

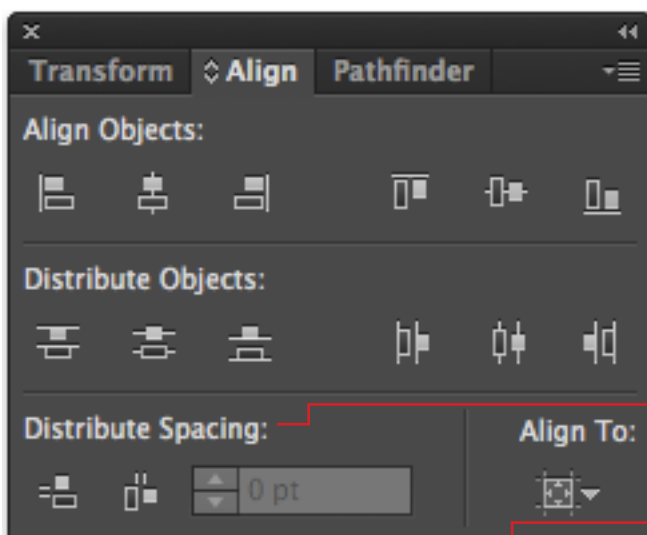
SPRING 2014 – ELIZABETH LIN

# PHOTOSHOP & ILLUSTRATOR BOOTCAMP

## ILLUSTRATOR

### ALIGNMENT

To access the alignment panel, go to Window -> Align. You should see a panel like the one below. This panel allows you to easily align objects in relation to each other or the artboard.



#### ALIGN TO

Align to Selection: The objects you have selected will align to themselves.

Align to Key Object: The objects you have selected will align to a central object.

Align to Artboard: The objects you have selected will align to the artboard.

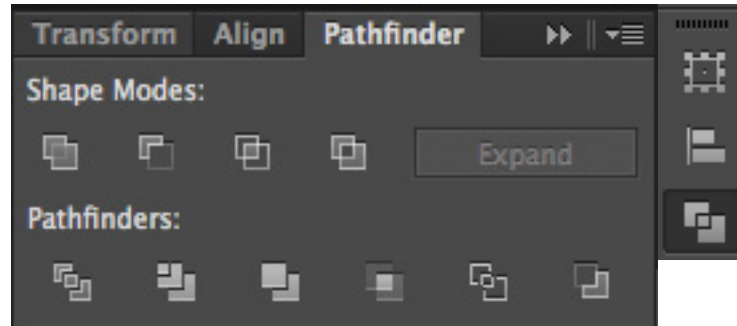
#### DISTRIBUTE SPACING

These tools will evenly distribute the spacing between the selected objects.

Align to Selection  
Align to Key Object  
✓ Align to Artboard

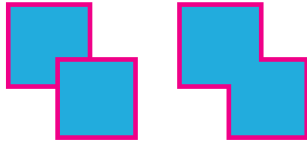
# PATHFINDER

To access the Pathfinder panel, go to Window -> Pathfinder. The Pathfinder panel is used to combine various paths and shapes together



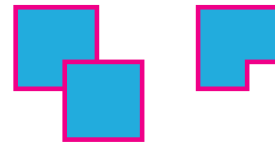
## UNITE

Adds selected shapes together that are overlapping.



## MINUS FRONT

Subtracts topmost object from bottom object.



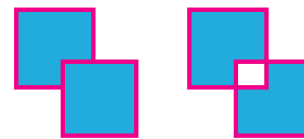
## INTERSECT

Only keeps sections where the selected shapes are overlapping.



## EXCLUDE

The opposite of intersect, only keeps sections where the selected shapes are not overlapping.



## DIVIDE

Creates new paths where selected paths overlap.



## TRIM

Removes sections of paths that overlap.



## MERGE

Combines overlapping paths that have an identical fill.



## CROP

Top object serves as a 'frame.' Everything below is cut to the frame shape and size.



# DUPLICATION

There are a few ways to duplicate objects in Illustrator:

## CLICK-ALT/OPT-DRAG

Select (V) an object. While holding down the alt/option key, drag the object to the desired location.

## PASTE IN FRONT (Cmd/Ctrl-F)

This will paste a duplicate object in front of the copied object.

## PASTE IN BACK (Cmd/Ctrl-B)

This will paste a duplicate object behind the copied object.

## PASTE IN PLACE (Cmd/Ctrl-Shift-V)

This will paste a duplicate object in the same location as the old object. This is useful when working on different artboards or documents.

