arising, and a printout will look identical to what shows up on the computer. In other cases, there will be noticeable differences between the shades of color. The key to avoiding this potential problem is to convert all graphics to CMYK format during the layout design phase.

1.7 Color Management

Managing color has been a very time consuming and costly process in the printing, prepress, and film industries. The video industry has started to notice the need for color management as well. This has led to several years of intense discussions on color management solutions. In response to these discussions, the International Color Consortium (ICC) created a standard which attempts to serve as a cross-platform device profile format to be used to characterize color devices. After a discussion of current practices in industry, this standard is described along with a discussion of the major limitations of color management today.

1.8 Color Space Conversion

The color space conversions are fundamental to color management. There is two questions. First, what is the best color displayable on the output device to use to represent the color from the input device? This is not always a straightforward decision if the input device can display colors that the output device cannot. Second, what are the calculations required to map colors from the input space to the output space.

1.9 Art Boards

The art board represents the printable page containing your artwork. It's bounded by solid lines and can be enlarged or reduced to accommodate larger or smaller artwork. The default art board size is 8.5 inches wide by 11 inches tall or almost 19 feet by 19 feet.

1.9.1 Creating New Art Boards

Step 1. Press the New Art board button. Art board dialog box appear. Select New Art board.



Step 2. If you delete Art boards, then click Delete Art boards. The new art board is deleted, but the artwork is still positioned in the scratch area of the document.

Step 3. Choose File >Convert to return to the last saved version of this file. When asked if you want to convert to the saved version of the document, click Convert.

1.10 Saving Files

There are several ways to save files.

- The Save command saves the file with its current name, location, and file format.
- The Save As command lets you save an alternate version of the file with a different name, location, or file format.
- The Save a Copy command saves an identical copy of the file, with the word copy added to the file name
- When saving a file created in Adobe Illustrator the format chosen has real consequences. If you need a file format not listed in the regular Save As dialog box, choose File Export to see additional choices.

1.11 Exporting Files

Exporting files means transporting files. You can export your files to one of the formats listed below but using the native ensures that the file will be editable; it also ensures that any transparency is retained, even if you use the file in another Creative Suite application. To use an Adobe Illustrator file in another application, you often need to export it in a format that another application recognizes as a valid.



ACTIVITY

1.12 State whether the following statements are true or false.

1. 2GB of RAM for 64 bit is required for windows.
2. Use the keyboard shortcut Ctrl+N (Windows) to open New Document dialog box.
3. Creative Suite, is the best way to save a file as a native Illustrator a file.
4. 1024 × 768 display with 16-bit video card.

1.13 Multiple Choice questions

a. How many are the standards defined of color management in printing Industry?

- i) 2
- ii) 4
- iii) 6
- iv) 8

b. Which is the selecting option used to create a custom art board.

- i) Brush tool
- ii) Lasso tool
- iii) Art board tool
- iv) Magic wand tool

c. Which is the default art board?

- i) 8.5 x 11
- ii) 8.5 x 12
- iii) 9.5 x 11
- iv) 9.5 x 12

1.14 Analytical questions.

1. What do you mean by Illustrator and Art board?
2. What do you mean by system requirements?
3. Describe about saving and exporting files.
4. Discuss about color management in various industry.

Lesson 2 : Basic Tools

2.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Identifying various tool boxes.
- ◆ Customizing keyboard shortcut and workspace.
- ◆ Setting preference and Navigating documents.

2.1 Tools Box

A box which is containing shortcut tools to using easy drawing, editing, painting and coloring images.

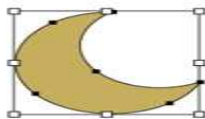
2.1.1 Using Tools Box

The Illustrator has several tools. To select it, mouse button down on a tool, then drag mouse over to the tool, and release the mouse button. You can also "tear off" parts of the tool bar so they become stand alone palettes with all the tools in that set visible. First select the object, and then perform the manipulation or transformation you wish. If you want to manipulate the entire object, and not just part of it, make sure all the points on the object are solid.

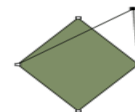
2.1.2 Selection tool Box

The tool box those are used to selecting various levels, shapes and layers etc are called selecting tool box.

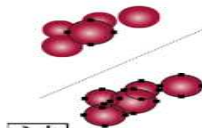
Illustrator provides the following selection tools



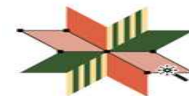
The Selection tool (V) selects entire objects.



The Direct Selection tool (A) selects points or path segments within objects.



The Group Selection tool selects objects and groups within groups.

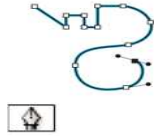


The Magic Wand tool (Y) selects objects with similar attributes.

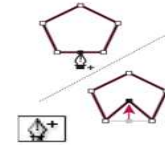
2.1.3 Drawing tool Box

The tool box those are used to drawing various levels, shapes and layers etc are called drawing tool box.

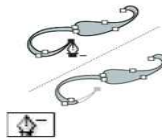
Illustrator provides the following drawing tools



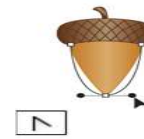
The Pen tool (P) draws straight and curved lines to create objects.



The Add Anchor Point tool (+) adds anchor points to paths.



The Delete Anchor Point tool (-) deletes anchor points from paths.



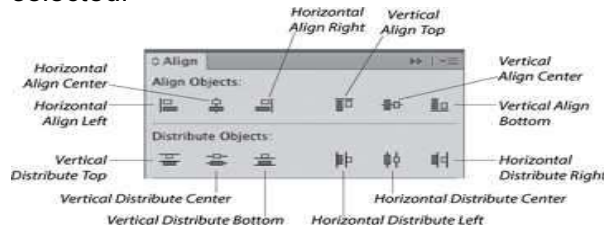
The Convert Anchor Point tool (Shift + C) changes smooth points to corner points and vice versa.

2.2 Using Tools panels

Various types of tools panels are used in adobe Illustrator. They are describing bellow

2.2.1 Align panel

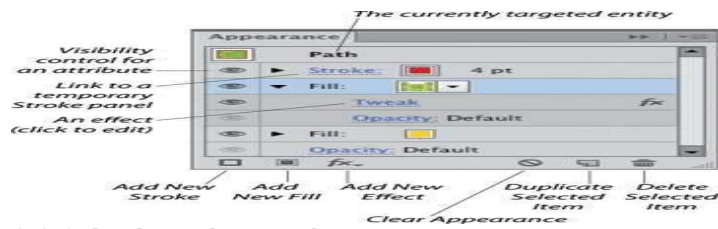
The buttons distribute objects along their centers or along their top, left, right, or bottom edges. Objects can be aligned to a selection, an art board, or a key object. Buttons in the lower part of the panel redistribute the spacing among three or more objects. This panel can also be used to align anchor points. Align buttons also appear on the Control panel when two or more objects are selected.



2.2.2 Appearance panel

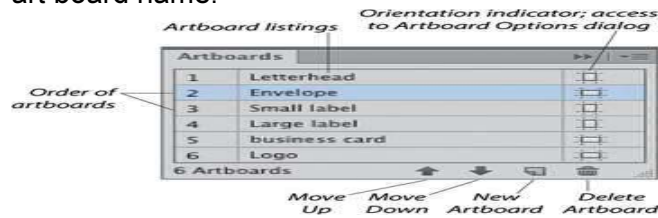
The Appearance panel lists the specific appearance attributes and settings for whichever layer, group, or object is currently targeted on the Layers panel. You can use the panel to add extra fill or

stroke attributes, edit or remove attributes, apply and edit effects, and edit individual attributes within an applied graphic style.



