LEARNING ACTIVITY SHEET
SPECIAL PROGRAM IN ICT 7&8
DIGITAL MEDIA 7&8
2nd Quarter, Week 1

Name of Learner:_____

GradeLevel/Section:_____Date:_____

Correcting Color and Lighting

BACKGROUND INFORMATION FOR LEARNERS

In Photoshop there is a huge range of colour and lighting adjustments that can be apply various effects to your photos and graphics. As you design in Photoshop you will often need to use color and lighting adjustments in order to satisfy your creative decisions.

There are two different ways in applying adjustments in Photoshop.

1. Run the adjustment on the current active layer, in which case Photoshop permanently applies the change to your image.

2. Use Adjustment layers, wherein the change happens on a separate layer, thereby preserving your original image and giving you the ability to tweak the adjustment later by popping open its Properties panel.

The following are the three categories of brightness values that makes up your images:

- **Shadows** – are created when light is blocked. Rarely jet black, shadows can be different colors depending on how much light is blocked.

- **Highlights** - represent the lightest or brightest parts of an image, where the light is at full strength. When the picture is overexposed, the highlights are described as blown out.

- **Midtones** - all luminance values that are not dark or light. By enhancing midtones, you can increase the contrast and the details in an image.

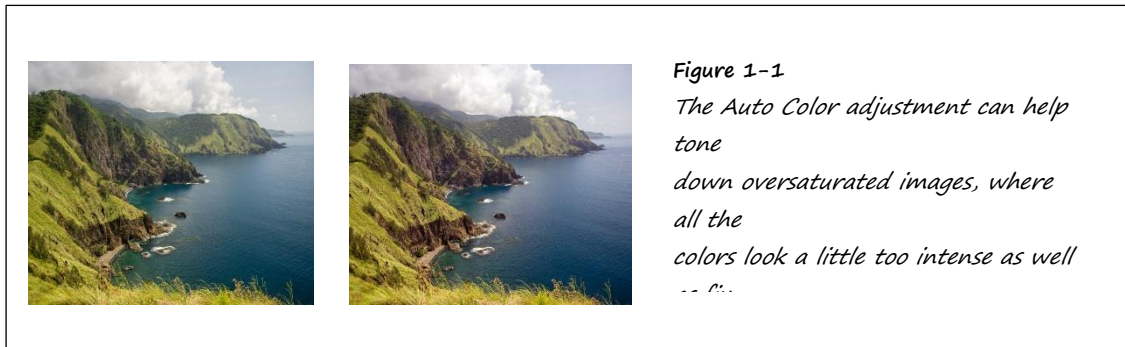*All the color and lighting fix-uppers covered in this lesson use this terminology.

FIXING COLOR

These are the methods to follow when your image looks flat or has a noticeable color cast.

- Auto Color – If the color of your image looks a little yellow, this command can help (see Figure 1.1).

- If your image has a color cast(everything looks a little yellow), this command can help(see Figure 1-1). To use it:
  1. Duplicate your image layer by pressing **Crtl+ J** on a PC
  2. Choose Image →Auto Color or press **Shift + Crtl +B** on a PC.

This command works only on images that are in RGB mode, so if the menu item is grayed out, choose Image → Mode → RGB color first.

Figure 1-1
The Auto Color adjustment can help tone
down oversaturated images, where all the
colors look a little too intense as well

COLOR BALANCE

By shifting the highlights, midtones, and shadows to opposite sides of the colorwheel, it changes the overall mixture of colors on an image or selection.

Photoshop gives you lots of ways to summon the Color Balance adjustment:
1. Choose Layer →New Adjustment Layer →Color Balance.
2. In the Adjustment panel, click the Color Balance icon (it looks like a scale).
3. Click the half-black/half white circle at the bottom of the Layers panel and then choose Color Balance from the pop-up menu.

