



# DM

## **INSTRUCTIONAL NOTES**

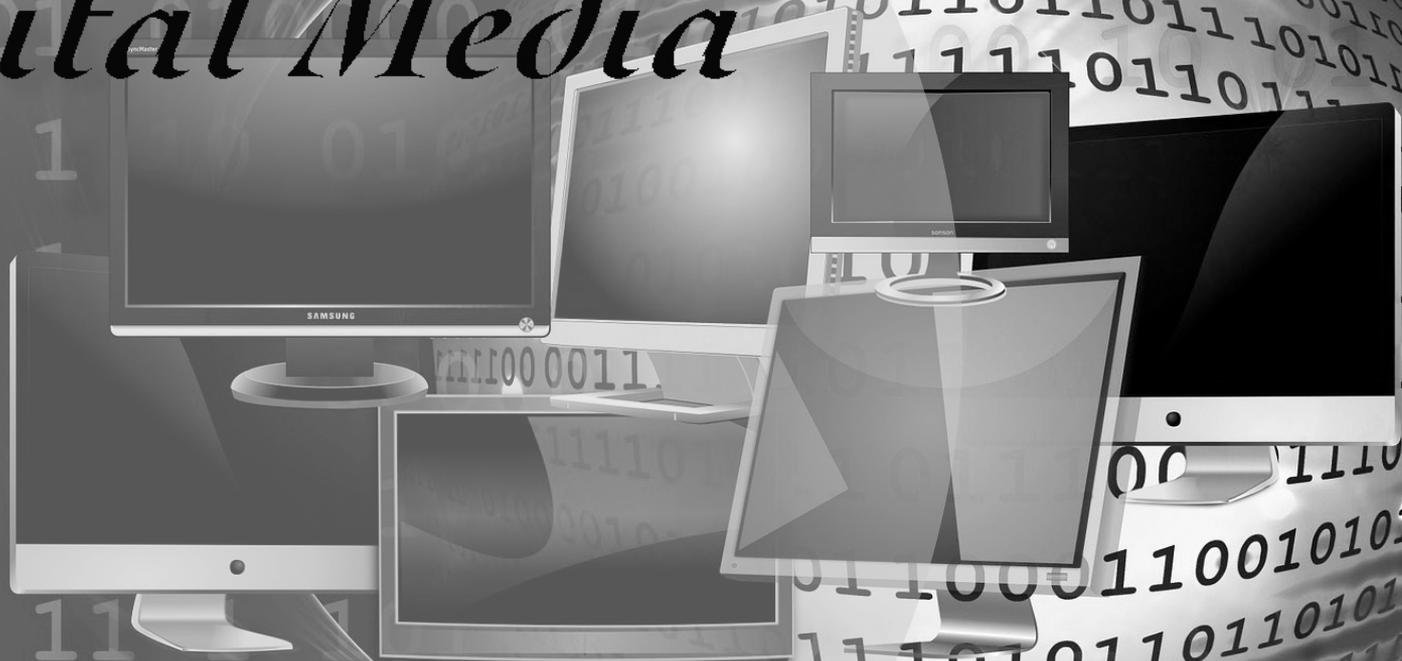
There are many similarities between Photoshop and Illustrator. We have attempted to place tools and commands in the context of where they are most effective or used most often. This is NOT intended to be a comprehensive document but an INTRODUCTION to these concepts.

Teachers are encouraged to include tools and features based on skill levels of students and teacher, as well as compare their uses in each of the programs.



**ExplorNet's**

# *Digital Media*



Objective 102.04

Utilize appropriate tools and methods to produce digital graphics.



# **FREE TRANSFORM**

- Change by using rotate, scale, skew, distort, or perspective in one continuous operation. Instead of choosing different commands, you simply hold down a key on your keyboard to switch between transformation types.
- Rotating an object turns it around a fixed point that you choose.
- Hold Shift while resizing to keep the proportions or use Scale instead.



## ***QUESTIONS TO CONSIDER***

- Explain how scaling an image can change it along the x axis, y axis or both.
  
- Predict the changes in an object when rotating, flipping, reflecting and resizing.