# PEN TOOL

This tool allows you to trace/draw virtually anything through creating anchor points



**Pen Tool (P):** This is the default mode of the pen tool. This tool allows you to draw paths through the creation of anchor points.



**Add Anchor Point (+):** This allows you to add anchor points along a path.



**Delete Anchor Point (-):** This allows you to delete an existing anchor point.



**First Point:** The pen tool with the small x appears when you are starting a completely new path.



**Close Path:** The pen tool with the small o appears when you are closing a path. Generally, this is when you click your starting point again.



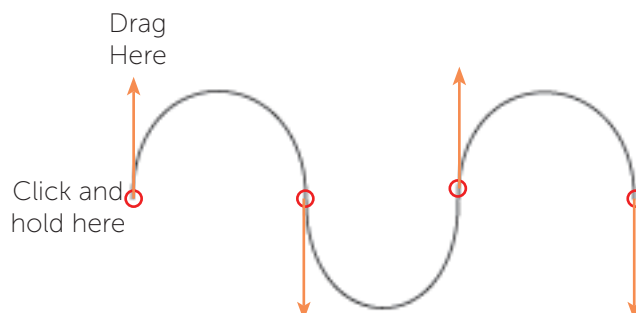
**Continue Path:** The pen tool with the slash appears when you are continue an existing open path.



**Convert Anchor Point (Shift-C OR while using Pen Tool, hold Alt/Opt):** This tool will convert an anchor point from curved to straight or from straight to curved by clicking on a point.

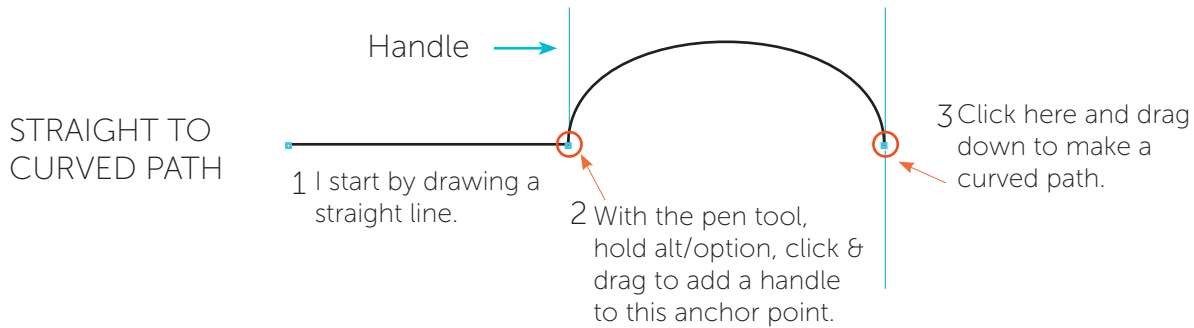
# CURVED PATHS

To draw a curved line, click and drag in one motion. The point you click will serve as the curve's center, the handles that appear affect the curve's shape and size. Constraining the movements using the shift key also applies to curved lines.



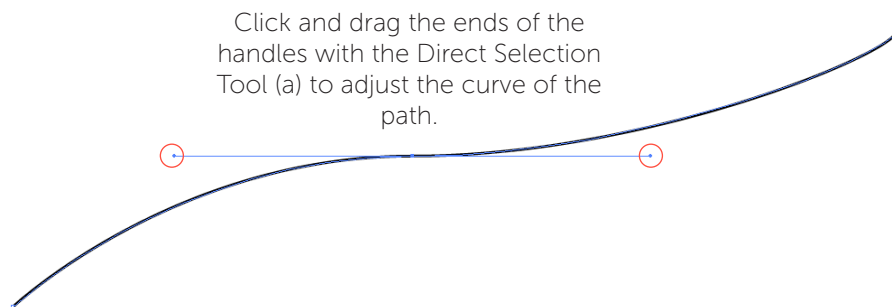
## CURVED & STRAIGHT PATHS

You can also draw lines with both curved and straight segments. To do this, you'll need to use the Alt/Option key while drawing with the pen tool to convert certain anchor points. Here is an example.



## EDITING PATHS

If you mess up along the way, it's okay, you can always go back and edit your paths. Most edits can be done through the Direct Selection Tool (A). With the Direct Selection Tool, you can double click any anchor point and adjust its location just by dragging. You can also edit handles with the Direct Selection Tool. To edit a handle, click and drag the endpoints of the handle.



You can also go back and change whether an anchor point is curved or straight. You do this by using the Convert Anchor Point Tool (Shift-C). If you want to convert a curved anchor point to a straight one, just click the anchor point. If you want to convert a straight anchor point to a curved anchor point, click and drag. When you click and drag, handles should appear.