FIXING LIGHTING

Several tools that can help fix almost any lighting problem in Photoshop.
1. **Auto Tone** If your image needs a *little* lighting boost, this adjustment can get it done. To apply it, duplicate your image layer by pressing (Ctrl+J on a PC) and then press (Shift+Ctrl+L).
2. **Auto Contrast** It increases the contrast in an image by lightening and darkening pixels. To run Auto Contrast, duplicate your image layer as described above and then press Shift- Option +L(Shift+Alt+Ctrl+L)
3. **Equalize –** It evens out the pixels' brightness by turning the lightest ones white and the darkest ones black. It's handy when some areas of a photo are decently lit but it lacks overall contrast (see Figure 9-3). Equalize isn't available as an Adjustment layer, so you'll definitely want to duplicate your original layer by pressing ⌘-J (Ctrl+J on a PC) before you run it by choosing
   Image → Adjustments →Equalize.
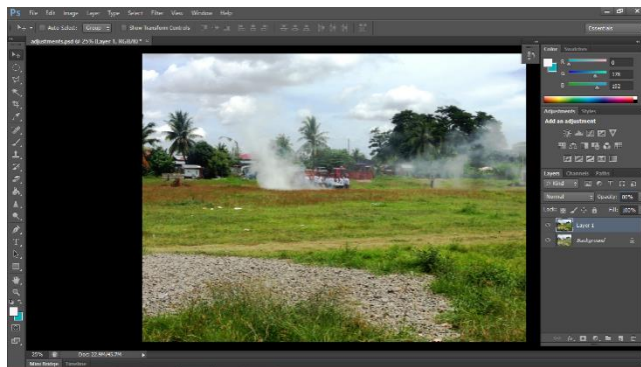
Figure 1-2
Be careful with the
Equalize adjustment,
as it
can make an image
look
washed out by
lightening
it too much (top). If
that
happens, lessen the
adjustment's effect by

USING LEVELS

Levels is a tool in **Photoshop** and other image editing programs which can move and stretch the brightness **levels** of an image **histogram.**

When you adjust levels, you're adjusting these different tones. And while you could use the **brightness and contrast** tools for a similar type of adjustment, they're much less powerful than levels.

Use a levels adjustment if you have a particularly dark—or **underexposed**—image. For example you want to make the midtones and highlights brighter while keeping the shadows relatively dark. Images are shown below.

Original Image   After Adjustments

If you are a beginner, this tool may feel a little confusing at first. At this stage, the most important thing do to is to practice making different adjustments. As you start to gain more experience, you'll be able to use it more effectively. If an adjustment doesn't look right, you can always undo your changes and start over.

To adjust levels:

1. In the **Layers** panel, add a **Levels** adjustment layer.
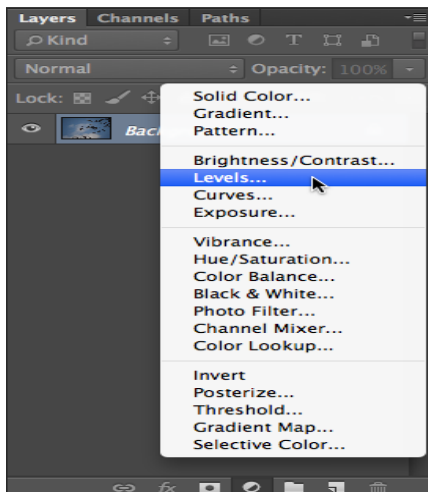
2. Find the **graph** in the middle of the **Properties** panel. This is called a **histogram**, and it shows information about the shadows, highlights, and midtones of the image. In the figure below, there's a big gap on the right side with no informationto fix this, you can use the level adjustment.
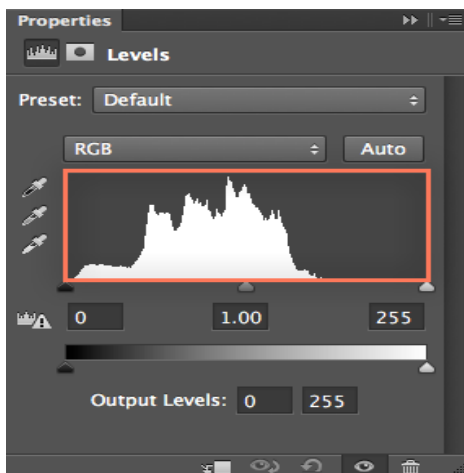