# **SELECTION TOOLS**

- Selection
  - Surrounding specific part(s) of a graphic to make individual adjustments.
- Tools allow you to choose a specific part of the image. There are several selection tools and each works in a different way.
  - Marquee
  - Lasso
  - Quick Selection Tool
  - Magic Wand



# *DM* **MARQUEE TOOLS**

Selects in the shape specified. The marquee shows the following options:

- Rectangle
- Elliptical
- Single Row
- Single Column



# **LASSO TOOLS**

Three versions of lasso selection tool all enable a free-hand draw around image to be selected.

- Lasso
  - Lasso tool is great for drawing freeform segments of a selection border.
- Polygonal Lasso
  - The polygonal lasso is best for straight-edged segments of a selection border.
- Magnetic Lasso
  - The magnetic lasso tool snaps to the edges of defined areas (color) in the image.





# DM

## ***OTHER SELECTION TOOLS***

### ○ Quick Selection

- Use the quick selection tool to quickly “paint” a selection using a round brush tip.

### ○ Magic Wand

- The magic wand will allow you to make selections by color, pattern and stroke weight.



# **QUESTIONS TO CONSIDER**

- Explain how individual anchor points can be selected using the direct selection tool instead of the magic wand tool.
- Compare the difference in using the polygonal lasso and the magnetic lasso for these types of images:
  - American flag
  - Stop sign
  - Cars in rush hour traffic
  - Star fish
  - Dolphin



# GRAPHIC EDITING TERMS

- Shear
  - Shearing objects will slant or skew the object. This is great for casting shadows.
- Feathering/Blending
  - Smoothing or blurring the edges of an image to help transition into the background or into another image.



**DISTORTION**





# ***SPOT HEALING BRUSH OPTIONS***

- Content Aware Patch
  - This allows you to replace unwanted parts of the image with pixels near it.
- Content Aware Move
  - Select and move a part of a picture. The image is recomposed, and the hole left behind is filled using matching elements from the picture.





# **STRAIGHTEN TOOL**

With the crop tool, you can straighten the image.

Choose Straighten Tool by clicking on its icon in the Options Bar or press CTRL/ CMD while the crop tool is active.

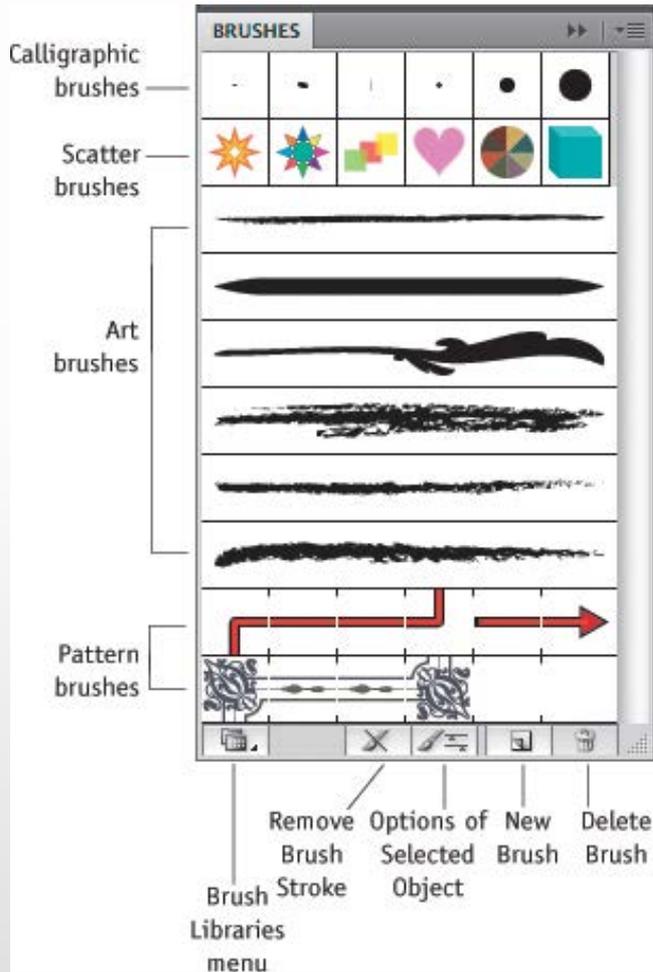




## ***QUESTIONS TO CONSIDER***

- Summarize the process the software uses when blending the content surrounding the area.
- Compare the end results of using content aware move against content aware patch.

