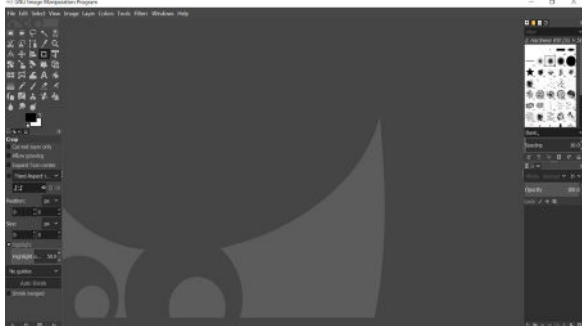
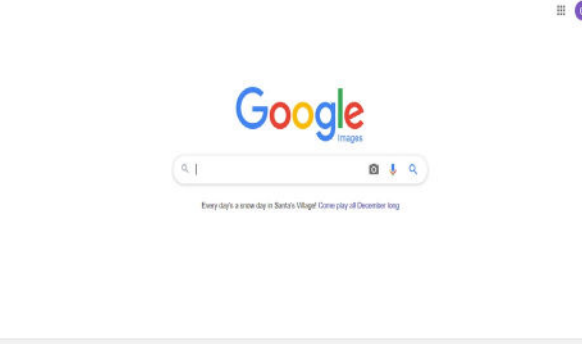


## Getting to Know GIMP!

Not every photo comes out perfectly. Photo editing has become a massive market. It is almost impossible to find an image out there that hasn't seen the inside of an Adobe Photoshop studio. There are no limits to what someone can create while using editing software, but a quick price check can steer many potential editors away from learning the platform.

Luckily for us, the creators of GIMP chose to make an entirely free and open source platform for image editing. Available on every major operating system today, GIMP is always at our fingertips. It is incredibly user friendly and features similar tools and capabilities as it's more costly competitors. GIMP is the perfect platform for teachers and students to learn the basics of photo manipulation.

This guide will discuss one of the most common forms of photo manipulation: swapping. Swapping involves combining the features of two or more separate photos into one image. With swapping, the Mona Lisa could sport a cat's head, or your principal could suddenly become the President. This is a great tool for creating both realistic and surreal art. The possibilities are endless!

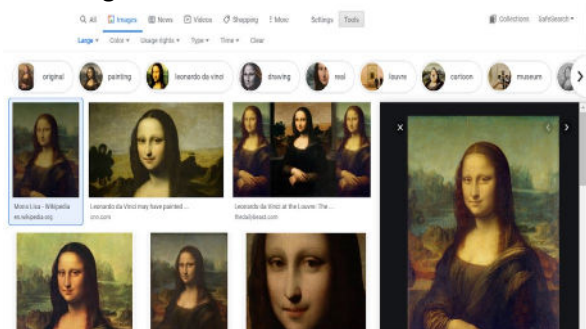
<b>Starting a Swap</b>	
<p>After downloading GIMP, the program will open to a blank studio screen. You will not need to click anything just yet as a swap starts outside of GIMP.</p>	
<p>Your first step is deciding what kind of swap you would like to create. Once you have an idea in mind, you will want to locate the images to manipulate.</p> <p>The larger the image, the better. Smaller images tend to have murkier resolutions than larger, more defined pictures do. It's best to use two clear images for the best results.</p>	

## Getting to Know GIMP!

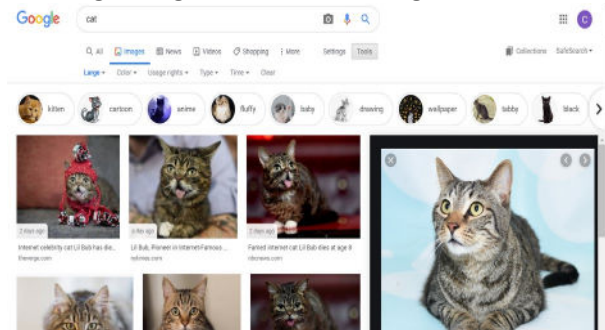
For this example, we will learn how our Meowna Lisa was created using an image of the classic art piece and a stock image house cat.



We searched for large images of the Mona Lisa. This image is 1200x1788.



And large images of cats. This image is 1062x850.

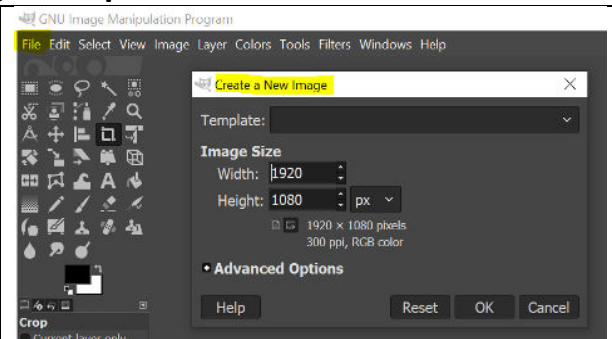


Now that we have selected our images, know their sizes, and have saved them, we can begin editing in GIMP.

