



Republic of the Philippines
Department of Education
LEARNING ACTIVITY SHEET
SCHOOLS DIVISION OFFICE OF NUEVA ECIIJA

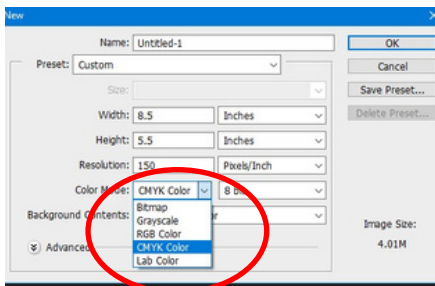
SPECIAL PROGRAM IN ICT 7 & 8
DIGITAL MEDIA 7 & 8
First Quarter, Week 7

Name _____ of _____ Learner: _____
Grade _____
Level _____ /Section: _____
Date: _____

Controlling Colors with Channels in Photoshop

BACKGROUND INFORMATION FOR LEARNERS

Color is the heart of Photoshop. Knowing how colors are made and how they relate to each other lets you work more viably in Photoshop. Upon opening Photoshop, you notice immediately that you have choices to make about color. The choice is presented to you when you create a new file, and it is ever-present the entire time you use the program.



Color Theory

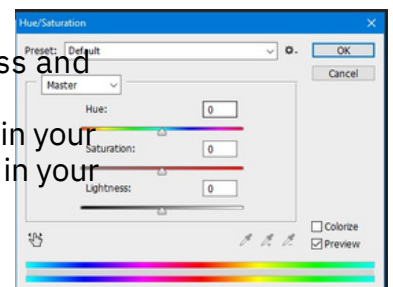
The first thing that you need to understand when we talk about colors in Photoshop is the basic color scheme or color theory. This is best illustrated in the color wheel.

1. Primary Colors- Red, Blue, and Yellow.
2. Secondary Colors- mixing two primary colors; Green, Orange, and Purple.
3. Tertiary Colors- mixing primary color with secondary color: Yellow-Orange, Red-Purple, Blue-Purple, Blue-Green, and Yellow-Green.



Hue, Saturation and Brightness (HSB)

In creating or manipulating an image, the color gives interest and aesthetics to the photo. You can use the hue, saturation, brightness and contrast from the tools available in Photoshop. The Hue/Saturation command in Photoshop Elements enables you to fine-tune the colors in your image created on their hue, saturation, and lightness. Hue is the color in your image. Saturation is that the intensity, or richness, of that color. And lightness controls the brightness value.



In Photoshop, the two terms related to colors are color mode and color channels. Color mode refers to the kinds of colours you'll be using in your image. It determines the color model to display and print images.

Color Modes:

1. *RGB*- refers to the three-channel color mode suitable for images to be viewed on the web: Red, Green, Blue
2. *CMYK*- Cyan, Magenta, Yellow, Black is the setting for images that will be printed to paper.
3. *Grayscale*- a black and white mode
4. *Lab*- This mode is based on how human eyes can see a color regardless of the mode RGB, CMYK, etc.

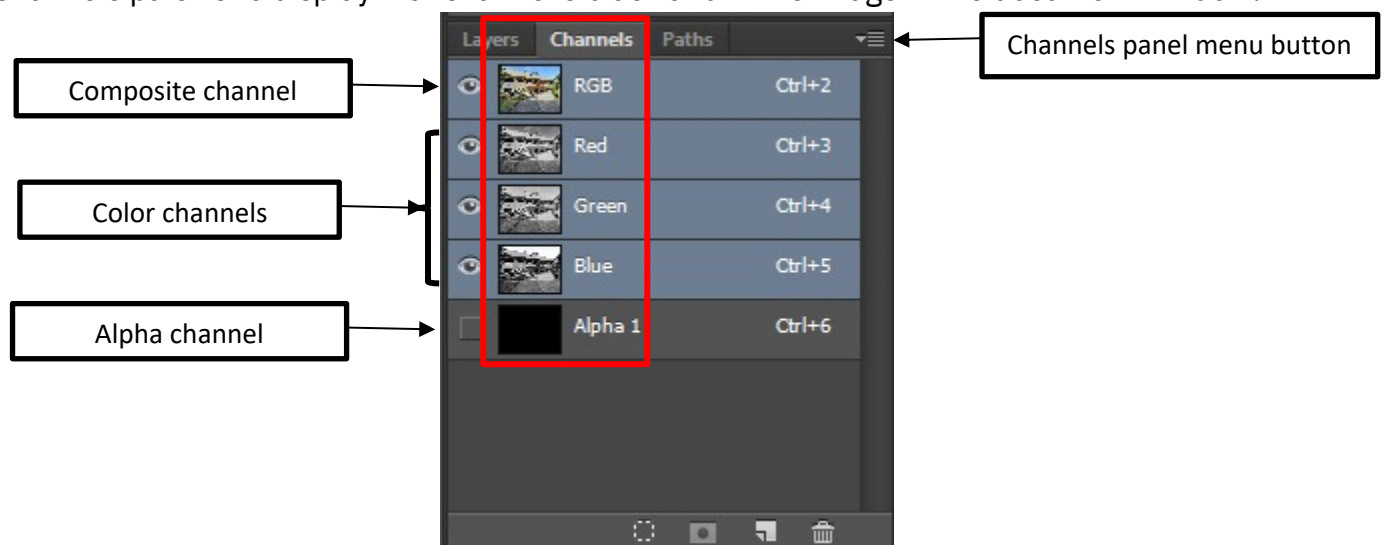
Photoshop also includes modes for particular color output like Indexed Color and Duotone.