# DM BRUSH TOOL



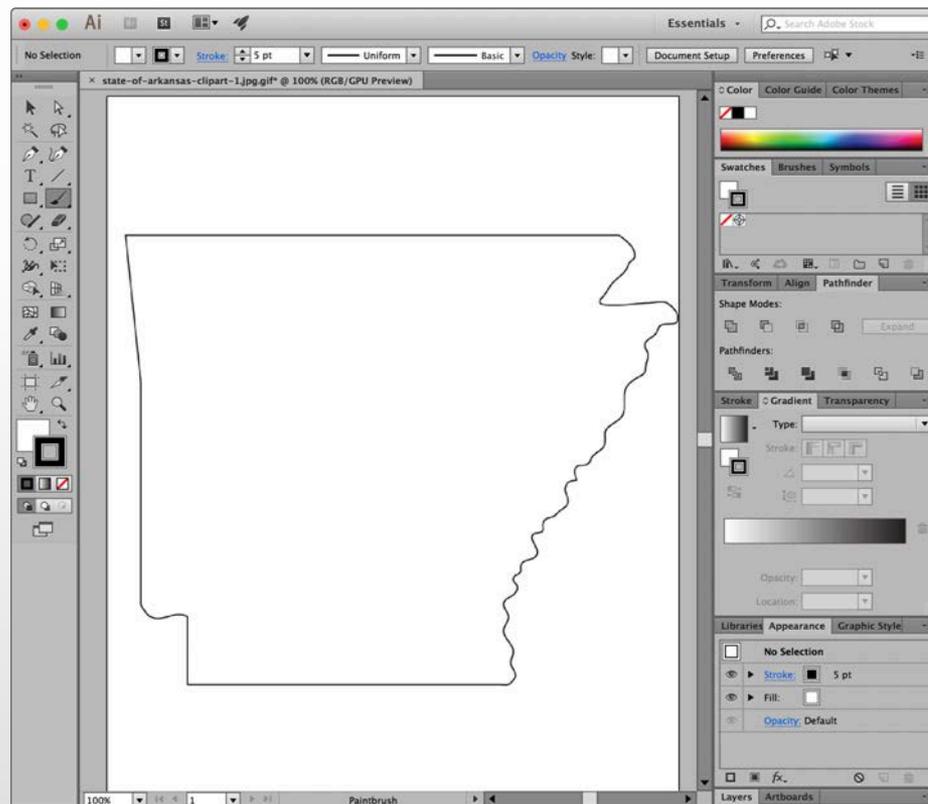
- Apply and draw with brushes to create artistic elements.
- Many options in options bar for brushes.
- Art History Brush allows you to use stylized strokes from a previous action.
- [Brush Tools](#) Video



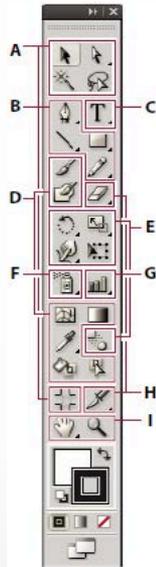
# PANELS IN ILLUSTRATOR WORKSPACE

The workspace is same as Photoshop with a few new tools and panels.

- Options Bar
- Document Panel
- Tools Panel
- Color Panel
- Layers Panel



# DM TOOLS PANEL



## A Selection tools

- Selection (V)
- Direct Selection (A)
- Group Selection
- MagicWand (Y)
- Lasso (Q)
- Artboard (Shift+O)

## B Drawing tools

- Pen (P)
- Add Anchor Point (Shift+)
- Delete Anchor Point (-)
- Convert Anchor Point (Shift+C)
- Line Segment (l)
- Arc
- Spiral
- Rectangular Grid
- Polar Grid
- Rectangle (M)
- Rounded Rectangle
- Ellipse (L)
- Polygon
- Star
- Flare
- Pencil (N)
- Smooth
- Path Eraser