2.2.3 Art boards panel

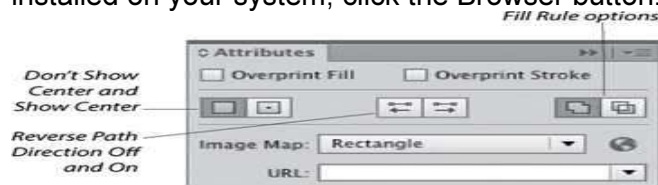
In addition to listing all the art boards in the current document, the Art boards panel lets you display, create, rename, and duplicate art boards; change their order; rearrange them in the document; choose options for them; change their orientation; and delete them. The Art board Options dialog opens when you double-click the art board orientation icon, which is located to the right of the art board name.



2.2.4 Attributes panel

The Attributes panel lets you choose overprint options for an object, show or hide an object's center point, switch the fill between color and transparency in a compound path, or change an object's fill rule.

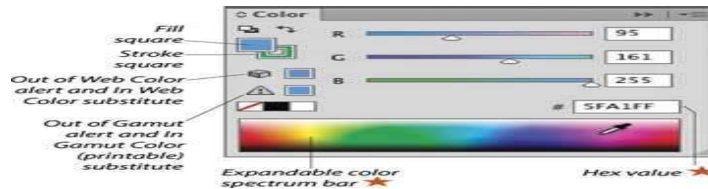
You can also use this panel to create a hotspot for Web output. Assign an image map shape and a URL to a selected object, and then to verify the URL in the Web browser that is currently installed on your system, click the Browser button.



2.2.5 Color panel

Colors are applied to an object's fill or stroke. Use the Color panel to mix a global process color. Choose a color model for the panel, such as RGB or CMYK, from the panel menu. Quick-select a color by clicking in the spectrum bar at the bottom of the panel, or click the black, white, or none button. You can expand the bar by dragging the gripper bar. To open a temporary Color panel, Shift-click the Fill or Stroke square or arrowhead on the Control panel or the Appearance panel.

Graphics Design



2.3 Customizing workspaces

Once you've configured, moved, and manipulated Illustrator's panels to your liking, you can save customizing workspaces and switch among them.

2.3.1 Customizing workspaces by saving

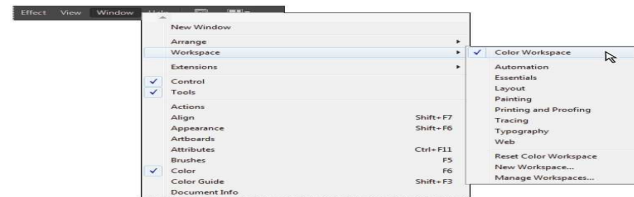
Step 1. To open desired workspace.

Step 2. Clicking on the double arrow in the upper-right corner of the dock.

Step 3. To save this customized workspace, choose Window > Workspace > New Workspace.

Step 4. In Workspace dialog box, type **Color Workspace** in the text field, and press OK.

Step 5. Choose Window > Workspace, notice that your named workspace is now at the top of the list.



Choose Window > Workspace to save a customized workspace.

Step 6. To restore it, choose Window > Workspace to display both the preset workspaces and the custom workspace you just saved.

Step 7. To restore custom workspace, choose Window > Workspace, Color Workspace appears. Choose the Color Workspace to return to that workspace. All panels return to the customized appearance you chose to save.

2.4 keyboard shortcuts

A keyboard shortcut is a combination of keys that, when pressed simultaneously, perform some task that

Ordinarily could take longer to do if you use a mouse or other input device. In Illustrator, keyboard shortcuts are provided for many tools and commands to save you the trouble of searching for these options in its menus and panels. You can view a list of all the shortcuts, and create or edit your own, using the Keyboard Shortcuts dialog box.

2.4.1 Customized keyboard shortcuts

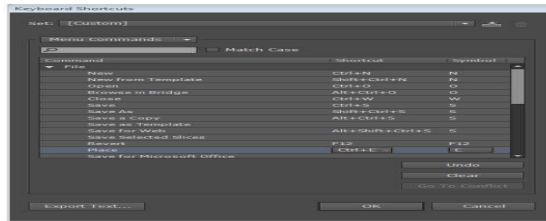
Step 1. To add a custom shortcut, choose Edit > Keyboard Shortcuts.

Step 2. In Shortcuts dialog box, choose the Menu Commands shortcut type from the drop-down menu.

Step 3. Scroll down the menu list to the Place command, by default, doesn't have a keyboard shortcut.

Step 4. Click the Shortcut column next to the Place command, and press Ctrl+E to enter that shortcut.

Step 5. Click the Symbol column next to the Place command, and type E, if there's not already one there. If you enter a shortcut that's already assigned to another command or tool, you'll get a warning about this at the bottom of the Keyboard Shortcuts dialog box.



Change the keyboard shortcut for the Place command.

Step 6. To edit an existing shortcut, click on the shortcut you want to change in the Shortcut column of the list, and type a new shortcut.

Step 7. If that shortcut has already been assigned, follow the directions above to Undo or Go To the other command.

2.5 Preferences

Preferences are options regarding how you want Illustrator to work, including those for display, tools, ruler units, and exporting information. Your preferences are saved in a file called AIPrefs (Windows) or Adobe Illustrator Preference, which is launched each time you start Illustrator.

2.5.1 Open a preferences dialog box

1. Do one of the following
 - Choose Edit > Preferences > [preference set name].
 - Choose Illustrator > Preferences > [preference set name].
 - With nothing selected, click the Preferences button on the Control panel.
2. To switch to a different preference set, do one of the following:
 - Select an option from the menu at the upper-left of the Preferences dialog box.
 - Click Next to display the next options, or click Prev. to display the previous options.

2.5.2 Setting Illustrator preferences

The Illustrator preferences file manages the commands and panel settings in Illustrator. When you open Illustrator, the positioning of panels and commands are stored in the Illustrator preferences file. If you want to restore the default settings for Illustrator or change the current settings, delete the Illustrator preferences. Illustrator automatically creates a preference file, when you restart Illustrator and save a file.

Depending on the operating system that you are using, the Illustrator preferences file is available at the following location

Windows XP

1 <startup drive>\ Documents and Settings\<username>\Application Data\Adobe\Adobe Illustrator CS5 Settings\en_US*AIPrefs

Windows Vista or Windows 7

1 <startup drive>\Users\<username>\AppData\Roaming\Adobe\Adobe Illustrator CS5 Settings\en_US*AIPrefs.

2.6 Navigating Documents Using Navigator Panel

Step 1. Choose Window > Navigator to open the Navigator panel.

Step 2. Press Zoom In button or drag the slider to the right to enlarge the view or type **150** into the view text box. The current view of your artwork increases to 150 percent.



Navigator panel.

Step 3. Red box is visible and displayed inside your document window. This red box shrinks as you increase the magnification of your artwork, and can also be used to scroll around your illustration.



Using the Navigator panel simplifies the process of zooming and scrolling in your artwork.

