Blending modes

Photoshop and Elements allow for layer blend modes that change the way layers react with each other. Some of them you will use in every day work. If you have a photo that is too dark, for example, many times a quick fix is to duplicate the photo layer in the layers palette and change the duplicate layer mode to Screen. If a photo is too light it can sometimes be corrected by duplicating the photo layer and changing the layer mode to Multiply.

How do you know what layer blend mode to choose? Let's look at them and how they work, and take some of the mystery away! (Some. Not all.)

Color

Hue: Hue refers to the color...red, blue, etc.

The **primary, secondary, and tertiary** colors, or hues, are these colors at their full saturation or brightness; that is, there, there is no white, gray, or black added.

Value: the lightness or darkness of a color, or the relative amount (percentage) of white or black in a hue.

Luminosity, or Lightness: A measure of the amount of light reflected from a hue. Those hues with a high content of white have a higher luminance, or value.

Tints: white when added in increments to any color results in a lighter value of that color, called a **tint**. Blue and white make light blue, which is a tint of Blue.

Shades: black or gray when added in increments to any color results in a darker value of that color, called a **shade**. Blue and Black make dark blue, a shade of blue.

Saturation: The degree of purity of a hue.

Intensity: The brightness or dullness of a hue. Iintensity maybe lowered by adding white or black.

The blending modes

In Photoshop and Elements the layer blend modes can be changed in the layers palette. In these programs, changing the layer blend mode affects the entire layer, even if you have a selection. In Illustrator the blend modes work basically the same, but a different blend mode may be applied to different objects on the same layer, so the blend mode popup is found in the transparency palette.

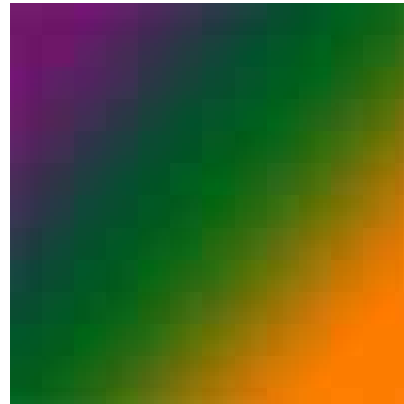|	
Layers \ Channels	The dropdown menu on the left contains the blend modes which we'll discuss fully in a minute.
Normal ▾	
Normal	Normal is the default, and the objects interact with each other as if they were both
Dissolve	solid color objects, at 100% opacity. When one is over the other, what is covered you
	can't see.
Darken	The rest of the modes interact with each other in different ways.
Multiply	
Color Burn	
Linear Burn	
Lighten	To use layer blend modes you have to have two or more layers. The blend mode will
Screen	react with the layer below it. If you have only a background, the blend mode popup
Color Dodge	will be grayed out, as these modes cannot be applied to backgrounds.
Linear Dodge	
Overlay	For these demos I will be using an image with two layers. The blending mode will be
Soft Light	applied to layer 1 and we'll look at the way they interact.
Hard Light	
Vivid Light	
Linear Light	
Pin Light	
Difference	
Exclusion	
Hue	
Saturation	
Color	
Luminosity	

The background   layer 1

Normal mode

Normal mode is the default. The colors of the two layers will not interact in any way, and it will display the full value of the colors in layer 1. What you see in the image window will look like this.

Dissolve

Dissolve makes the lower layer take on the colors of the top layer, and how much depends on the opacity of the upper layer. The layer 1 opacity is set at 50% here.

Disolve only affects pixels with some transparency, which is why I lowered the opacity to 50% in this example.
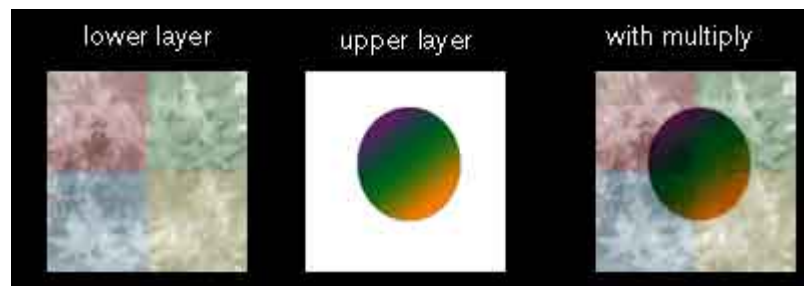
Darken

Darken compares each pixel value of the upper layer to its counterpart's pixel value of the lower layer and chooses the darker of the two to display.
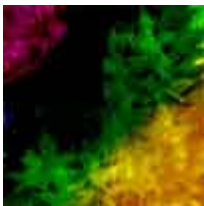
Multiply

Multiply darkens the lower layer based on the darkenss of the upper layer. No part of the image will get lighter. Any applied tone darker than white darkens the lower layer. White becomes transparent.

Color Burn

Color Burn burns in the color of the upper layer with the lower layer. No part of the image will get lighter.

Linear Burn

Linear Burn works like multiply but the results are more intense.

Lighten

Lighten compares the two layers pixel for pixel and uses the lightest pixel value. No part of the image gets darker.

Screen

Screen brightens by lightning the lower layer based on the lightness of the upper layer. The result is always lighter, and makes it a good mode for correcting exposure in photos that are too dark.

Color Dodge

Color Dodge dodges the lower layer with the upper layer, resulting in a lighter image. No part of the image will be darkened.

Linear Dodge

Linear Dodge works like screen but with more intense results.

Overlay

Overlay multiplies the light colors and screens the dark colors.

Soft Light

Soft Light will multiply the dark tones and screen the light tones.

Hard Light

Hard Light muliplies the dark colors and screens the light colors.
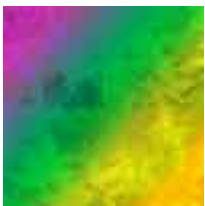
Vivid Light

Vivid Light will dodges or burn the lower layer pixels depending on whether the upper layer pixels are brighter or darker than neutral gray. It works on the contrast of the lower layer.

Linear Light

Linear Light is the same as Vivid light but it works on the brightness of the lower layer.

Pin Light

Pin Light changes the lower layer pixels depending on how bright the pixels are in the upper layer. It acts like Multiply when the upper layer color is darker than neutral gray, and acts like screen if the upper layer color is lighter than neutral gray.

Difference

Difference reacts to the differences between the upper and lower layer pixels. Large differences lighten the color, and small differences darken the color.

Exclusion

Exclusion uses the darkness of the lower layer to mask the difference between upper and lower layers.

Hue

Hue changes the hue of the lower layer to the hue of the upper layer but leaves brightness and saturation alone.
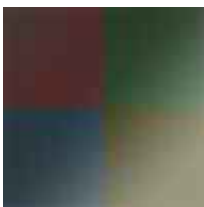
Saturation

Saturation changes the saturation of the lower layer to the hue of the upper layer but leaves brightness and hue alone.

Color

Color changes the hue and saturation of the lower layer to the hue and saturation of the upper layer but leaves luminosity alone.

Luminosity

Luminosity changes the luminosity of the lower layer to the liminodity of the upper layer while leaving hue and saturation the same.