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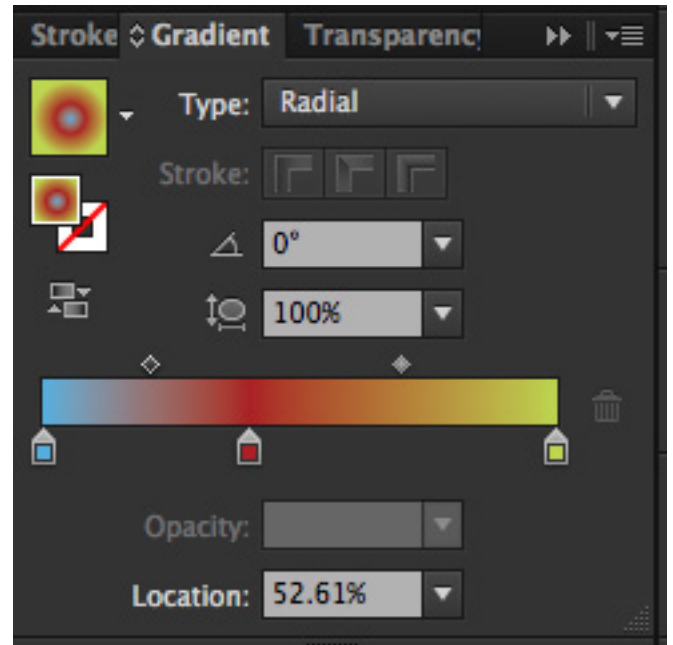
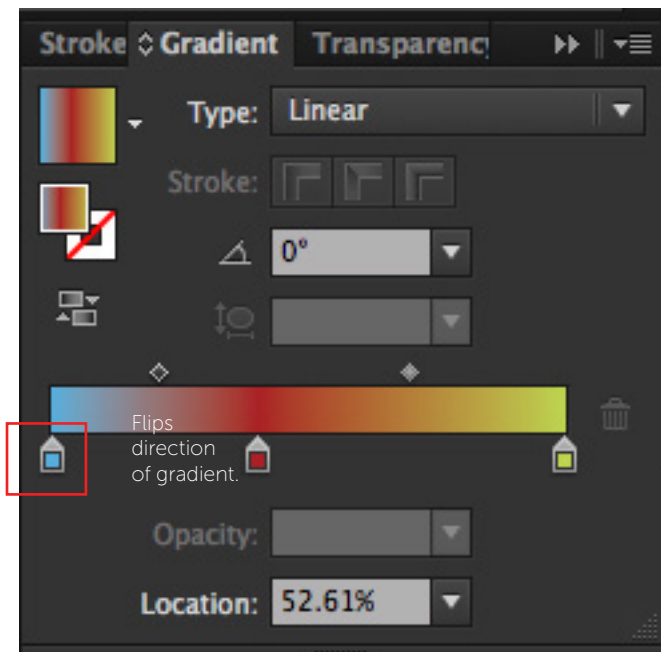
### Here is a recap of the important Pen Tool Keyboard shortcuts:

1. Hold Shift to constrain movements to 45, 90, 135, & 180 degree angles.
2. Pen tool + Alt/Option: pen tool becomes the Convert Anchor Point Tool.
3. Pen tool + Command/Ctrl + Hover over handle: allows you to edit the handle.
4. Pen tool + Command/Ctrl + Click: allows you to start a new path

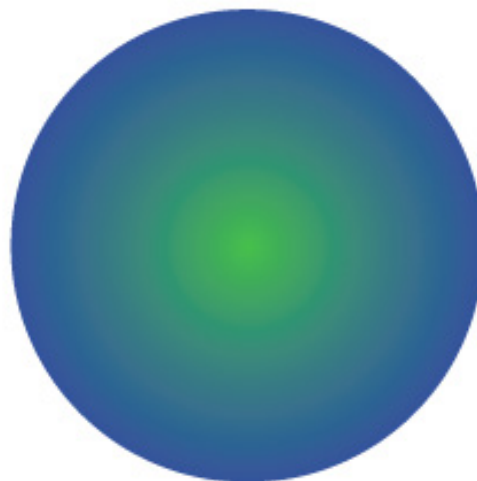
## GRADIENTS

Gradients in Illustrator can have up to 32 colors. You can adjust the opacity levels of each gradient stop. In CS5.5 and below, gradients can only be applied to Fills. Gradients can also be applied to strokes in CS6.