Step 4. In Navigator panel, drag the slider to the left to reduce the view percentage of your artwork

Step 5. When cursor over the red box, the cursor changes to a hand, drag the red box to scroll to the upper-right corner of the art board.

Step 6. Control the zoom by holding down the Ctrl key and then dragging over an area that you want to zoom into in the Navigator panel.

Step 7. Type **100** into the View Depth text field in the Navigator panel and press Enter to return to actual size.

The PageMaker window is the working space for creating and producing documents. Let's take a brief look at all of the components in the window, since they are similar in both the Mac and PC environments.

2.3. Title Bar

Across the top of the screen is the PageMaker application's title bar.

Across the top of the screen is the PageMaker application's title bar. When the size of the window is less than the maximum size, you can move the entire window by clicking on the title bar and dragging the mouse to a new position.

2.4. Close box

The box at the upper-left side of the document's title bar on the Mac is called the Close box. In Windows 95, a similar box is located at the far right of the document's title bar, with an X in it. Click the Close box once to close the active window.

2.5. Size box

The Size box in the Lower right-hand corner lets you resize the height and width of the active window. Click in the Size box and drag it diagonally to create the size window you want. PC users can also resize a window by dragging the right, left, top, or bottom margins of a window.

2.6. Zoom box

The Zoom box, in the upper right-hand corner of the Mac window increases the window to maximum size.

The Zoom box, in the upper right-hand corner of the Mac window increases the window to maximum size. Clicking the Zoom box again reduces the window back to the size it was. Under Windows 95, this control is to the left of the Close box, and will be represented by a miniature box with title bar (maximized) or a pair of small overlapping boxes (less than maximized.)

2.7. Pull-down Menus

The main pull down menus controls all PageMaker functions. Click on a menu title in the menu bar to pull down the menu. Pull down menus contain five types of commands:

Pull-down Menus

- ◆ Commands with ellipsis (...)
- ◆ Commands with arrows
- ◆ Commands with check marks
- ◆ Commands that are dimmed
- ◆ Commands with keyboard shortcuts

2.8. Commands with Ellipsis (...)

Clicking a command with an ellipsis (such as Save As...) displays a dialog box. Command dialog boxes require you to enter more information, or they present you with more choices.

2.9. Commands with Arrows

A right-pointing arrow means there is a second-level menu (called a submenu) to follow. For example, clicking Font displays a font submenu showing all the currently installed fonts in your system.

2.10. Commands with Check Marks

A check mark beside a command means the command is toggled on (turned on). Clicking a command with a check mark removes the mark and toggles the command off. The check mark beside the Guides command means that guides are displayed. Click the Guides command again to remove the check mark and hide the guidelines.

2.11. Commands that are Dimmed

A dimmed command is not currently available. Often you must select or highlight some text before dimmed commands will darken and become available.

2.12. Commands with Keyboard Shortcuts

Sometimes a keyboard equivalent is displayed by the right of the command. Pressing the keys gives you the same result as selecting the command indicated from the menu.

Sometimes a keyboard equivalent is displayed by the right of the command.



ACTIVITY

2.13 CHECK YOUR PROGRESS

Write the common steps and select common options to navigate the document using navigator panel.

2.14 State whether the following statements are true or false.

1. The Selection tool (V) selects parts of objects.
2. Nine types of tools panels are used in adobe Illustrator.
3. When you delete the current size and position of panels, it is act as a custom workspace.
4. The Add Anchor Point tool (+) adds anchor points to paths.

2.15 Multiple Choice questions

- a. Which is the tool used to navigate the documents?
 - i) Preset Tool
 - ii) Navigator Tool
 - iii) Compare Tool
 - iv) Search Tool.
- b. To add a custom shortcut we choose the ---- keyboard shortcut.
 - i) Move
 - ii) Copy
 - iii) Edit
 - iv) Cut.
- c. Which the sign is used to add anchor point?
 - i) (+)
 - ii) (*)
 - iii) (-)
 - iv) (/).

2.16 Analytical questions.

1. What do you mean by Illustrator tool box?
2. What do you mean by customizing workspace? How can we save it by meaning dialog box?
3. What do you mean by keyboard shortcut?
4. Discuss about process to navigate document and color management.

Lesson 3 : Drawing Objects

3.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Drawing various vectors shapes.
- ◆ Tracing placed images.
- ◆ Using rulers, guides and grids.

3.2. Introduction

3.1 Vector Shapes

A vector shape is a computer shape that uses a **Wire Frame** or **Outlines** to define a shapes area of Images. This is made up of mathematical descriptions of paths and fills to define the graphic. A vector shape is drawn in shapes and lines called paths. There are various types of Vector shapes Vector shapes is the use of geometrical primitives such as points, lines, curves, and shapes or polygon(s), which are all based on mathematical expressions, to represent images in computer graphics.

3.1.1 Using Vector Shapes

Vector shapes are commonly used in

- ❖ **Clip Art** is usually made of Vector type images.
- ❖ **Fonts** are sets of electronic letters and each letter has a shape. These Fonts are normally vector images.
- ❖ **Flash** stores images as vector shapes. So when you draw or paint shapes in Flash they are made up of vectors.
- ❖ **Logos** are usually made of Vector files can be enlarged to any size without loss of image quality.
- ❖ **3D** Rendering programs use Wire Frame or Vector type of images. To create Vector images you would use programs like Adobe Freehand, Adobe Illustrator and CorelDraw. Most 3D programs would use Vectors.

3.2 Drawing Rectangles Shapes

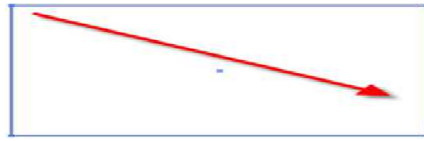
Drawing a Rectangle to follow the steps

Step 1. Select the Rectangle tool  in the toolbox (or press **M** on the keyboard)

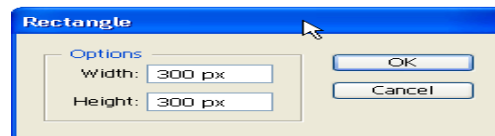
Graphics Design



Step 2. Click and drag the mouse on the art board.



Step 3. Press **Shift + Alt** to draw a square with the initial point as the centre of the square. Enter a width and height in the dialog box, and click OK to generate a precisely sized rectangle.

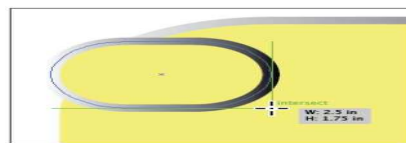


3.2.1 Drawing Rounded Rectangles Shapes

Step 1. Click Rectangle tool to select the hidden Rounded Rectangle tool.

Step 2. Press down arrow key repeatedly to reduce the size of the rounded corner. Press many times to see the difference. Shortcut will not work if you release the mouse.

Step 3. An exact height and width are not important for this shape. When mouse was released then the measurement reached approximately 2.5 inches in width and 1.75 inches in height.

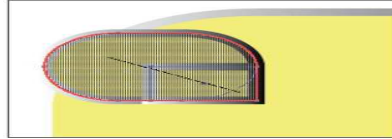


Press the down arrow while dragging the rounded rectangle shape to reduce the corner values.

Step 4. Select the Rectangle tool, click and drag from the center point down to the lower-right of the small rounded rectangle.