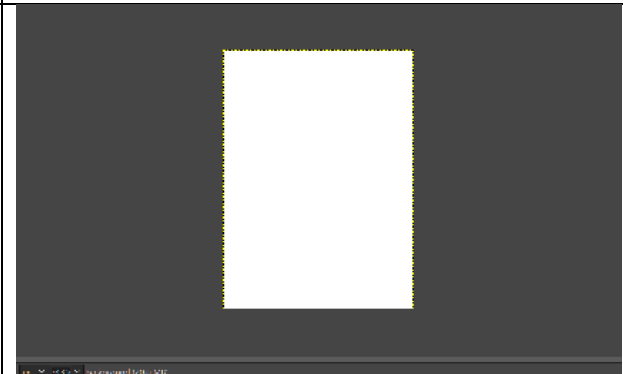
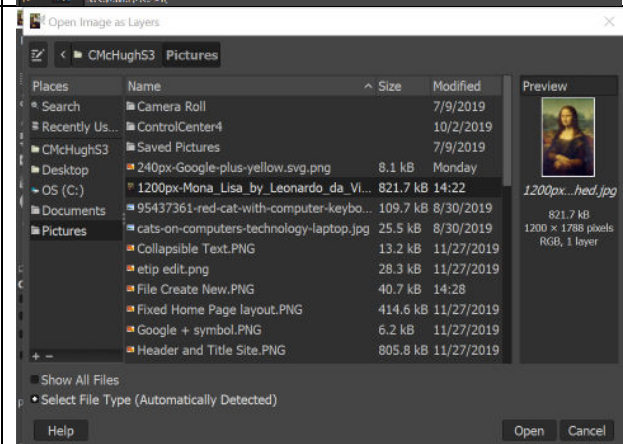
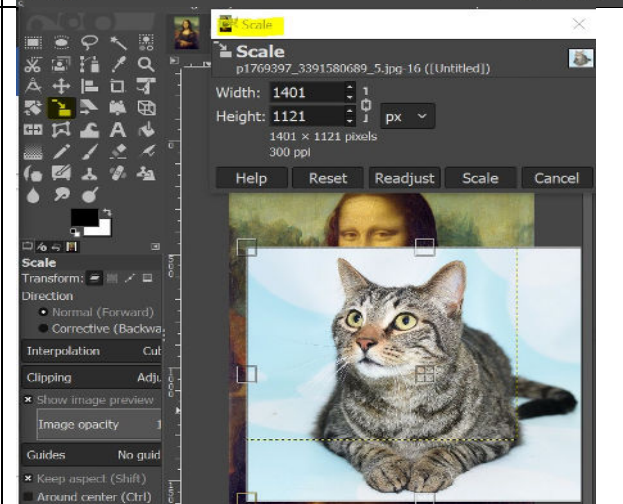
### Creating a Swap

Once in GIMP, we will click on the 'File' tab in the top left corner and select 'New.' This will open the 'Create a New Image' dialog box.

It is asking for the dimensions of our new canvas. While our images are two different sizes, we want to create a canvas that best covers both. We can always crop an image down, but we are not able to make more room later. Knowing this,



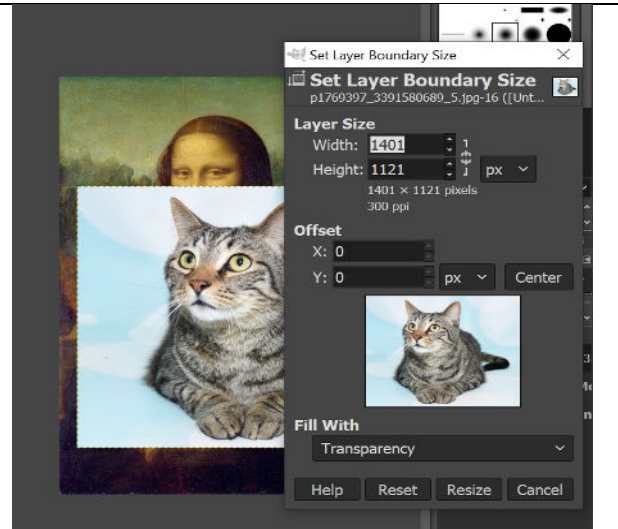
## Getting to Know GIMP!

