

Image Manipulation

Pixel:

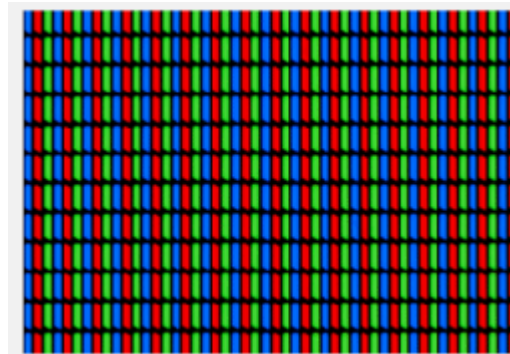
Pixels are the smallest unit in a digital display. Up to millions of pixels make up an image or video on a device's screen. Each pixel comprises a subpixel that emits a red, green and blue (RGB) color, which displays at different intensities.

In an 8-bit image, each color channel (red, green, and blue) has 8 bits of information, allowing for a total of 256 (2^8) possible values per channel. The range of values for each channel is from 0 to 255.

Imagine a digital image as a grid made up of small squares or dots. Each of these squares or dots is called a pixel. Here's an example:

Image:

```
-----  
|□|□|□|□|  
-----  
|□|■|■|□|  
-----  
|□|■|■|□|  
-----  
|□|□|□|□|  
-----
```



In this example, the image is represented by a 4x4 grid, and each square represents a pixel. The filled-in squares (■) represent pixels with a specific color, while the empty squares (□) represent pixels with no color.

Dimension:

Dimensions refer to the size and shape of an image, usually measured in pixels. It specifies the width and height of the image.

For example, an image with dimensions of 1920x1080 means it is 1920 pixels wide and 1080 pixels tall.

Resolution:

Resolution refers to the level of detail and clarity in an image and is often expressed in terms of pixels per inch (PPI) or dots per inch (DPI). It indicates how many pixels are packed within a given physical area. Higher resolution means more pixels are used, resulting in sharper and more detailed images.

Zoom:

Imagine a small image with dimensions 100x100 pixels. When you zoom in on this image, it appears larger on the screen, but the underlying resolution remains the same. For example, if you zoom in by 200%, the image will occupy a 200x200 pixel area on the screen, but the image itself does not gain any additional detail.

Aspect Ratio:

An aspect ratio is a proportional relationship between a graphic's width and height.

Aspect ratios are written as: 16:9 (where 16 represents the width and 9 represents the height). The width is mentioned first, as most screens are wider than tall, and the aspect ratio will naturally have a horizontal orientation.

Image editing:

Make the group depending upon the children. Then children can take the group photo or any other image.

Then they can learn how to resize the image at offline without changing the Original Quality.

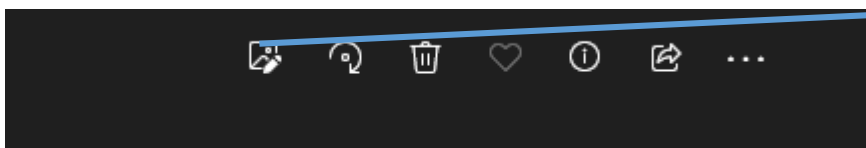
Select the picture and right click on the picture open with photos.

The photo will open go to the option at the right side and give the resize image option.

Go to Define Custom Dimensions and change the width and height and the quality of the image. (You can also resize at online depending upon the equipment's)

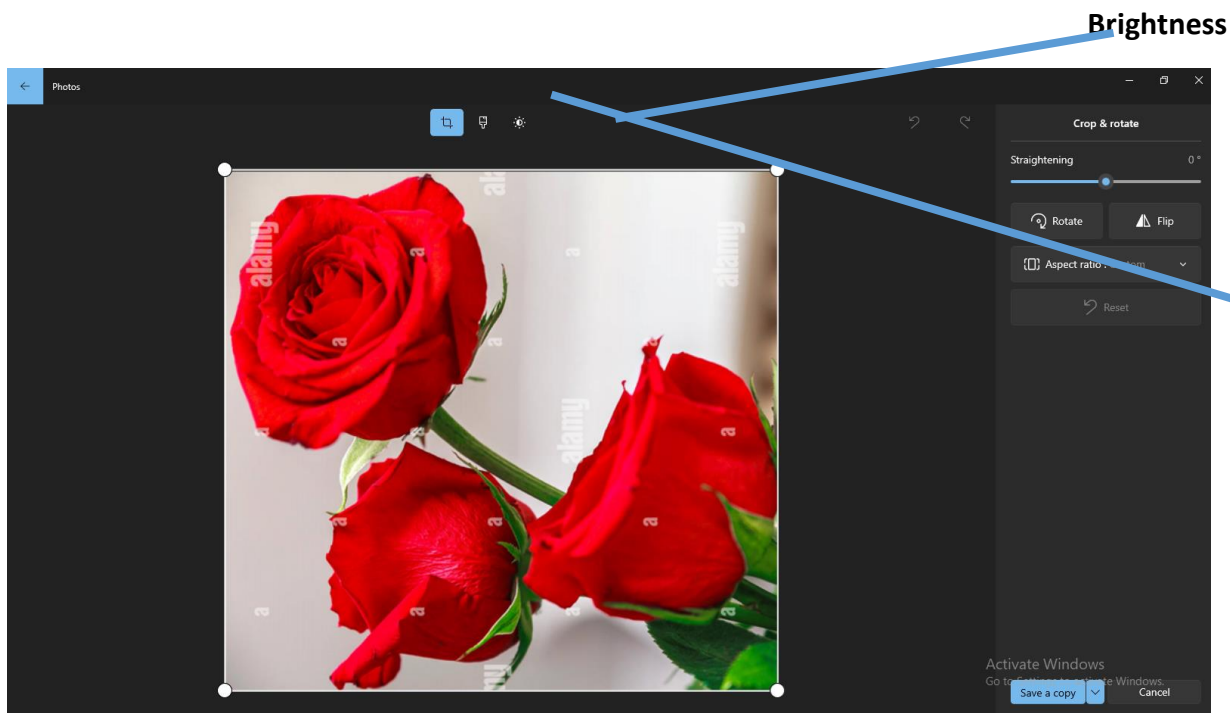


Then you can try to edit the image also. Here are the details for that



Click the edit Image

You can modify the image as you like by giving the filter and bright adjustment.



Brightness

Filter

Compress:

Do you have time and net connection to explain about compress. If we compress the image the size of the image will reduce.

Click this website <https://compressnow.com/>

And upload the image and compress as much you want.