Step 5. Select the Selection tool and Shift+click to select the smaller rounded corner shape

Step 6. Select the Shape Builder tool and then click and drag from the rounded rectangle. The shapes are now combined into one shape.



Combine the newly created shapes.

Step 7. Choose File > Save to save this file.

3.3 Drawing Square by Rectangle Tool (M)

- Click and drag to draw a square or rectangle originating from a corner.

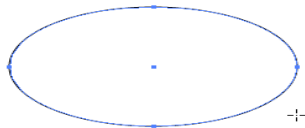


- Click once to open the **dialog box** and see what the settings are for what you've just drawn.
- **Option** lets you draw your square or rectangle originating from the center.
- **Shift** lets you draw only equilateral squares originating from a corner.
- **Shift-Option** lets you draw only equilateral squares originating from the center.
- **Spacebar** allows you to freeze and freely move your shape around while still drawing.
- Once drawn, use the **Direct Selection Tool (V)** to click on your art board - then select your shape and **Option-drag** to make a copy.

3.4 Drawing Circle/Ellipse

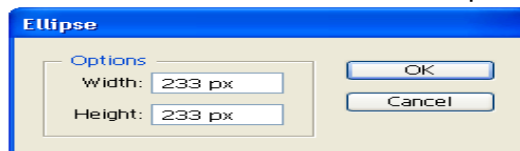
Step 1. Select the Circle/Ellipse tool  from the toolbox.

Step 2. Click and drag diagonally until the Circle/Ellipse is the size you want.



Step 3. Hold down the Shift key to constrain the Circle/Ellipse to a perfect circle.

Hold down Alt to draw the Circle/Ellipse from the center out.



Step 4. Specify a width and height for the Circle/Ellipse, and click OK.

Step 5. File then Save. Save the work for next action.

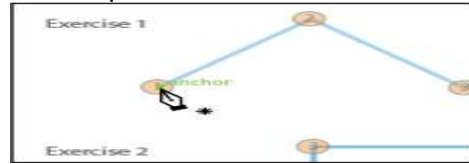
3.5 Drawing lines

Step 1. Choose File > Open. Open desired file.

Step 2. Choose File > Save As. In the Save As dialog box, type File name into the Name text field; then press Save. In the Illustrator Options dialog box, press OK to accept the default settings.

Step 3. In the Control panel select none from the Fill color drop-down menu. Select the color black from the Stroke color drop-down menu and select 2 pt from the Stroke Weight drop-down menu.

Step 4. Select the Pen tool and locate the template labeled Exercise 1 on the art board. This starts the line by creating the first anchor point.



Use the Pen tool to create the first anchor point.

Step 5. Move your cursor to the part of the line labeled 2, and click and release your mouse. The second point of the line is created. The Pen tool automatically draws a straight line between the two points.



Click to create the second anchor point.

Step 6. Continue to click and release to complete the line.

Step 7. After you have set a final anchor point, press and hold Ctrl and click on any empty area of the page. This deselects and ends the line.

Step 8. Cursor over Exercise 1,2,3,4 etc. Click and release the left mouse button to create the first/second/3rd/fourth anchor point of the new line.



Pressing Shift while clicking allows you to create 90- and 45-degree angles with the Pen tool.

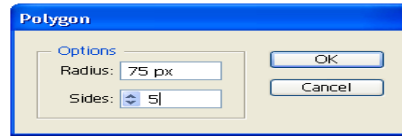
Step 9. With a final anchor point at label 5, hold down the Ctrl key and click on the art board to deselect and end the line.

Step 10. Choose File > Save to save your work.

3.6 Drawing Polygon

Step 1. Select the Polygon tool from the toolbox. Polygon dialog box appear.

Step 2. Click once on the art board where you want the center of the polygon to be. Specify a radius and number of sides for the polygon, and click OK.

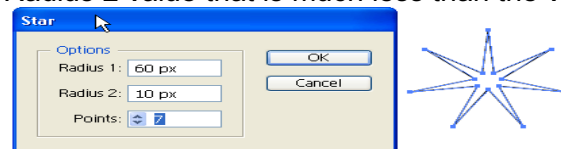


3.7 Drawing Stars

To drawing STARS complete the following steps

Step 1. File > Drawing tools > Drawing star. Star dialog box appear on the art board. You can adjust the ratio between Radius 1 and Radius 2, causing a change in how pointed the star is.

Step 2. You can create a sharply pointed star by defining a Radius 2 value that is much less than the value of Radius 1.



Step 3. Set points value of 7. Then press OK to create STAR.

Step 4. File > Save, save your work.

3.8 Tracing

Tracing means the act of copying by marking on transparent paper. Adobe Illustrator added tracing options with the Live Trace feature, but it did have some limitations. When you place a bitmap image in your document, you can access Image Trace in two ways using the default presets located in the Control panel or using the new Image Trace panel. Image Trace panel are six preset buttons Auto-Color, High Color, Low Color, Gray scale, Black and White, and Outline.

3.8.2 Tracing Placed Image Using Tracing Panel

Step 1. Choose File > Open. Open desired file.

Step 2. Choose File > Save As. In the Save As dialog box, type File name into the Name text field; then press Save. In the Illustrator Options dialog box, press OK to accept the default settings.

Step 3. Work with a picture of bananas, converting it from a bitmap to a vector image. Select the Zoom tool to enlarge the view so you can see the tracing results better.

Step 4. Using the Selection tool, click on the picture, then choose Window > Image Trace. The Image Trace panel will appear. You can view both the panel and image at the same time.

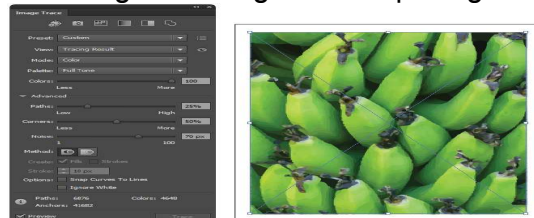
Graphics Design



Click on the picture and open the Image Trace panel.

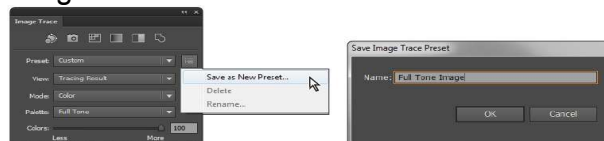
Step 5. Top of the panel are six preset options. Click Auto-Color button as above figure. The Auto-Color preset will preview live on the art board.

Step 6. From the Palette drop-down menu, select **Full Tone**. In the Advanced option section, type **25%** in the Paths, **50%** in the Corners and **70px** in the Noise text fields, then press Enter. As you can see, these small adjustments produce a much better rendering of the original bitmap image.



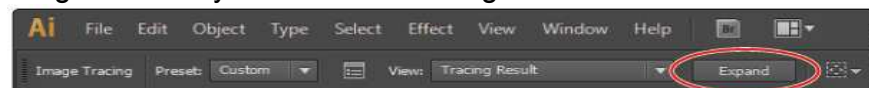
Make some custom adjustments to enhance the image tracing results.

Step 7. You can save your own preset to use again on other images. Click on Preset panel menu and select Save as New Preset. In Save Image Trace Preset dialog box, type Full Tone Image then click OK.



Save your own custom preset.

Step 8. Click Expand button to finalize the trace and expand your image into a fully editable vector image.



Click Expand in the Control panel to complete the vector trace.