<p>it is best to set the dimensions to the larger image.</p>	
<p>Once the range has been set, we click 'OK' and can see our blank canvas for the first time.</p> <p>If you are zoomed in or out too far, use the drop down menu at the bottom of your screen to adjust your view.</p>	
<p>When we add our images, we want to add them as layers to our new canvas. We do this by selecting File again and choosing the 'Open As Layers' option.</p> <p>You will open your first image and repeat it again for your second image.</p>	
<p>Once our images are laid on top of each other, we can see that the Mona Lisa's head is larger than our feline friend's. We need to scale our cat picture up to fit.</p> <p>To do this, we use the Scale Tool. After clicking this option in our toolbar, any image we click afterwards will open the Scale dialog box. As we increase the height and width, our image will grow or shrink in size.</p>	

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As the cat grows, we can see that there is a lot of clutter in that image that we will not need to create a Meowna Lisa. To eliminate this, we will right click our image and hover over 'Layer.' This will open a list of commands. From here, we will select 'Layer Boundary Size.'

Just like before, we will be scaling our image down. Anything outside of the box will be cropped, so make sure everything you want to include is inside before you hit Resize.



The blue background and excess fur are covering too much of the Mona Lisa. We can try and remove more by carefully scaling the Boundary Size again, but we will eventually need to use the eraser tool to get the small bits. We will carefully erase until only our head remains.

This is the most time-consuming part of swapping. For the most precise erasing, it is best to use a mouse rather than a trackpad. You can always use the Eraser toolbox to change the size or opacity of your eraser, as well.



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Once we have eliminated the background, we can use the move tool to place our cat head over Mona Lisa's head.

If you find that you need to scale more, simply hit the scale button again. If you find that your image is at an imperfect angle, use the rotate tool to line the images up.



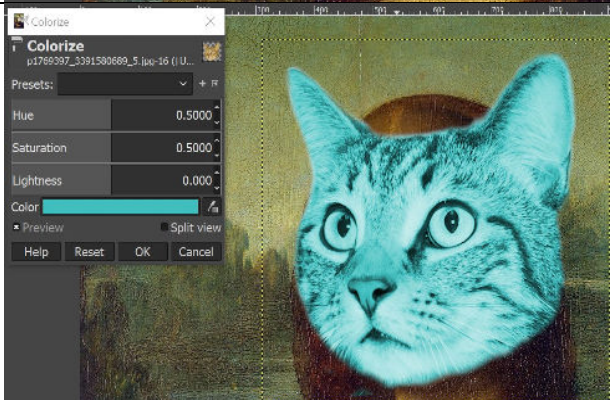
While we have now swapped heads, it still looks quite unnatural. The goal with this swapping example is to try and make the image look as realistic and natural as possible, despite how many the swap may be.

Our cat is too bright to look like the worn Mona Lisa. To fix this, we will head up to the 'Colors' tab and select 'Hue-Saturation.' We will adjust the settings of each option until we find a nice fit.

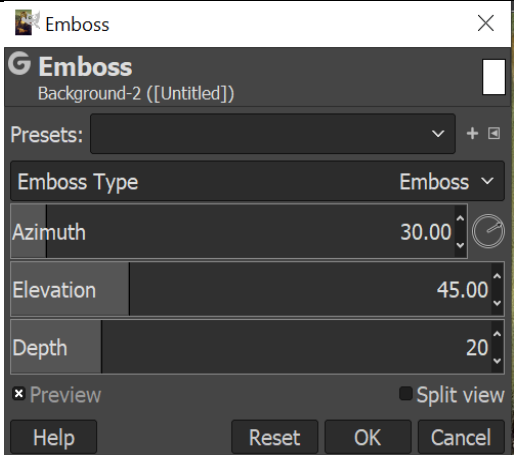


Our lightness and saturation may fit, but our color certainly clashes. We could attempt to adjust the hues or use the Color Balance option to adjust the color of the shadow, midtones, and highlights. For more intricate and realistic art projects, this is an important step.

But for Meowna, we are choosing to change the entire color of her face at once. To do this, we choose Colors once more and scroll down to 'Colorize.' This opens a spectrum of colors to



## Getting to Know GIMP!

<p>choose from. Based on her skintone, we will try to shoot for a golden-brown color.</p>	
<p>As beautiful as Meowna looks now, the cat image has none of the texture that the original Mona Lisa has on canvas. This is an easy fix. GIMP offers a variety of filters to lay over images to add blur, texture, distortion, and other fun effects.</p>	
<p>To get the feel of the Mona Lisa, we will choose Filters, Distorts, and select the Embossing effect. In order to preserve our color choices from before, we must switch the Emboss type to 'Bumpmap.' After playing around with the scales, we will choose the amounts that we like for each and click OK.</p>	

## Getting to Know GIMP!

Finally, we have ourselves a modern swap masterpiece. A true Meowna Lisa.

This is a quick draft of work, but with more time spent in GIMP, you can quickly learn how to play with more advanced features to continue making more impressive works look natural. Given a few class periods, your students are sure to impress you with what they can do.

I included a second version that was made by doubling our cat image layer to separate the ears from the rest of the head. Just as we did with one layer, we scale, we erase, and we place until we have the image just right. This guide can help, but the best way to learn is to play around with the program yourself.

The choice is always yours with GIMP. Happy Swapping!