3. Notice the **Input Levels sliders** just below the histogram. These are the controls you'll use the adjust the levels. Do not use the Output Levels sliders near the bottom of the panel.
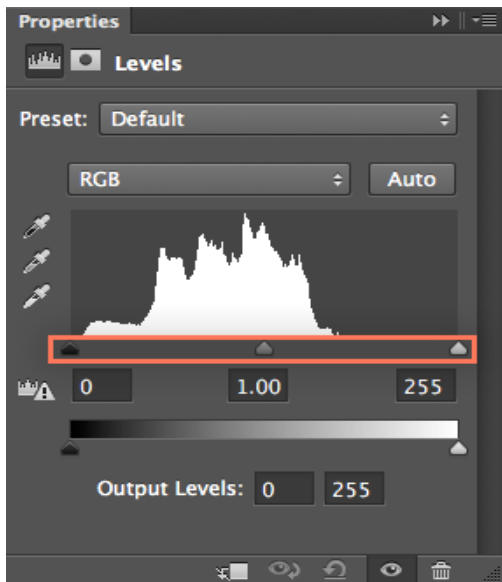
4. If the image is too dark (underexposed), click and drag the white slider **to the left**. Notice how we're dragging the slider to the **right-most edge** of the histogram. Be careful not to drag the slider past this point or you'll begin to lose detail in your image. This is commonly referred to as **clipping**.
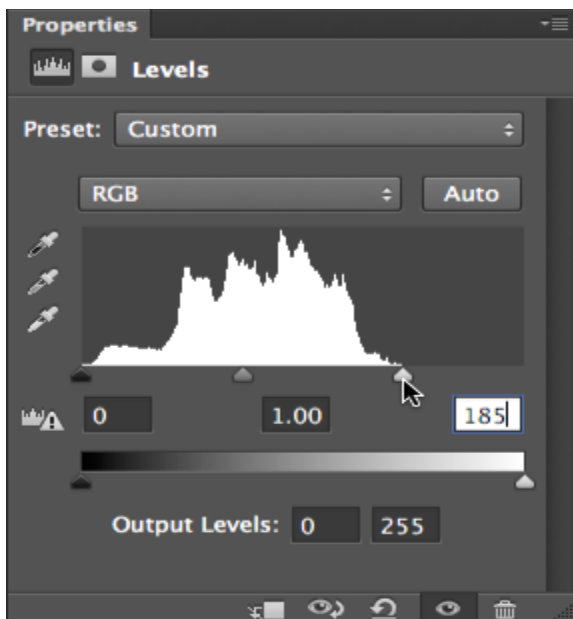

5. If the shadows in the image are too bright, you can click and drag the black slider **to the right**. In this example, we don't need to adjust this because the slider is already at the left-most edge of the histogram.
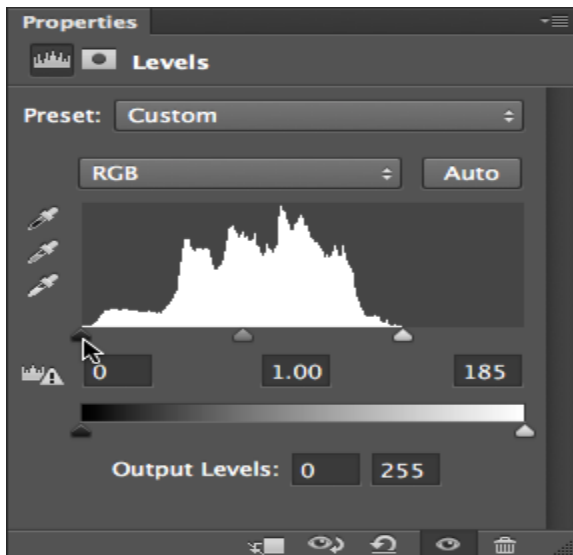
6. **Optional**: If the image still looks too dark or too bright, you can click and drag the middle (gray) slider to adjust the midtones. In this example, we'll move the slider **to the left** to make the image brighter.
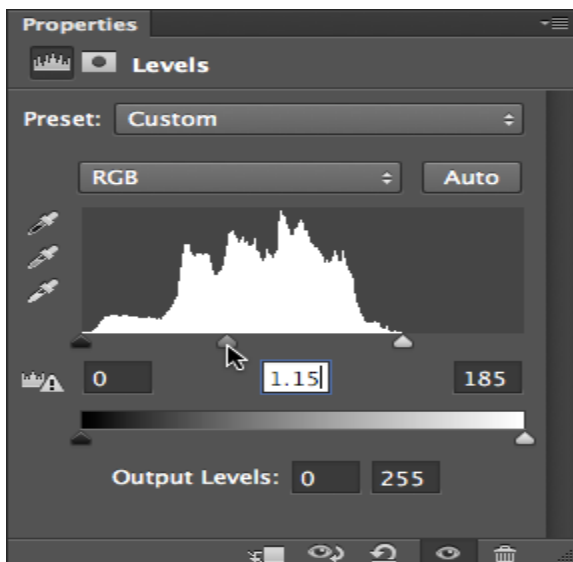