Step 10. Choose File > Save. Leave the file open for the next exercise.

3.9 Using rulers

Rulers help you accurately place and measure objects in the illustration window or in an art board. The point where 0 appears on each ruler is called the *ruler origin*. Illustrator provides separate rulers for documents and art boards. You can select only one of these rulers at one point. Create artwork of a specific size that is aligned, scaled, and positioned properly by using rulers and guides. Toggle the rulers on and off, change the units of measurement, add and lock guides, and use the x and y coordinates to navigate a document.

3.9.1 Types of rulers

There are two types of Rulers used in Adobe Illustrator. Such as;

1. **Global rulers** appear at the top and left sides of the illustration window. The default ruler origin is located at the top-left corner of the illustration window.

2. **Art board rulers** appear at the top and left sides of the active art board. The default art board ruler origin is located at the top-left corner of the art board.

3.9.3 Commands for Show/Hide Rulers

- To show or hide rulers, choose View > Rulers > Show Rulers or View> Rulers > Hide Rulers.
- To toggle between art board rulers and global rulers, click the View > Rulers > Change to Global Rulers or View > Rulers > Change to Art board Rulers.
- To show or hide video rulers, choose View > Show Video Rulers or View > Hide Video Rulers.
- To restore the default ruler origin, double-click the upper-left corner where the rulers intersect.

3.10 Creating guides

1. If the rulers aren't showing, choose View > Show Rulers.
2. Position the pointer on the left ruler for a vertical guide or on the top ruler for a horizontal guide.
3. Drag the guide into position.
You can also convert vector objects to guides by selecting them and choosing View > Guides > Make Guides.
4. If you want to restrict the guides to an art board and not to the entire canvas, then select the Art board tool and then drag the guides on to the art board.

3.10.1 Using guides

Guides help you align text and graphic objects. You can create ruler guides and guide objects. Like the grid, guides do not print. You can choose between two guide styles, dots and lines and you can change the color of guides by using either predefined guide colors or colors you select using a color picker. By default, guides



are unlocked so that you can move, modify, delete, or convert them, but you can choose to lock them into place.

- To show or hide guides, choose View > Guides > Show Guides or View > Guides > Hide Guides.
- To change guide settings, choose Edit > Preferences > Guides & Grid or Illustrator > Preferences > Guides & Grid.
- To lock guides, select View > Guides > Lock Guides.



3.11 Drawing grids

Use the grid tools to quickly draw rectangular and polar grids. The Rectangular Grid tool creates rectangular grids of a specified size with a specified number of dividers. The Polar Grid tool creates concentric circles of a specified size and a specified number of dividers.

3.11.1 Drawing rectangular grids

1. Select the Rectangular Grid tool .
2. Do one of the following:
3. Drag until the grid is the desired size.
4. Click to set the grid's reference point. In the dialog box, click a square on the reference point locator  to determine the point from which the grid is drawn. Then set any of the following options, and click OK. Default Size Specifies the width and height of the entire grid.

3.11.2 Drawing circular (polar) grids

1. Select the Polar Grid tool .
2. Do one of the following:
3. Drag until the grid is the desired size.
4. Click to set the grid's reference point. In the dialog box, click a square on the reference point locator  to determine the point from which the grid is drawn. Then set any of the following options, and click OK. Default Size Specifies the width and height of the entire grid.



CHECK YOUR PROGRESS

3.12 State whether the following statements are true or false.

1. An exact height and width are very important for the shape.
2. Fonts are sets of electronic letters and each letter has a shape.
3. Make anchor points with the Pen tool Lines are automatically generated as a result.

3.13 Multiple Choice questions

- a. How many dividers are used in circular grids?
 - i) 2
 - ii) 3
 - iii) 4
 - iv) 5.
- b. Rulers are used in illustrator to measure ----.
 - i) Hue
 - ii) Object
 - iii) Subject
 - iv) Predicate
- c. How many types of image are in Tracing options?
 - i) 10
 - ii) 11
 - iii) 12
 - iv) 13

3.14 Analytical questions.

1. What do you mean by shape and vector shape?
2. What do you mean by Tracing?
3. Practice with various vector shapes.
4. Practice with using rulers, guides and grids.

Lesson 4 : Selection Tools

4.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Various selection tools.
- ◆ Various advanced selection tools.
- ◆ Adding and subtracting selections.
- ◆ Saving and reloading selections.

Introduction

4.2 Making selections

Making a selection is the process to organize and lay out your art work; you use tools for selecting, positioning, and stacking objects precisely. You can measure and align objects; group objects so that they are treated as a single unit; and selectively isolate, lock, or hide objects.

4.3 Options for selecting objects

Before you can modify an object, you need to distinguish it from the objects around it. You do that by selecting the object. Once you've selected an object, or a part of an object, you can edit it. Illustrator provides the following selection methods and tools


4.3.1 Isolation mode

Lets you quickly isolate a layer, sub layer, path, or group of objects, from all other art in your document. When in isolation mode, all non isolated objects in the document appear dimmed and are not selectable or editable.

4.3.2 Layers panel

Lets you quickly and precisely select individual or multiple objects. You can select a single object (even if it's in a group), all objects within a layer, and entire groups.

4.3.3 Selection tool


 Lets you select objects and groups by clicking or dragging over them. You can also select groups within groups and objects within groups.

4.3.4 Direct Selection tool


 Lets you select individual anchor points or path segments by clicking on them, or select an entire path or group by selecting any

other spot on the item. You can also select one or more objects in a group of objects.


4.3.5 Group Selection tool

 Lets you select an object within a group, a single group within multiple groups, or a set of groups within the artwork. Each additional click adds all objects from the next group in the hierarchy.


4.3.6 Lasso tool

 Lets you select objects, anchor points, or path segments by dragging around all or part of the object.

4.3.7 Magic Wand tool

 Lets you select objects of the same color, stroke weight, stroke color, opacity, or blending mode by clicking the object.

4.3.8 Live Paint Selection tool

 Lets you select faces and edges (portions of paths between intersections) of Live Paint groups.

4.4 Specify selection preferences

Selecting paths and points in complex images can be challenging. Using the Selection and Anchor display preferences, you can specify the tolerance for pixel selection and choose other options that can make selection easier for a particular document.

1. Choose Edit > Preferences > Selection & Anchor
2. Specify any of the following Selection options

Tolerance

Specifies the pixel range for selecting anchor points. Higher values increase the width of the area around an anchor point that you can click to select it.

Object Selection By Path Only

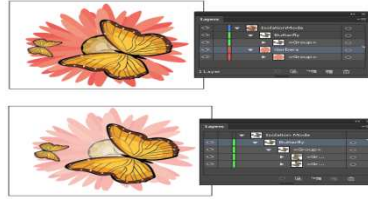
Specifies whether you can select a filled object by clicking anywhere in the object or whether you have to click a path.

Snap To Point

Snaps objects to anchor points and guides. Specify the distance between the object and anchor point or guide when the snap occurs.

4.5 Applying selecting process to isolate artwork for editing

Isolation mode isolates objects so that you can easily select and edit particular objects or parts of objects. You can isolate any of the following layers, sub layers, groups, symbols, clipping masks, compound paths, gradient meshes, and paths. In Isolation mode, you can delete, replace, and add new art relative to the isolated art.