Photoshop Channels

Photoshop uses channels to store color information about a picture or to store selections. The image's color mode determines the amount of color channels created. Basically, every image is made up of three color red, green and blue. Each of these colors has its own channel. So red has a red channel, green has a green channel and color blue has a blue channel.

Channel Panel

Channels has its own panel in Photoshop. It looks like the Layers palette, except that it shows color channel information instead of layers. You can see that there's one for Red, one for Green and one for Blue, and each one contains its own separate black and white version of the image. The channel at the very top, "RGB", isn't a channel in the least. It's just the composite of all three channels, giving us the complete color photo. You can click on any of the channels individually in the Channels palette to display that channel's black and white image in the document window.

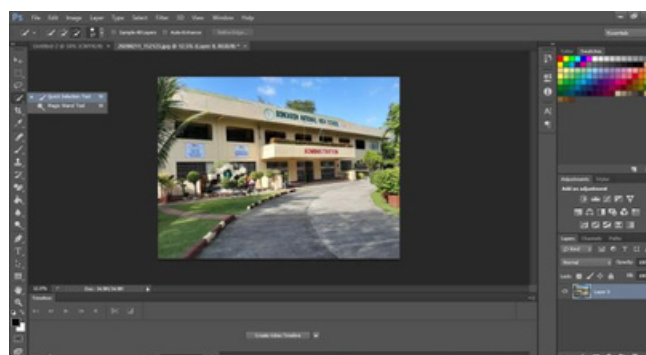


Alpha channel in Photoshop is a component that determines the transparency settings for certain colors or selections. Aside from Red, Green and Blue channels, alpha channel is used to control the opacity of the object or isolate the object from the rest of the image. It is an extra channel that sits alongside Red, Green and Blue channels. That is why it is also called RGBA.

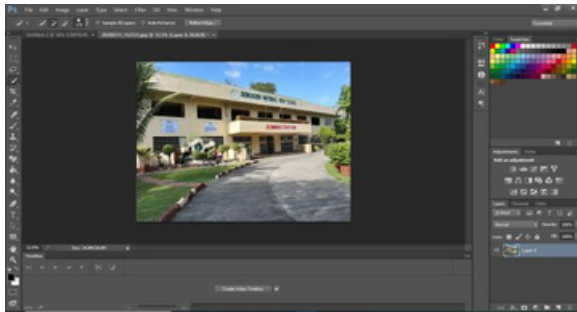
Creating an Alpha Channel

When using alpha channels, the image becomes RGB-A, and the -A channel behaves similar to a mask: wherever the mask is black, the image is 100% opaque, and wherever the mask is white, the image is 100% transparent. Let us add alpha channel within the given image:

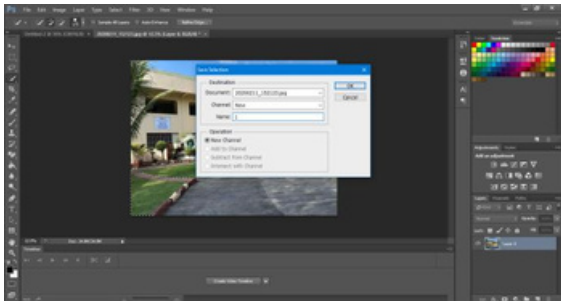
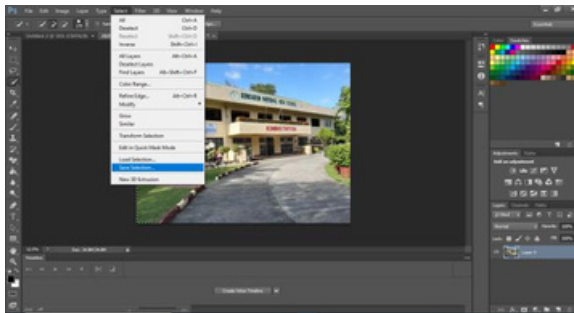
1. Select The Object. In the tools palette on the left, select the Quick Selection Tool.