1. Select a gradient stop by clicking the little triangle above the swatch.
2. Add a stop by clicking any point below the gradient bar. A plus sign should appear next to your cursor as you hover.
3. Edit a stop by double-clicking a it. A new color selection panel should appear. If the panel only contains Grayscale colors, click the menu icon in the top right corner and change the color scheme selection to whichever one you want to work in (most likely CMYK). You can also slide the diamond between stops. This will change the location of the gradation.
4. Delete the active stop (denoted by a black triangle above the stop) by clicking the trash can icon .

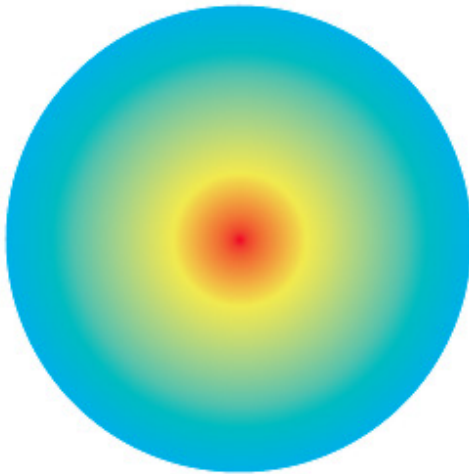


The Type dropdown menu will let you choose between Linear and Radial gradients.

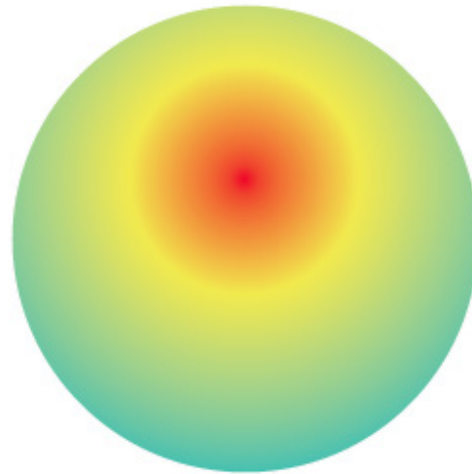


## GRADIENT TOOL (G)

The Gradient Tool (G) allows you to quickly edit a gradient. With the Gradient Tool, you can change the location of a gradient when you have an object selected.



Default Gradient

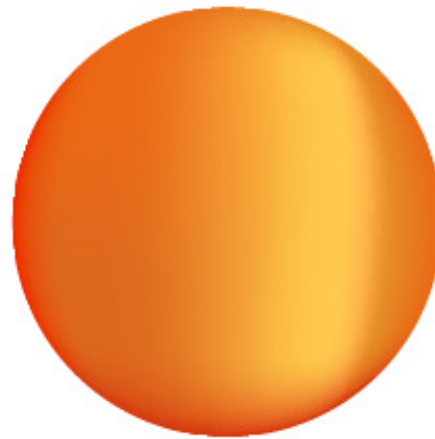


After Gradient Tool



## MESH TOOL

Click on any shape with the Mesh Tool to create paths within your existing shape. Selecting anchor points and choosing different colors can result in realistic, nuanced coloring.

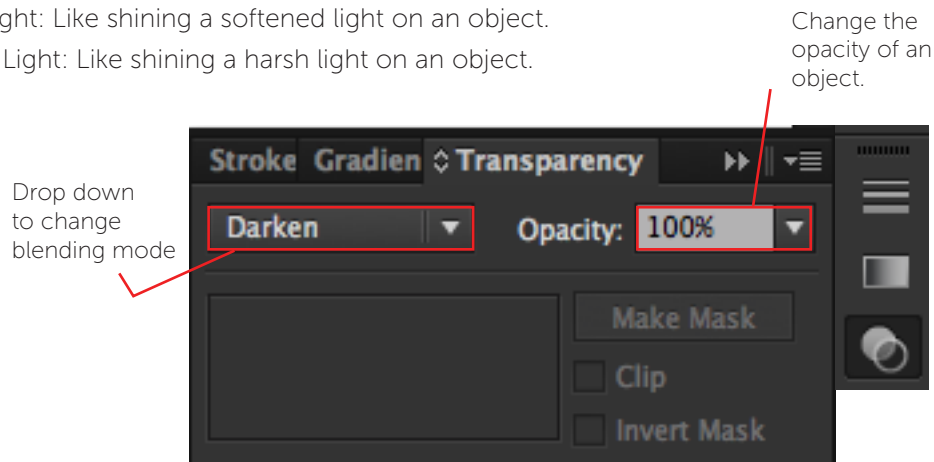


# TRANSPARENCY PANEL

## BLENDING MODES

There are 16 blending modes. They all have specific definitions, but usually, you can just experiment with them to figure out which one looks best in a particular context. Here are definitions for the first 10.