## G Type tools

- T Type (T)
- Area Type
- Type On a Path
- Vertical Type
- Vertical Area Type
- Vertical Type On a Path

## D Painting tools

- Paintbrush (B)
- Blob Brush (Shift+B)
- Mesh (U)
- Gradient (G)
- Eyedropper (I)
- Measure
- Live Paint Bucket (K)
- Live Paint Selection (Shift+L)

## E Reshaping tools

- Rotate (R)
- Reflect (O)
- Scale (S)
- Shear
- Reshape
- Warp (Shift-R)
- Twirl
- Pucker
- Bloat
- Scallop
- Crystallize
- Wrinkle
- Free Transform (E)
- Blend (W)

## F Symbol tools

- Symbol Sprayer (Shift+S)
- Symbol Shifter
- Symbol Scruncher
- Symbol Sizer
- Symbol Spinner
- Symbol Stainer
- Symbol Screener
- Symbol Styler

## G Graph tools

- Column Graph (J)
- Stacked Column Graph
- Bar Graph
- Stacked Bar Graph
- Line Graph
- Area Graph
- Scatter Graph
- Pie Graph
- Radar Graph

## H Slicing and cutting tools

- Slice (Shift+K)
- Slice Select
- Eraser (Shift+E)
- Scissors (C)
- Knife

## I Moving and zooming tools

- Hand (H)
- Print Tiling
- Zoom (Z)

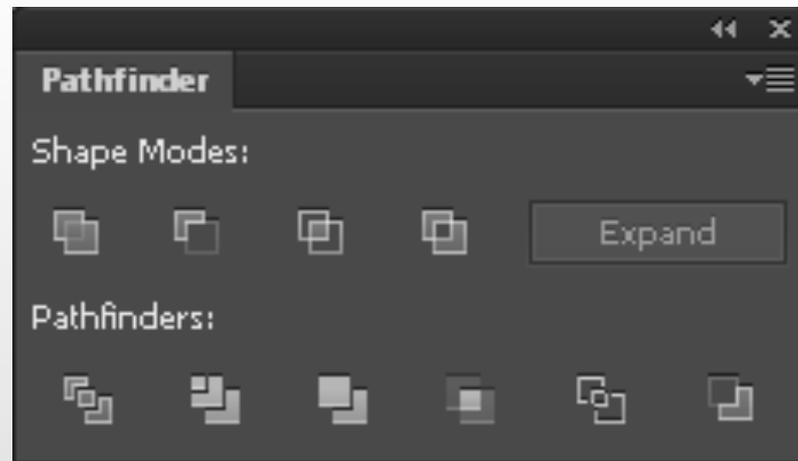
■ Indicates default tool

\* Keyboard shortcuts appear in parenthesis

- Tools grouped and hidden similar to Photoshop.
- Note new Illustrator tools.

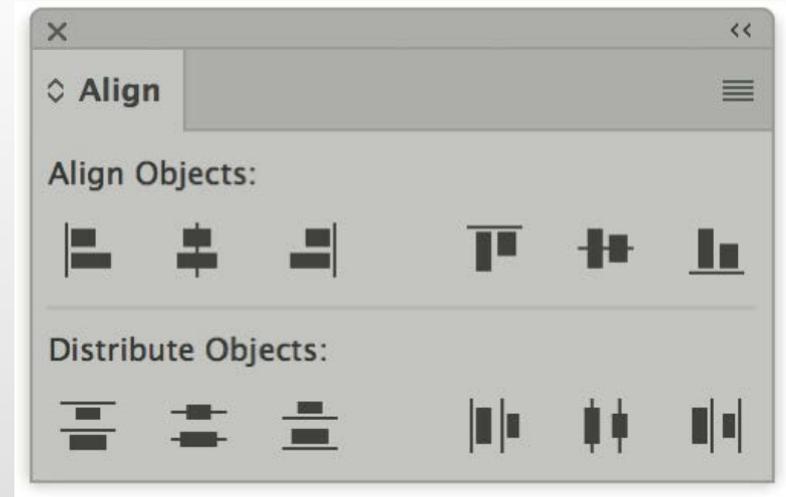
# DM **PATHFINDER PANEL**

- Use to combine objects into new shapes.
- Use the top row of buttons in the panel to make paths or compound paths.