7. **Optional**: Try turning the adjustment layer **off** and **on** to compare the new levels adjustments with the original image. This will allow you to see exactly what the adjustment layer is doing. Then you can make any additional adjustments to the levels.
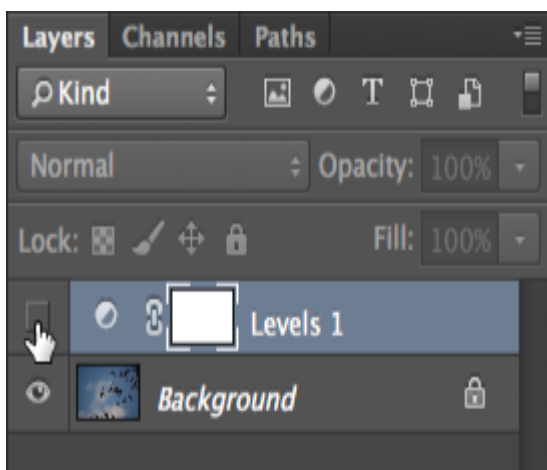
WORKING WITH CURVES

The Curves tool is similar to levels, but it gives you more power to control shadows, highlights, and midtones **separately**. Because it's a more advanced tool, you'll need to be careful when using it to adjust your images.

The example below, is an image before adjusting curves. To the right, you can see the curve as it appears by default. Notice how the diagonal line is perfectly straight. When you make adjustments with curves, you're creating different curves **with this line**.
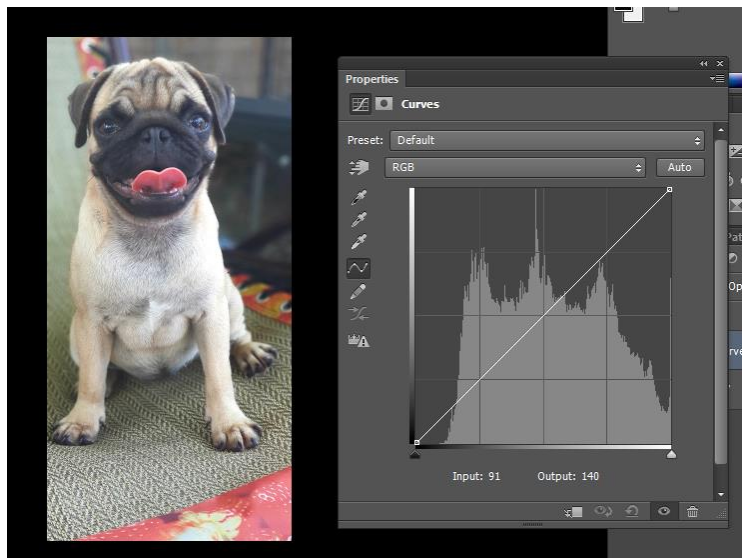

Increasing contrast

One of the simplest adjustments you can make with curves is to **increase the contrast**. To do this, drag the curve **down in the shadows** on the left to make them darker and **up in the highlights** on the right to make them brighter.
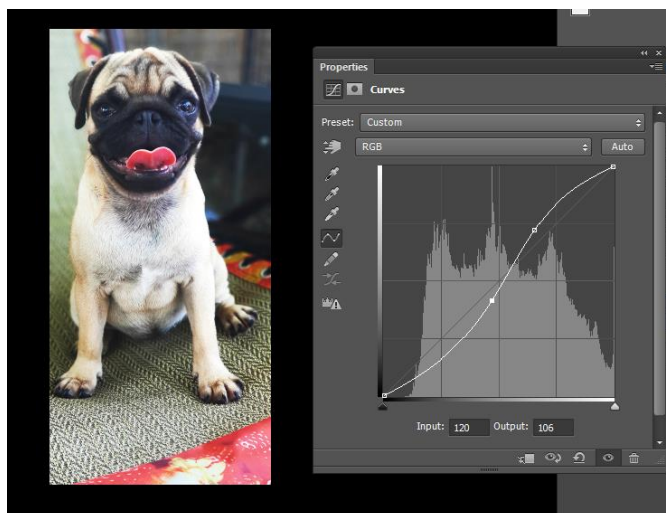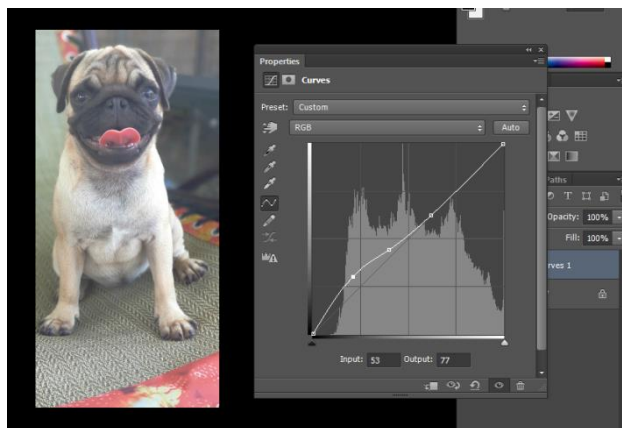
Decreasing contrast