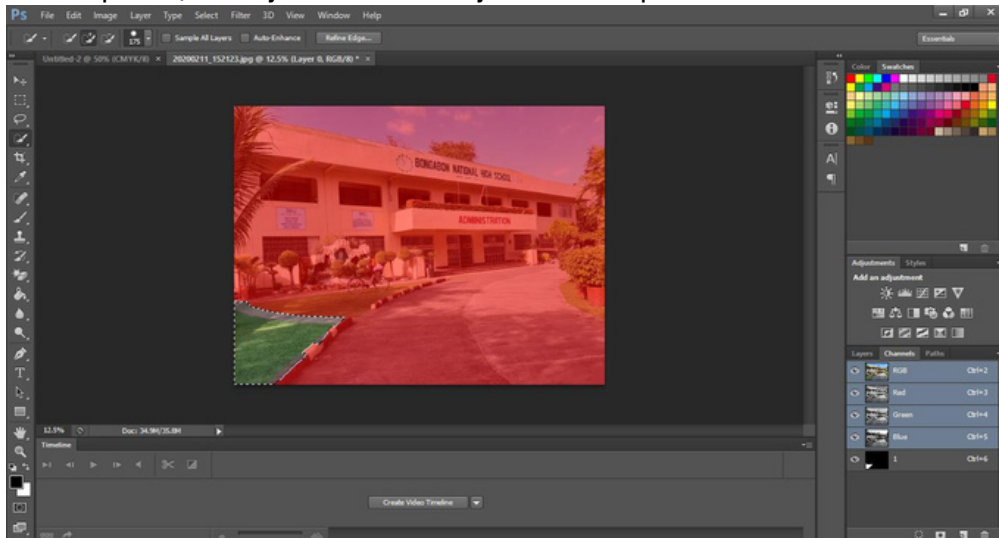
2. Then draw around the desired area until a dashed line appear on it.



3. Click Select menu on the top bar, then choose Save Selection. In the Save Selection dialog box, select New in the Channel option, choose a name for your selection then click OK.



4. Open Channels panel, then you will notice your new Alpha Channel.



LEARNING COMPETENCY

Enhance and edit colors with channels.

ACTIVITIES

ACTIVITY 1

Directions: Choose the correct answer inside the box. Write your answer on the blank.



Grayscale Color Mode Alpha Channel Color channel Colors
RGB CMYK Saturation Primary Colors Channels Palette Primary Colors Channels Palette

- _____ 1. The types of color you will be using in your image.
- _____ 2. The intensity or richness of color.
- _____ 3. The color mode suitable for images to be viewed on the web.
- _____ 4. The component that determines the transparency settings for certain colors or selections.
- _____ 5. The black and white mode.
- _____ 6. Red, Blue, Yellow
- _____ 7. The setting for images that will be printed to paper.
- _____ 8. It represents color layers.
- _____ 9. Channels to store color information about an image.
- _____ 10. The heart of Photoshop. It gives interest and aesthetics to the photo.

ACTIVITY 2

Converting Photos into Black and White using Color Channels)

- 1. Scan a picture of your family or using your smartphone take a photo of your family in any part of your house or garden.
- 2. From the Channel palette, select the best color channel that you think is best to have a black and white result.
- 3. Change the color mode into grayscale.
- 4. In the layer tab, select Adjustment level. Then you can adjust the level of black, white and midtones slider to achieve the black and white effect of your selected photo.
- 5. Save your work in jpeg format using filename: “Color_Channel_YourName.
- 6. Post your output in the link that will be given by your teacher.

Guide Questions

- 1. Why do we need to use color channels in editing a photo?

- 2. Explain how you change colors and add adjustments to improve the contrast and color of your photo.

ACTIVITY 3 (Layer Mask from Alpha Channels)

Directions:

- 1. Go around to your garden and take a photo of a beautiful plant.
- 2. Open your captured photo in Adobe Photoshop.
- 3. Add Alpha Channel.
- 4. Click the Quick Selection tool from the main toolbar.
- 5. Press CTRL+I to invert the selected area.
- 6. Click around the area that you want to adjust the brightness and contrast of your image.
- 7. From the channel palette select the best adjustment.
- 8. Change the adjustment.
- 9. Save your work in jpeg format using filename: “Alpha Mask_Your Name”
- 10. Post your output in the link that will be given by your teacher.

Guide Questions

- 1. Where do you think the alpha mask usually used?

Rubric for Scoring

CRITERIA	5	4	3	2
Color Balance	The choice of color mode, channel and adjustment improves the quality of the photo.	Color mode and adjustment are applied to the photo with appropriate color channel but some parts are too dark or light.	Color mode and adjustment are applied to the photo but not in the best color channel.	Only one (1) adjustment is used to edit the photo.
Image Quality	Photo captured is in high resolution and correct exposure for the setting.	Photo captured has a correct exposure and adequate brightness. .	Some part of the photo taken are too dark or too light.	Photo taken is too light or too dark.
Creativity	The final output reflects exceptional degree of student creativity.	The final output reflects student creativity in their creation and/or display	The final output is based on the designs or ideas of others.	The final output do not demonstrate any original thought or creativity.

REFLECTION

In life, colors are important. How can you describe the significance of colors in your life?

REFERENCES

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