# DM **ALIGN PANEL**

- Align or distribute selected objects along the axis you specify.
- Can use either the object edges or anchor points as the reference point, and you can align to a selection, an artboard, or a key object.





# DM

## **QUESTIONS TO CONSIDER**

- Explain how creating compound shapes using the pathfinder panel allows you to add, subtract, intersect and exclude.
- Discuss how rotations of  $45^\circ$  and  $90^\circ$  could be quicker when holding down the SHIFT key.
- Summarize the difference between positioning objects in relation to each other using the Align panel versus gridlines.



Raster (PNG)



Vector (SVG)

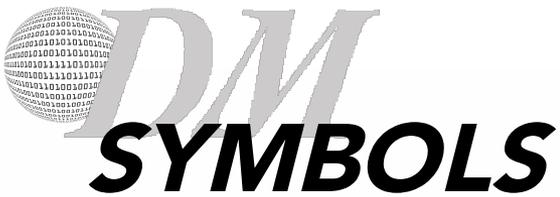
## ***VECTOR IMAGES***

Use mathematic equations and geometric elements (points, lines, and shapes) to create art.

Can be scaled infinitely, without any loss of quality or fidelity.

Watch this video:

<https://helpx.adobe.com/illustrator/how-to/what-is-illustrator.html?set=illustrator--get-started->

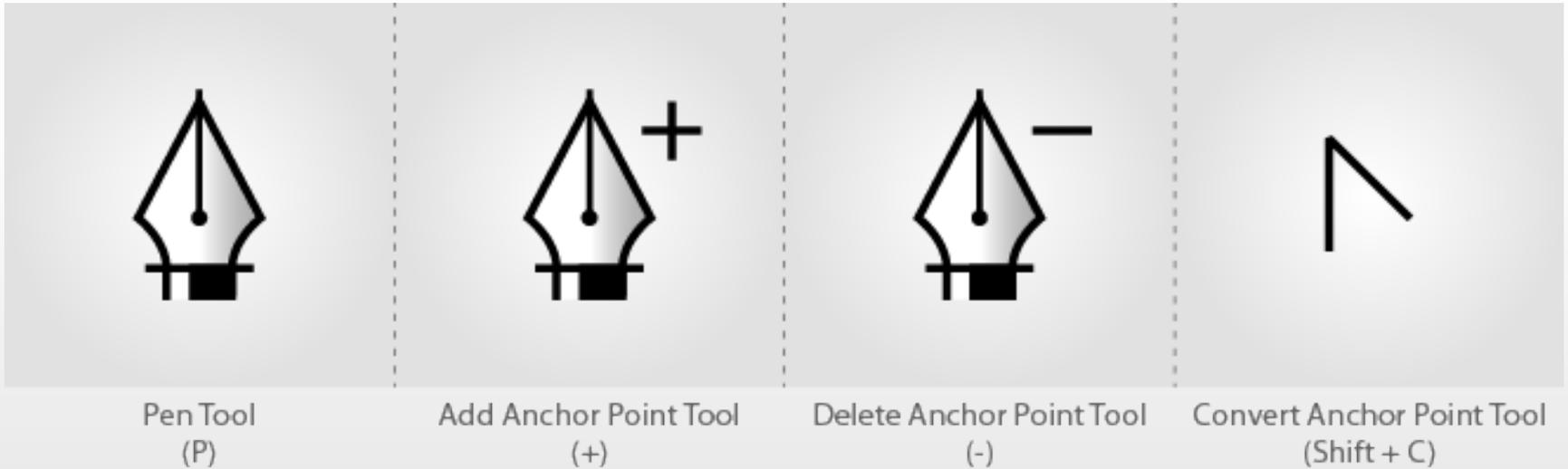
The logo features a circular icon on the left containing binary code (0s and 1s). To its right, the letters 'DM' are written in a large, light gray, stylized font. Below 'DM', the word 'SYMBOLS' is written in a bold, black, sans-serif font.