In this image, it is better to **decrease the contrast**. To do this, drag the curve **up in the shadows** on the left to make them brighter and **down in the highlights** on the right to make them darker.
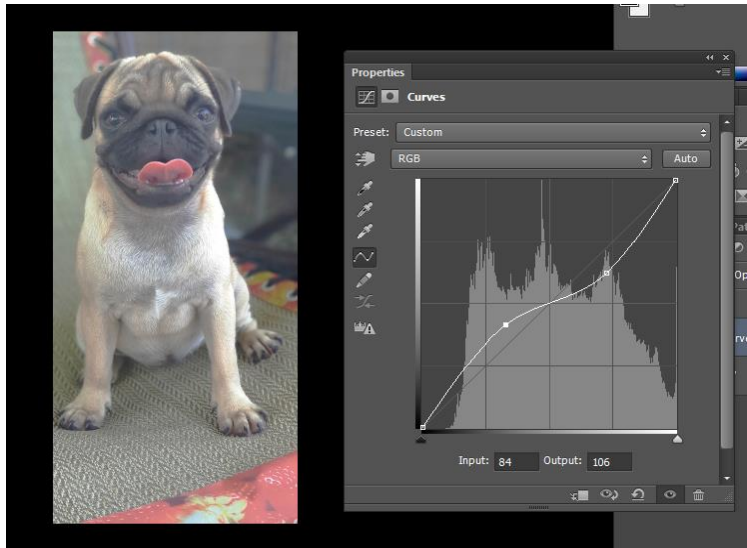

Other adjustments

To **increase the shadows** without changing the highlights. Drag the curve **up in the shadows** on the left.
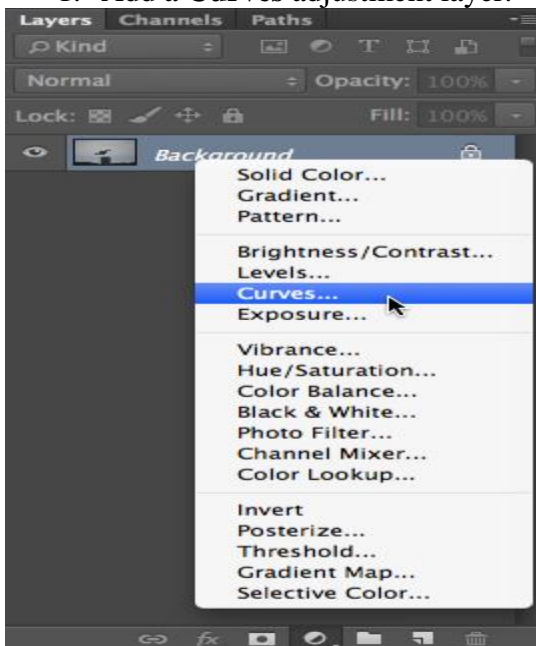