Isolating the butterfly group


When it is active, it appears in full color, while the rest of the artwork appears dimmed. Its name and location appears in the isolation mode border, and the Layers panel displays only the artwork in the isolated sub layer or group.

4.6 Isolate a path, object, or group

❖ Do one of the following

- Double-click the path or group using the Selection tool.
- Select the group, object, or path and click the Isolate Selected Object button  in the Control panel.
- Right-click (Windows) or Control-click (Mac OS) the group and choose Isolate Selected Group.
- Right-click (Windows) or Control-click (Mac OS) the path and choose Isolate Selected Path.
- Select the group, object, or path in the Layers panel and choose Enter Isolation Mode from the Layers panel menu or click the Isolate Selected Object button in the Control panel.

4.6.1 Isolate a path inside a group

1. Select the path by using the Direct-Selection tool or by targeting it in the Layers panel.
2. Click the Isolate Selected Object button  in the Control panel.

4.6.2 Isolate a layer or sub layer

❖ Select the layer or sub layer in the Layers panel, and choose Enter Isolation Mode from the Layers panel menu.

4.7 Selecting Objects


Selecting objects are most important to select objects or images or layers or sub layers.

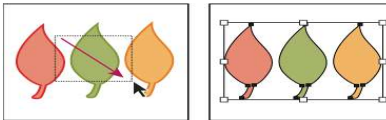
4.7.1 Select objects using the Layers panel

1. In the Layers panel, locate the object you want to select. You may have to click a toggle arrow to expand a layer or group, or scroll up or down in the panel to locate the object.



2. Do any of the following
 - To select individual objects, click in the object's selection column (between the target button and the scroll bar). Shift-click to add or to remove objects from the selection.
 - To select all artwork in a layer or group, click in the layer's or group's selection column.
 - To select all artwork in a layer based on the currently selected artwork, choose **Select > Object > All Same Layers**. Selection color boxes appear next to each selected item in the panel.

4.7.2 Select objects with the Selection tool


1. Select the Selection tool .
2. Do either of the following
 - Click an object.
 - Drag a marquee around part or all of one or more objects.
3. To add or remove objects from the selection, hold down Shift and click or drag around the objects you want to add or remove.



Dragging over objects to select them

When the Selection tool is over an unselected object or group, it changes when it is over a selected object or group, the tool changes to . When it is over an anchor point on an unselected object, a hollow square appears next to the arrow .

4.7.3 Select objects with the Lasso tool

1. Select the Lasso tool .
2. Drag around or across the objects.

4.7.4 Select objects with the Magic Wand tool


Use the Magic Wand tool to select all objects in a document with the same or similar fill attributes. You can customize the Magic Wand tool to select objects based on stroke weight, stroke color, opacity, or blending mode. You can also change the tolerances used by the Magic Wand tool to identify similar objects.

4.8 Using selection tools


Selection tools are the most powerful tools in adobe Illustrator. To manipulate images in various ways

Selection tools are most useful tools. Every levels and layers of images are necessary to select, manipulate and modified Selection tools is most useful there.




4.8.1 Select one or more groups with the Selection tool

1. Select the Selection tool .
2. Do one of the following to any object that's within the group
 - Click the object.
 - Drag around part or the entire object.
3. To add or remove a group to the selection, hold down Shift while clicking the group to add or remove.

4.8.2 Select objects and groups within groups with the Selection tool

1. Select the Selection tool .
2. Double-click a group. The group appears in isolation mode.
3. Do any of the following
 - Double-click to select further down into the group structure.
 - Click to select an object within the selected group.
 - Draw to add an object to the selected group.
4. Double-click outside the group to deselect the group.

4.8.3 Select a single object within a group

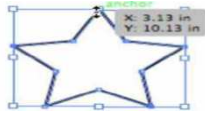
1. Do one of the following
 - Select the Group Selection tool , and click the object.
 - Select the Lasso tool , and drag around or across the object's path.
 - Select the Direct Selection tool , and click within the object, or drag a marquee around part or all of the object's path.
2. To add or remove an object or group to or from the selection (with any selection tool), hold down Shift and select the object to add or remove.

4.9 Advanced Selection technique

This is the most powerful technique in selections. Any critical and complex selection this tools is applied.

4.9.1 Applying advanced Selection technique to select an anchor point

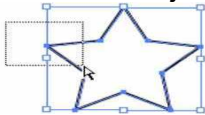
1. Choose Select-->Deselect to make sure the object isn't selected.
2. Select the Direct Selection tool from the Tools panel.
3. Click one anchor point. Only one anchor point is solid, and the others are hollow.



4. Click and drag that solid anchor point with the Direct Selection tool. Only that solid anchor point moves.

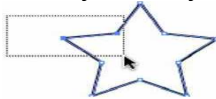
4.9.2 Applying advanced Selection technique to select an object

1. Choose the Selection tool.
2. Click outside the object and drag over a small part of it. The entire object becomes selected.



You can also select only one anchor point in an object by using the marquee method

3. Choose Select-->Deselect to make sure the object isn't selected and then choose the Direct Selection tool.
4. Click outside a corner of the object and drag over only the anchor point you want to select. Anchor point is active, when you're trying to select individual points.

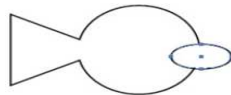


4.10 Subtracting selection with the Shape Builder tool

Step 1. Click and hold down on the Polygon tool in the Tools panel to select the hidden Ellipse tool.

Step 2. Choose View > Snap to Point to uncheck that feature. For small shapes, this feature prevent the correct shape.

Step 3. Click and drag a small ellipse over the right side of the newly created shape. The ellipse will be subtracted from combined shape to form of mouth.



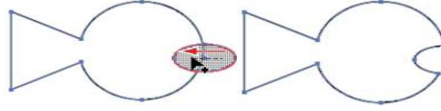
Create the shape that will be subtracted to form a mouth.

Step 4. Push Selection tool and Shift+click to activate both the ellipse and combined shape at the same time.

Step 5. Select the Shape Builder tool and hold down the Alt key. The cursor shows a minus sign in the lower-right.

Step 6. Alt/Option key still being held down, and click inside-right edge of the ellipse into the left edge. When you release, the

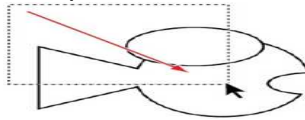
ellipse shape is subtracted from the combined shape, form of mouth.



Select both shapes. Hold down Alt/Opt key and drag within the ellipse shape to subtract it.

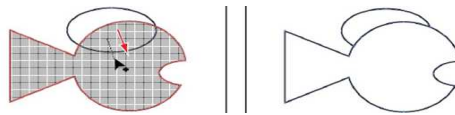
Step 7.Select the Ellipse tool, then click and drag to create an oval shape that intersects across the top of the combined shape.

Step 8.Hold Ctrl key and notice you are on the Ellipse tool, the cursor has changed into the Selection cursor. Click and drag a marquee that touches both ellipse and fish body shape to activate both shapes.



Hold down the Ctrl/Command key to temporarily access the Selection tool.

Step 9.With both shapes selected, select the Shape Builder tool and click and drag from the area where the ellipse and the fish body shape meet into the fish shape. The intersected area is added to the fish body shape.



Click and drag from within the intersected the result. Shape into the fish body shape.

Step 10.Choose File > Save or press Ctrl+S to save your file. Keep it open for the next action.