# DM SYMBOLS

- A symbol is an art object that you can reuse in a document.
- If you create a symbol from a leaf, you can then add instances of that over and over again without actually adding the image multiple times.
- Each symbol instance is linked to the symbol in the Symbols panel or to a symbols library.
- Using symbols can save you time and greatly reduce file size.

# DM PEN TOOL

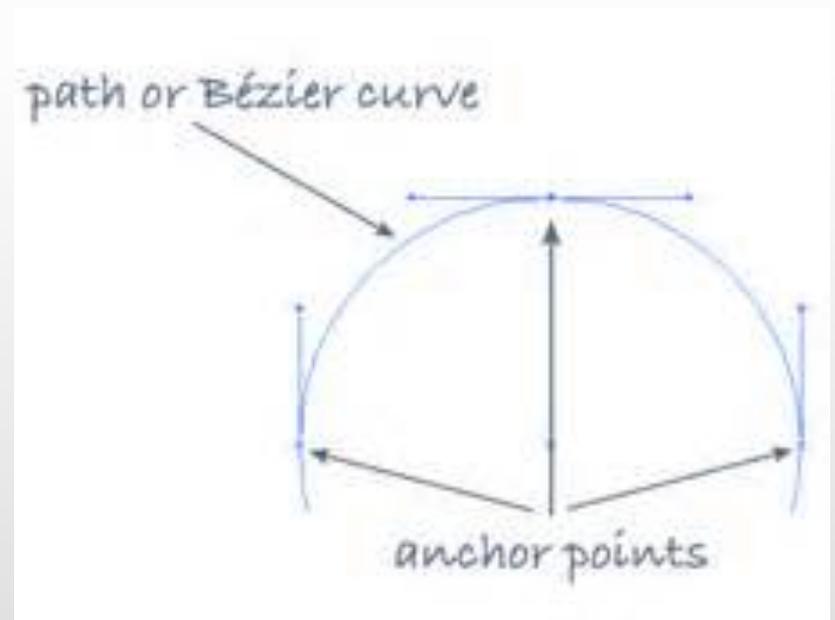
- Use the pen tool to add and delete anchor points.



[vectortips.blogspot.com](http://vectortips.blogspot.com)

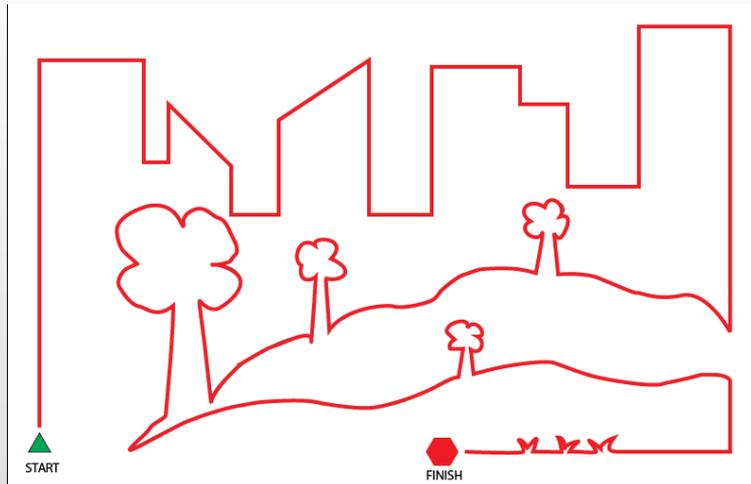
# DM ANCHOR POINT

- A point on a path that indicates a change of direction.
- You can add anchor points or delete anchor points to change the shape of a path.



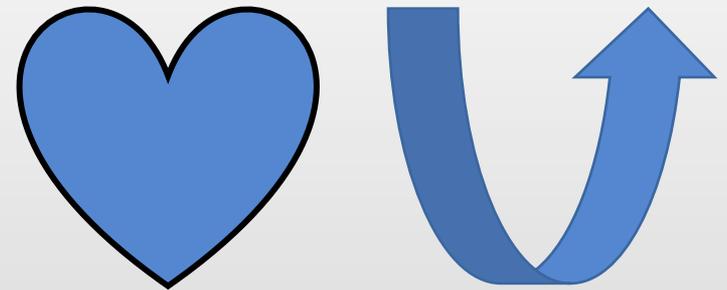
## Open Path

- Open paths do not end. They don't connect back to the original anchor point.