Avoid using **big, high curves**. Whenever the curve moves too far away from the diagonal line, it can create problems with the image. In the example below, notice how the curve dramatically changes direction near the middle. This causes a significant loss of detail in the midtones, giving the image a flat, unnatural look.
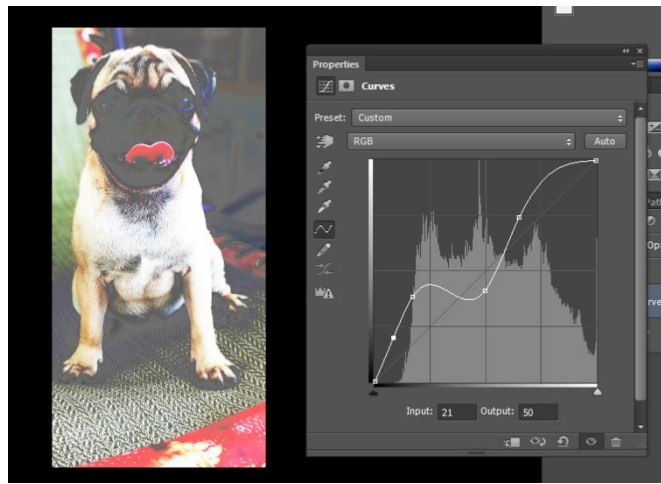
To adjust curves:
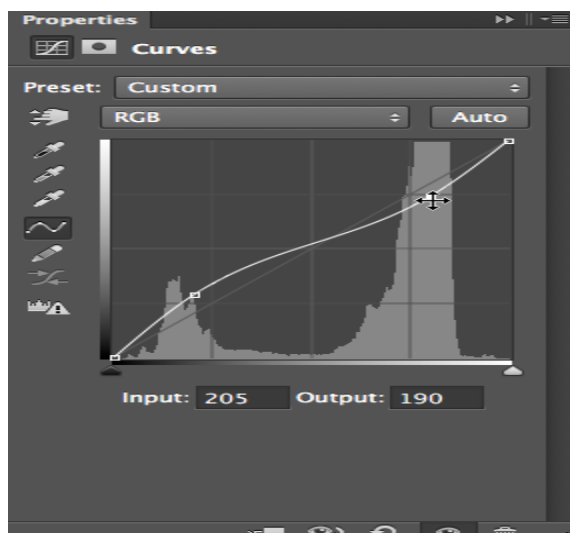
1. Add a **Curves** adjustment layer.

2. Click anywhere on the line in the **Properties** panel to **create a new point**, then click and drag the point to adjust the curve. **Note**: Be careful not to move the two points in the lower-left and upper-right corners. It is possible to adjust these, but we recommend keeping them in the corners until you gain more experience with curves.

3. Continue to adjust the points until you're satisfied with the result. You can also press the **Delete** key or click and drag a point off the line to remove it.

If you're new to curves, select one of the **Preset** options and make small adjustments to the curve as needed. If you need to start over, you can select **Default** from the Preset menu.
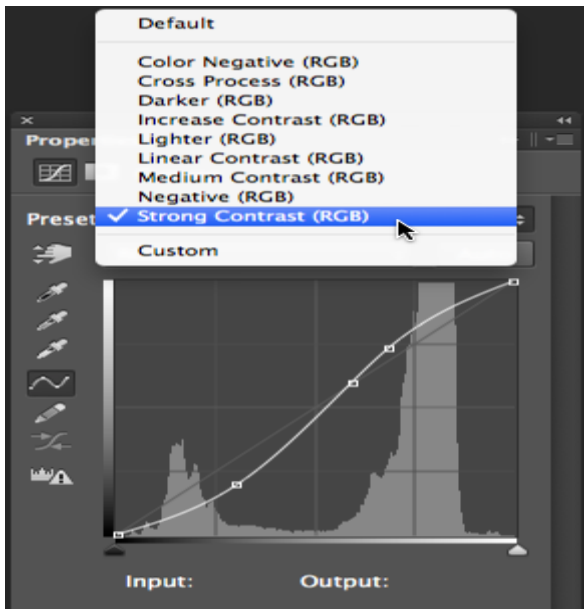
ADJUSTING HUE/SATURATION

If the colors in your image are **dull** or **muted**, you can increase the **saturation** to make them look **more vivid**. See an example of this in the images below.