1. Normal: No interaction with the base color, only the blend color results. This is the default mode.
2. Darken: Uses the darker color (base or blend) as the resulting color.
3. Multiply: Multiplies the base color by the blend color, creating a darker color.
4. Color Burn: Darkens the base color with the blend color.
5. Lighten: Uses the lighter color (base or blend) as the resulting color.
6. Screen: Multiplies the opposite color of the blend and base colors, creating a lighter color.
7. Color Dodge: Use this to lighten and brighten the base color.
8. Overlay: Either multiplies or screens depending on the base color.
9. Soft Light: Like shining a softened light on an object.
10. Hard Light: Like shining a harsh light on an object.

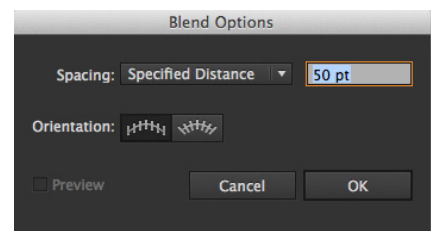
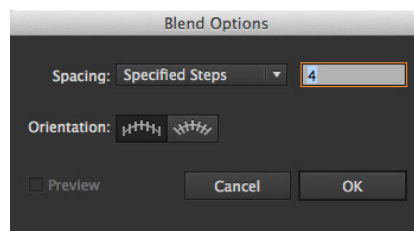
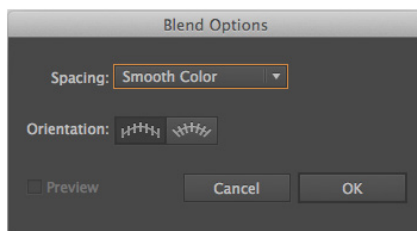


## BLEND TOOL

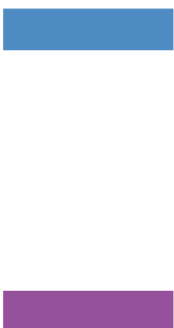
The Illustrator Blend Tool can be used to blend colors as well as shapes.

## BLEND OPTIONS

Double Click the Blend Tool or go to Object -> Blend -> Blend Options to see Blend Options.



Starting shapes



Smooth Color



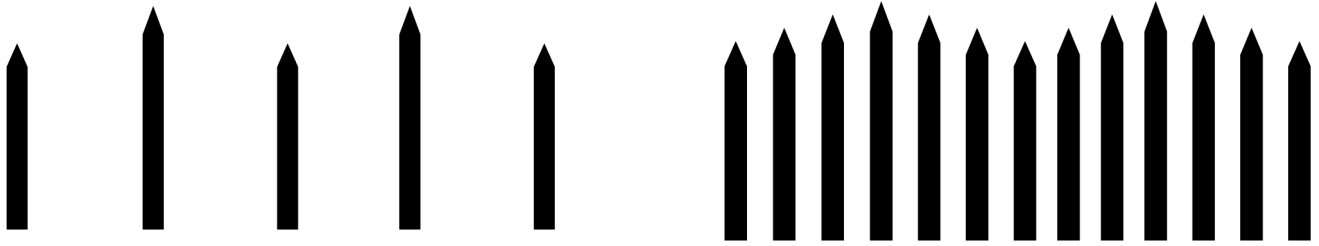
Specified Steps (4)