## Closed Path

- A closed path has the same beginning and ending point.
- It forms a complete shape that can be filled with color or text.

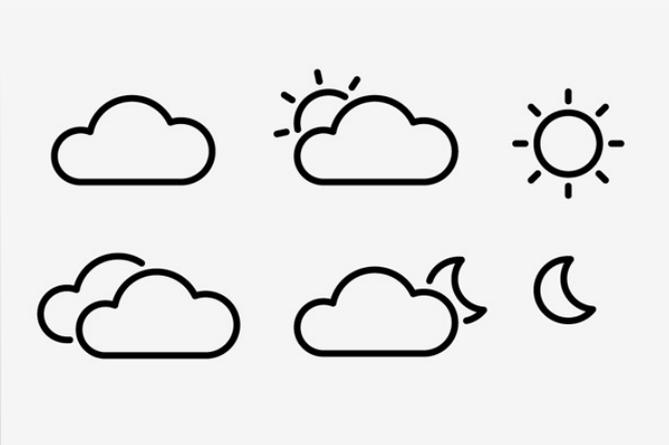




# FILL AND STROKE

## Stroke

- Stroke is the outline of a shape, text or image.
  - Weight
  - Color
  - Style



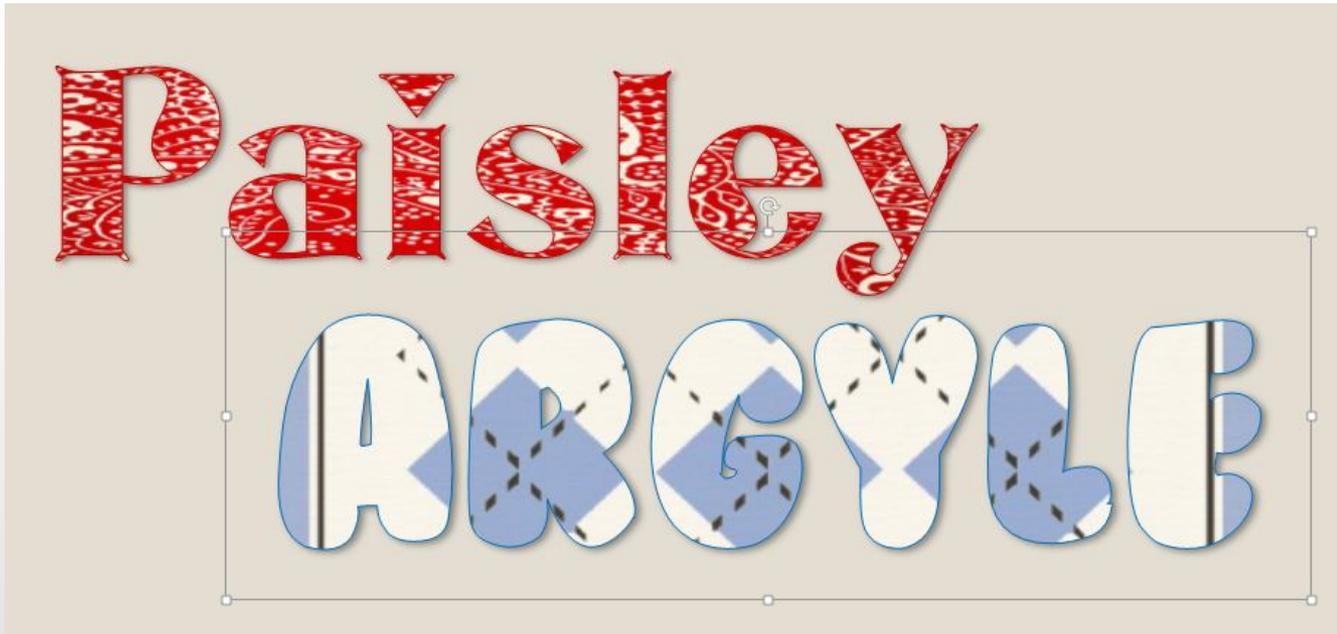
## Fill

- Fill is the inside color of a closed shape.



