Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**In-camera Histogram Experiments**

Choose a partner. Choose a camera. Alternate camera apps (Google search: iOS camera apps with histograms) on personal electronic devices will also allow for the use of histograms.

Take a photo of someone in the classroom with the camera in program mode, the ISO set to 1600, metering mode to full frame and white balance to automatic.

Use the play button on the back of the camera to view the image. Press the info or display button until the histogram appears. Observe the balance in the graph from blacks on the left to whites on the right. Sketch the graph below.

Record the exposure settings here: shutter speed: \_\_\_\_\_\_\_\_\_\_\_\_ aperture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_



Set the camera to Manual mode. Adjust the exposure settings to those recorded from your first image. Confirm the exposure by taking another photo with these settings. Now change the shutter speed to a faster shutter speed that is at least one stop faster than the original. Normally, camera settings default to ⅓ stop increments, so three “clicks” up will underexpose the image by one f-stop. Observe and record the histogram for this photo.



Reset the exposure to the original settings. Change the shutter speed to a speed that is at least one stop slower than the original shutter speed. Observe and record the histogram.



Change the mode back to Program mode. Place a subject in front of a window and take a photo. Observe and record the histogram for this photo.

Record the exposure settings: shutter speed \_\_\_\_\_\_\_\_\_\_\_\_\_\_ aperture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_



With the subject still in front of the window, change the mode back to Manual mode. Adjust the shutter speed and aperture to those from the backlit window photo. Adjust the shutter speed to allow more light into the exposure (use a slower shutter speed.) Take photos and sketch their histograms until the subject is properly exposed. Record the exposures for the backlit image, while you are adjusting and your final, well-exposed image.

shutter speed \_\_\_\_\_\_\_\_\_\_\_\_\_ aperture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_


shutter speed \_\_\_\_\_\_\_\_\_\_\_\_\_ aperture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_



shutter speed \_\_\_\_\_\_\_\_\_\_\_\_\_ aperture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_