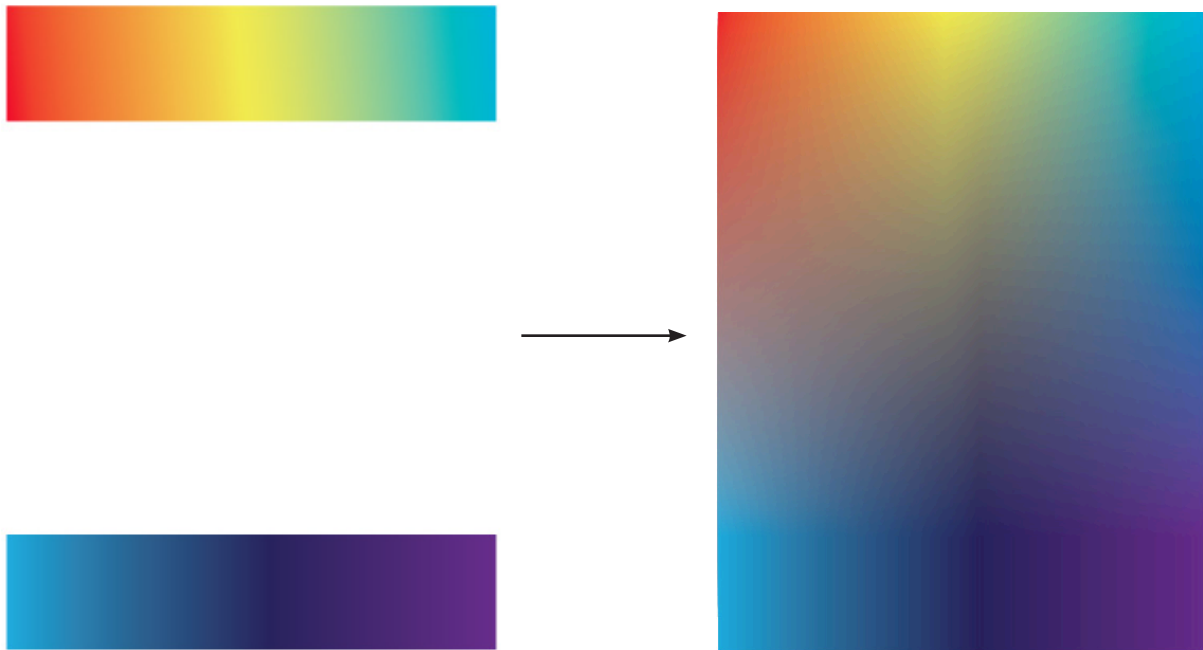
Specified Distance (50px)



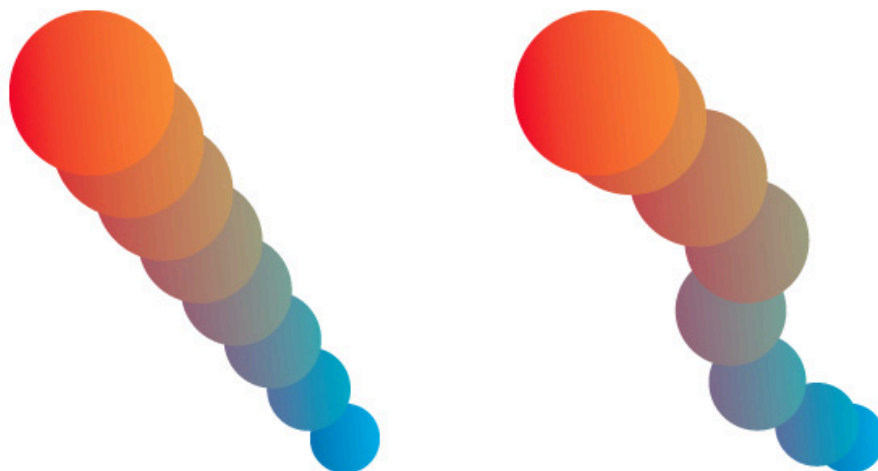
You can also blend multiple shapes together. Just select all the objects you want to blend. In the example below, I used specified distance to create a fence from the starting three planks.



You can also blend two gradients together by double clicking the Blend Tool, setting Spacing as Specified Distance, and then inputting a very small distance.



After applying a blend, you can also modify the path the blend follows by using the Direct Selection Tool (A) to modify the path.





# PHOTOSHOP

## SELECTION

Photoshop selection is very different from Illustrator selection. Because the software is pixel-based, you select pixels instead of selecting vector objects.



### MOVE (V)

Allows you to move objects in the selected layer around in the canvas.

## INVERSE SELECTION

You can select the inverse of your selection by going to Select -> Inverse (Cmd-Shift-I).

## DESELECTION

To deselect something, press Cmd-D



### MAGIC WAND

The magic wand tool selects pixels based on tone and color. Generally, it's frustrating to use because it seems impossible to control since it selects all pixels close or similar to the area that has been clicked. To add more to the selection, hold shift while using the magic wand tool.



### QUICK SELECTION

Quick selection also chooses pixels based on tone and color, in addition to spotting edges. Finding an image with a strong contrast between the main subject and the background is best for this tool. Quick selection samples an area, and basically selects textures that are similar to the sample. Unlike magic wand, you can essentially paint over an area (as opposed to a single pixel), and that area will be the sample.



### PEN TOOL

Pen tool works the same way as in Illustrator. In Photoshop, the Pen Tool can be used to make really precise selections. After drawing a path with the Pen Tool, you can easily make a selection by Right-clicking and selecting "Make selection."