# DM PATTERNS

- A repeating pattern fills the image with a unique assortment of shapes and colors.



# DM IMAGE TRACE

- Use the Image Trace to trace and vectorize an image.
- Watch this video:
  - <https://youtu.be/NsHPoyyNKrY>



*Left: the original bitmap image.  
Right: after tracing it with the Live Trace  
command.*



## ***QUESTIONS TO CONSIDER***

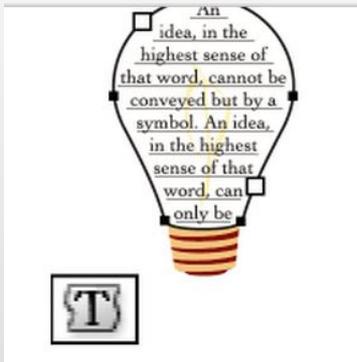
- Identify three or more raster graphic image file types that could be converted into vector artwork.
- Discuss how a strong understanding of the swatches panel is important when creating patterns.
- Differentiate between saving items to the symbol library and linking graphics.



# AREA VS. POINT TYPE

## Area Type

- Area type fills the text in a closed path.
- Use this when you want text to appear inside a shape or object.



## Point Type

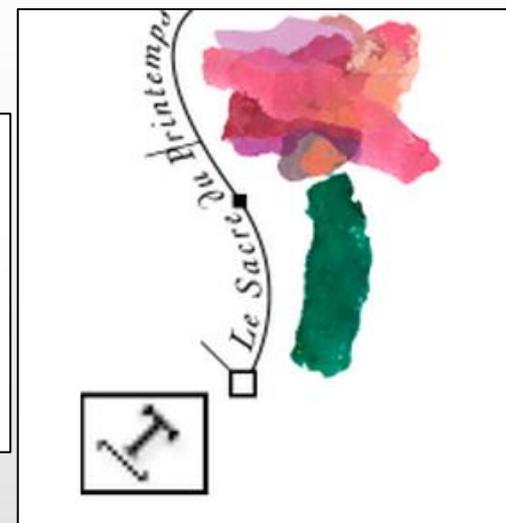
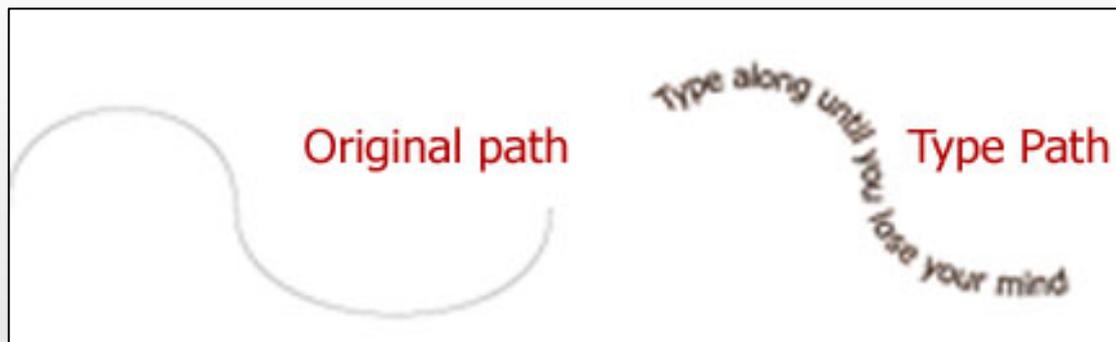
- Point type begins right where you click and does not automatically wrap to the next line.
- [Area vs. Point Type video](#)





# TYPE ON A PATH

- The text flows along an open or closed path.
  - Horizontally, the characters are parallel to the baseline.
  - Vertically, the characters are perpendicular to the baseline.





## ***QUESTIONS TO CONSIDER***

- How would text along a path change if the baseline shift was a negative number?
- Predict the spacing change when the leading between baselines is increased? How would decreasing the leading change the type?
- Summarize how typing on a path can be used in both open and closed paths.