Original Image	Slightly more saturation	Even more saturation

You can also reduce the saturation to make the colors **less vivid**. If you **remove the saturation** completely, it will produce a **black-and-white**, or **grayscale**, image. See an example of this in the images below.
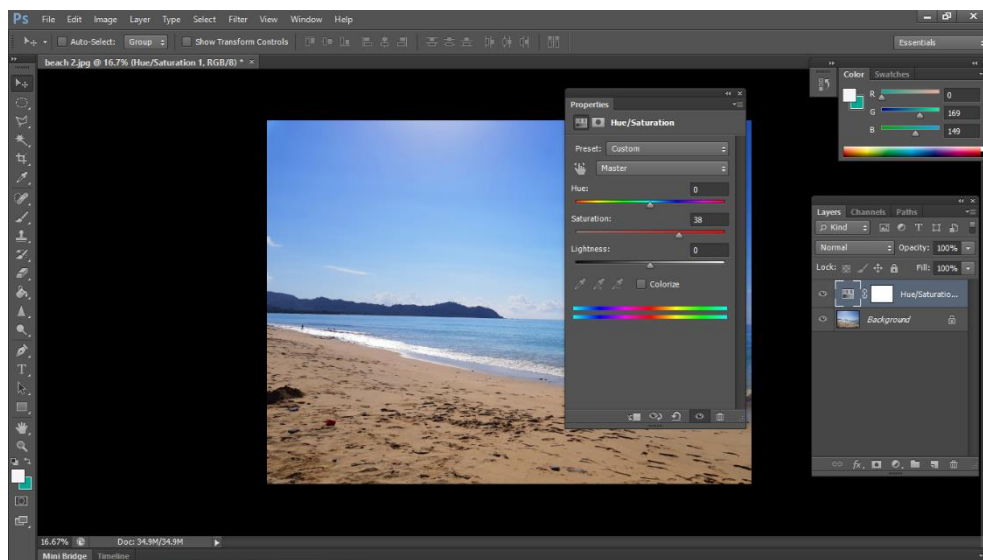
Original Image	Slightly more saturation	Even more saturation

To adjust saturation, add a **Hue/Saturation** adjustment layer in the layer tab. Then click and drag the **Saturation** slider in the **Properties** panel to increase or decrease the saturation.

LEARNING COMPETENCY WITH CODE

Manipulate and manage image color to correct unnecessary color.

ACTIVITIES

ACTIVITY 1

Directions/Instructions

Identify what is being asked or described. Choose your answer from the box.

Shadows	Highlights	Midtones	Shift+Alt+Control+L
Shift+Control+L	Curves Tool	Levels	Hue/Saturation
Curves	Layers		

_____1. It represent the lightest or brightness parts of an image, where the light is at full strength.

_____2. A tool that is similar to levels but it gives you more power to control shadows, highlights and midtones separately.

_____3. The colors that are in between. It shows the middle tones of an image.

_____4. It is created when light is blocked.

_____5. A tool in Photoshop and other image editing programs which can move and stretch the brightness levels of an image histogram.

_____6. To run auto contrast duplicate layer and press _____.

_____7. In adjusting level, the first step is to _____ panel.

_____8. To adjust curves add a _____ adjustment layer.

_____9. To apply auto tone, duplicate layer and press _____.

_____10. To adjust saturation add a _____ adjustment layer in the layer tab.

ACTIVITY 2

Directions/Instructions

Arrange the steps to adjust curves. Write the correct arrangement of steps in the box.

a. Continue to adjust the points until you're satisfied with the result. You can also press the **Delete** key or click and drag a point off the line to remove it.

b. Click anywhere on the line in the **Properties** panel to **create a new point**, then click and drag the point to adjust the curve.

c. Add a **Curves** adjustment layer

Answer:

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ACTIVITY 3

Directions/Instructions

Arrange the steps to adjust levels. Write correct arrangement of steps by putting letters before the number.

a. Find the **graph** in the middle of the **Properties** panel. It shows information about the shadows, highlights, and midtones of the image.

b. In the **Layers** panel, add a **Levels** adjustment layer.

c. Notice the **Input Levels sliders** just below the histogram. These are the controls you'll use the adjust the levels. Do not use the Output Levels sliders near the bottom of the panel.

d. If the shadows in the image are too bright, you can click and drag the black slider **to the right**.

e. If the image is too dark (underexposed), click and drag the white slider **to the left**.

_____1.

_____2.

_____3.

_____4.

_____5.

REFLECTION

Do you think using adjustment layers in Photoshop can give you chances of achieving perfect image color? How can you say so?

_____
_____
_____.

REFERENCES

- https://edu.gcfglobal.org/en/photoshopbasics/levels-curves-and-color/1/
- Photoshop CS6 "The missing manual" by Lesa Snider (www.it-ebooks.info)

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