### MARQUEE (M)



Allows you to select part of a canvas in a specific shape. The default is a rectangle. If you hold down the tool, you will be given other shape options. Holding down Shift with M will rotate through the marquee tools.



The Control Panel options for Marquee allow you to (1) Make a New Selection, (2) Add to a Selection, (3) Subtract from a Selection, or (4) Intersect with a Selection. You can also change the Feather of the selection (blurriness of the edges.)

## A FEW RANDOM TOOLS



### Crop Tool (C)

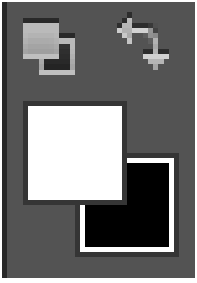
Crops the artboard.



### Eyedropper Tool (I)

Gets the color of clicked area.

## FOREGROUND/BACKGROUND



Unlike Illustrator, Photoshop does not have a Fill & Stroke. Instead, Photoshop uses a Foreground & Background color. Generally, only the foreground color is used, but certain effects require a Background Color.

To switch between Foreground & Background, the shortcut is X.

To go back to the default Foreground White and Background Black, press D.

## RETOUCH & HEAL TOOLS

### Spot Healing Brush Tool (J)

The Spot Healing Brush is good for removing quick blemishes. You can just paint over unwanted pixels and it will calculate a new image based on the surroundings. This works well for a background that is less busy.



### Healing Brush (J)

The Healing Brush is like the Spot Healing Brush except it allows you to pick a source for the repair. To select a source, alt-click a region. Then, when you apply the brush on an area, the area will be filled with the selection.





### Patch Tool (J)

An entire area can be replaced with the patch tool. First, draw a selection with any of the Selection Tools and select the Patch Tool. Then, drag the selection over the destination you want to use to repair the area.



### Clone Stamp Tool (S)

Allows you to paint with a sample of an image. First, select a source by alt-clicking. Then, paint as you wish.



### BLUR TOOL

The Blur Tool does what it says on the tin - it blurs out sections of your photo or artwork. You can manage the strength of the blur with the strength option.

### SHARPEN TOOL

The Sharpen Tool tightens up pixels that you select.

### SMUDGE TOOL

The smudge tool takes a colour that you select and smudges it into wherever you draw.

### DODGE TOOL

Lightens the pixels you paint.

### BURN TOOL

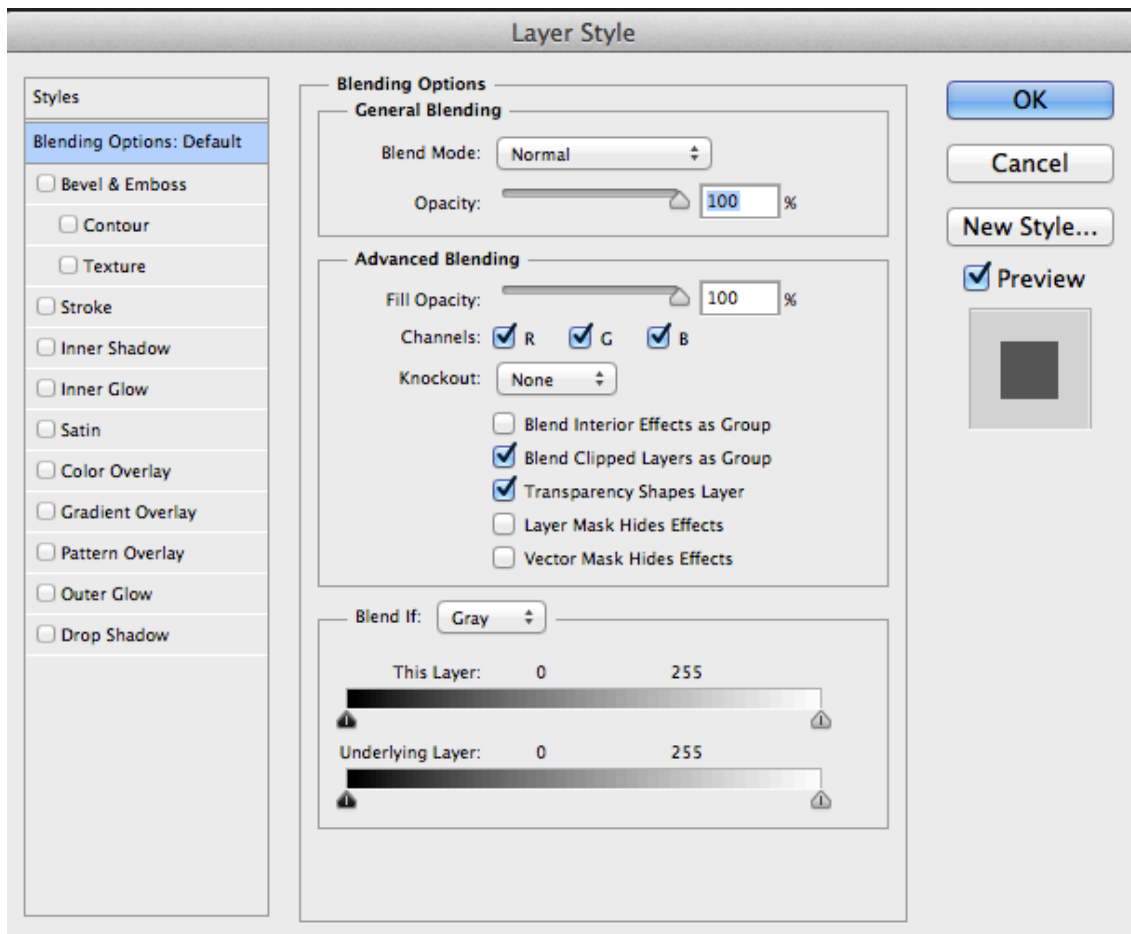
Darkens the pixels you paint.