4.11 Saving a selection

Illustrator comes to the rescue with the Save Selection feature. After you have a selection that you may need again, choose Select-->Save Selection and name the selection. The selection now appears at the bottom of the Select menu. To change the name or delete the saved selection, choose Select-->Edit Selection. This selection is saved with the document. A selection is just an extra channel that you can call on at any time.

4.11.1 Creating an alpha channel to save selection follow these steps

1. Create a selection that you want to save.
2. Choose Select→ Save Selection.
3. Name the selection and click OK.



ACTIVITY

4.12 State whether the following statements are true or false.

1. To add objects from the selection, hold down Shift and click around the objects you want to add.
2. Choose Select→Load Selection to Selection dialog box appears.
3. Deselecting paths and points in complex images can be challenging.
4. Click outside the object and drag over a small part of it.

4.13 Multiple Choice questions

- a. Selection is the process to ---- and lay out your art work.
 - i) Determine
 - ii) Organize
 - iii) Adding
 - iv) Subtracting.
- b. What is the right option used to Isolate Selected Group?
 - i) Right click
 - ii) Left click
 - iii) Enter
 - iv) Escape.
- c. Which is the shortcut command used to deselect an object?
 - i) Alt + click
 - ii) Shift + check
 - iii) Shift + click
 - iv) Ctrl + click.
- d. Which is the tool used to specify the difference between object and anchor point?
 - i) Lasso
 - ii) Snap
 - iii) Magic wand
 - iv) Tolerance.

4.14 Analytical questions.

1. What is called selection tools?
2. Describe various selection tools.
3. Describe the process to adding and subtracting selections.
4. Practice with saving and reloading selections.
5. Write the common steps of subtracting selections with shape builder tools.

Lesson 5 : Managing Shapes in Adobe Illustrator

5.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Copying various shapes from one to another.
- ◆ Transforming various images shapes.
- ◆ Aligning & distributing various shapes.
- ◆ Locking & hiding various shapes.

5.2 Moving the shapes

Move shapes/objects by dragging with specific tools, by using the arrow keys or by entering values in dialog box. Use snapping to position of shapes/objects. You can also use the Align panel to position shapes/objects in relation to each other. Use Shift key to move shapes/objects horizontal, vertical, or diagonal direction of the x and y axes.

5.2.1 Move or duplicate a shape/object by pasting

1. Select one or more shapes/objects.
2. Choose Edit > Cut to move the selection or Edit > Copy to duplicate the selection.
3. To paste an shape/object into another file, open the file.
4. Choose one of the following commands

Edit > Paste Pastes the shape/object into the center of the active window.

Edit > Paste In Front Pastes the shape/object directly in front of the selected shape/object.

Edit > Paste In Back Pastes the object directly in back of the selected object.

Edit > Paste in Place Pastes artwork on the active art board at the same position as the art board from where the artwork is copied.

Edit > Paste on All Art boards Pastes artwork on all the art boards at the same location where the artwork is on the current art board.

5.2.2 Move a shape/object by dragging

1. Select one or more shapes/objects.
2. Drag the shape/object to a new location. If a selected shape/object is filled, you can drag from anywhere on the shape/object. If a selected object is unfilled, if you are viewing artwork as outlines, or if the Shape/Object

Selection By Path Only preference is selected, you must drag from the shapes/object's path.

5.2.3 Move a shape/object using the arrow keys

1. Select one or more shapes/objects.
2. Press arrow key to move the shape/object. Press Shift+arrow to move the shape/object ten times the value specified by the Keyboard Increment preference. The default distance is 1 point (1/72 of an inch, or .3528 millimeter). To change the Keyboard Increment preference, choose Edit > Preferences > General.

5.3 Paste a shape/object relative to other objects

1. Select the shape/object you want to paste.
2. Choose Edit > Copy or Edit > Cut.
3. Select the shape/object in front or in back of which you want to paste.
4. Choose Edit > Paste In Front or Edit > Paste In Back.
If you paste more than one shape/object, all pasted shapes/objects appear in front or in back of the selected artwork.

Copying / cloning the shapes

Step 1. Make sure that the smaller shape you just created is selected.

Step 2. Choose the Selection tool and then position your cursor over the smaller shape that you created.

Step 3. Press Alt key, to create a copy of the original shape directly. That will be addressed in a later step.

Step 4. Repeat the same process to clone a third shape underneath the second

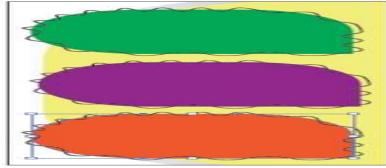
Step 5. Select middle shape and click on the Fill box. Click the arrow that appears on the right of the Fill box and select the purple (C=50, M=100, Y=0, K=0) color at the beginning of the third row of swatches.



Use the Appearance panel to change the fill color.

Step 6. Select the bottom shape, click the arrow that appears on the right of the Fill box in the Appearance panel, and select the

orange (C=0, M=50, Y=100, K=0) color at the end of the first row of swatches.



The artwork at this stage.

5.5 Aligning and distributing the shapes

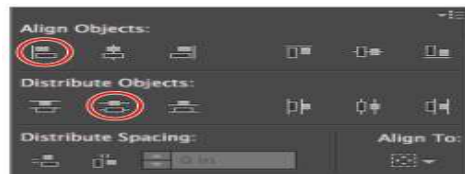
You will now align and distribute the shapes.

Step 1. Use Selection tool to Shift+click and select all three shapes.

Step 2. If no Align buttons, click on Align panel, or select Window > Align to show the Align panel.

Step 3. Select Horizontal Align Left from the Align Objects row.

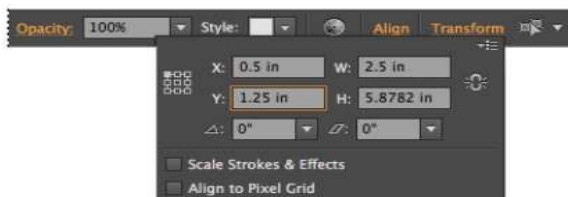
Step 4. Click on the Vertical Distribute Center button in the Distribute Objects row.



Align and distribute the shapes.

Step 5. Select all shape and click on Transform tool. Transform panel appears.

Step 6. With all three shapes selected, click on the upper-left corner of the reference point and change the X value to **.5**, and the Y value to **1.25**.



Set the position for the three shapes.

Step 7. Select the large shape, and type **1.25** in the X text field and **.75** into the Y text field. Ignore it if the value changes slightly after you have entered it.



Set the position for the three shapes.

Step 8. Choose File > Save to save this file. Keep it open for the next action.

5.6 Grouped shapes / objects

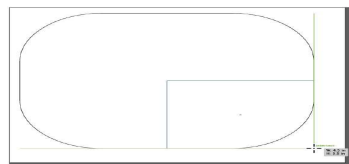
Combine shapes/objects into a group those are treated as a single unit. Grouped shapes/objects are stacked in succession on same layer of the artwork. Group change layering of objects and their stacking order on a given layer. If you select objects in different layers and then group them, the objects are grouped in the layer of the topmost selected object. Groups can also be nested; they can be grouped within other objects or groups. Groups appear as <Group> items in the Layers panel.

1. Select the shapes/objects to be grouped or the group to be ungrouped.
2. Choose either Object > Group or Object > Ungroup.