### SPONGE TOOL

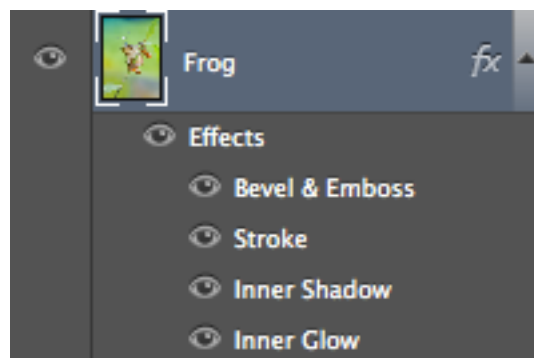
Saturates or desaturates pixels you paint.

# LAYER STYLES

Layer Styles are similar to Graphic Styles in Illustrator. You can create a Layer Style and apply it on any layer in the future. If you apply a layer style, you can always go back and edit it. This is the Options Panel, you can access it by double clicking the layer you want to edit



To turn on an option, select the checkbox next to the name. To edit an option, click the name of the option. If you click the name, the color should turn blue when it is active. When you apply an effect, you should see it in your Layers Panel. You can toggle its visibility, but also edit it by double-clicking.



Note:

You cannot apply a Layer Style to a locked layer.

You can copy a Layer Style to another layer by right-clicking and selecting Copy Layer Style.

# BLEND MODES

Blend modes let us blend layers together which is useful for editing and retouching photos. Using the Opacity, you can make the active layer translucent. The Blend Modes in Photoshop are similar to just changing the opacity but it also allows a wider variety in changing the active layer. Each type is non destructive meaning you can delete it and change it any time (unless you merge them with some other layer of course).

## Blend Mode Groups

Normal	{	Normal Dissolve
Darken	{	Darken Multiply Color Burn Linear Burn Darker Color
Lighten	{	Lighten Screen Color Dodge Linear Dodge (Add) Lighter Color
Contrast	{	Overlay Soft Light Hard Light Vivid Light Linear Light Pin Light Hard Mix
Inversion	{	Difference Exclusion
Cancellation	{	Subtract Divide
Component	{	Hue Saturation Color Luminosity

### OVERLAY

In this mode the blending color's pixels are placed over the base layer's pixels whilst maintaining the lightness and darkness of the base image.

### DARKEN

It darkens the base color. This mode uses the darkest color between the blend or base color in each channel, replacing the lighter pixels in either

### COLOR BURN

Photoshop looks at the color channel information and darkens the base color by increasing the contrast between the base and blend colors.

### MULTIPLY

Multiplies the base color by the blend color using the color information in each channel, which results in a darker color.

### DIFFERENCE

The blend color is subtracted from the base color or vice versa depending on the which has the greater brightness value. A less advanced version of this mode is Subtract, which simply subtracts the blend color from the base color

### SCREEN

Similar to Multiply in that it is multiplying each channel's color information but Screen inverts these colors before multiplying them together

### LINEAR DODGE (ADD)

Brightens the base color using the information in each channel's color information. The base color is brightened by increasing its brightness. The resulting images are very similar to those created by the Screen blending mode.