5.6.1 Grouping shapes

Step 1. Open desired file/shape.

Step 2. Click Rounded Rectangle tool and release when the rectangle is flush with the bottom and right sides of the rounded rectangle. Creating the sharp corner in the lower-right of this shape.

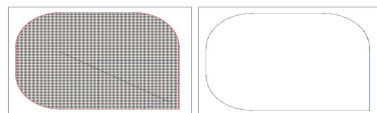


Click and drag to create a rectangle.

Step 3. Hold Shift+ click on the rounded rectangle shape. Rectangle and Rounded rectangle are selected.

Step 4. Select the Shape Builder tool from the Tools panel.

Step 5. With the Shape Builder tool, click and drag from the larger rounded rectangle all the way down into the lower-right corner of the rectangle shape and release. The shapes are now grouped into one shape.




Click and drag through the shapes.

5.7 Locking Shapes or Objects or layers


Locking shapes or objects or layers prevents you from selecting and editing them. You can quickly lock multiple paths, groups, and sub layers by locking their parent layer. You can also use the following commands to lock shapes or objects or layers

- To lock shapes or objects or layers, click the edit button in the Layers panel for the shapes or objects or layers you want to lock. Drag across multiple edit buttons to lock multiple items.
- To lock all shapes that overlap the area of the selected shapes and that are in the same layer, select the shapes, and then choose shapes > Lock > All Artwork Above.
- To lock all shapes other than the shapes that contains a selected item or group, choose shapes > Lock > Other Layers or choose Lock Others from the Layers panel menu.

5.8 Unlocking Shapes or Objects or layers

- To unlock shapes or objects or layers, click the lock icon  in the Layers panel for the shapes or objects or layers you want to unlock.
- To unlock all shapes in the document, choose shapes > Unlock All.
- To unlock all shapes within a group, select unlocked and visible shapes within the group. Hold down Shift+Alt and choose shapes > Unlock All.

5.9 Hiding shapes or objects or layers

- In the Layers panel, click the eye icon  next to the item you want to hide. Click again to redisplay the item. If you hide a layer or group, all items in the layer or group are hidden.
- Drag across multiple eye icons to hide multiple items.
- Select shapes you want to hide, and choose shapes or objects or layers > Hide > Selection.
- To hide all shapes, select the shapes and choose shapes > Hide > All Artwork Above.
- To hide all unselected shapes, choose Hide Others from the Layers panel menu or Alt+ click the eye icon for the shapes or objects or layers you want to show.

5.10 Transforming

Transforming a shape/object is typically changing its position or shape, or both. Of course, it seems obvious and easy enough, but this simple operation is capable of altering your image drastically. There are many types of transformations altering various parameters (position, size, angle, etc.), they can be performed both separately or together at the same time. Transformation applies to one or more objects that are already selected with the Selection Tool (V).

5.10.1 Description of various Transforming Tools

In adobe Illustrator various transforming tools are used. It is very useful and powerful tools of adobe Illustrator. The common used transforming tools are describing below

5.10.1.1 Moving

A major type of transformation is moving. Move is a transformation. Moving an object means changing its coordinates, so the position is altered – hence, moving is transforming. This is the most popular way to transform, as we always move objects from one place to another. Moving is measured in points, pixels, or other distance units that are set in Preferences.

5.10.1.2 Scaling

Scaling is altering the size of an object. Many ways of scaling, but all of them change the size of an object. Any transformation point may be assigned while scaling. On two-dimensional graphics there are two axes, so the object may be scaled in two directions. It is possible to scale it separately, in this case the shape and proportions of object will be changed.



If you want to maintain proportions when scaling, hold the Shift key. If you want to create shapes from the center hold the Alt key.

5.10.1.3 Rotating

Rotating is changing the object's angle. Varying from 0 to 360 degrees, we can rotate the object from the initial position on a virtual imaginary circle. Depending on the point of transformation we assign, the diameter of this virtual circle may be altered. There are many ways of rotating an object, entering a needed angle. Rotation is measured in degrees from -360 to 360.

5.10.1.4 Mirroring

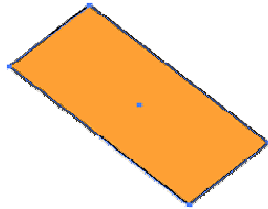
Mirroring, or reflecting, is a more complex way of transformation. It flips the object in any direction, reflecting it from the axis we need. We can simply flip an object vertically or horizontally, or insert any

other angle. It also rotates it depending on the axis and transformation point.

This transformation results in a mirror reflection of the original object, when we assign the point where mirror stands.

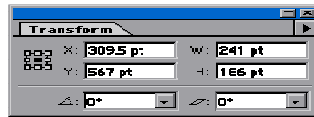
5.11 Transforming shapes/objects

You can perform the following steps to Transforming shapes or objects

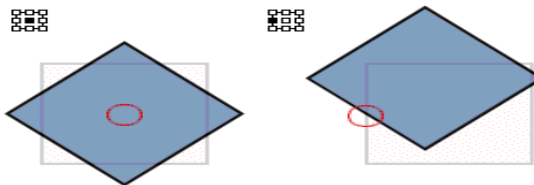


- It was rotated 60° and sheared - 30° using the pull-down menus from the Transform palette. It is easier to use the Transform palette to create complex transformations to your objects

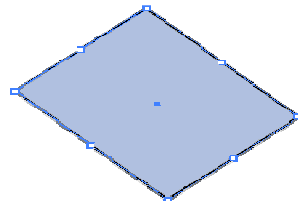
and shapes.



- Transform palettes used to make simple transformations to left. You can also change the size of the shapes/objects by using the Width and Height fields.
- It specify where the shapes/objects will be affected. If you rotate the shapes/objects, it will be rotated around it is center point. Both of these shapes/objects were rotated 45°



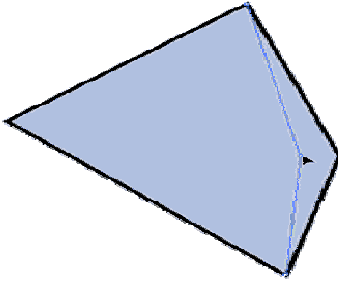
- Transformations also work with Free Transform tool. Access this tool by selecting it from the toolbar.



- By mouse over it will change indicating that you can edit the object from this point.

Graphics Design

- Using the Direct Selection tool (), Image edit quickly.
- Rotate and Scale tool, transformations can be performed with Free Transform tool.





ACTIVITY

CHECK YOUR PROGRESS

5.12 Write the types of various transforming tools.

5.13 State whether the following statements are true or false.

1. Add anchor points and segments to the object forming it drastically.
2. To change the Keyboard Increment preference, choose Edit > Preferences > General (Windows).
3. If you want to lock layers, click the edit column button in the Layers panel.
4. Drag across multiple eye icons to show multiple items.

5.14 Multiple Choice questions

- a. Which is the command used to paste the shape into the center of window?
 - i) Escape
 - ii) Cut
 - iii) Paste
 - iv) Paste in front.

- b. Which is the option used to move the shape left?
 - i) Plus key
 - ii) Minus key
 - iii) Right arrow
 - iv) Left arrow.

5.15 Analytical questions.

1. What do you mean by moving shape?
2. Describe various types of shape moving.
3. Describe various shape transforming process.
4. Practice on transforming shapes.