

# ISO

# The Basics

Photography 11 & 12



# What is ISO?

At its base level, ISO is a camera setting that will brighten or darken a photo.



As you increase your ISO number, your photos will grow progressively brighter.



For that reason, ISO can help you capture images in darker environments, or be more flexible about your aperture and shutter speed settings.

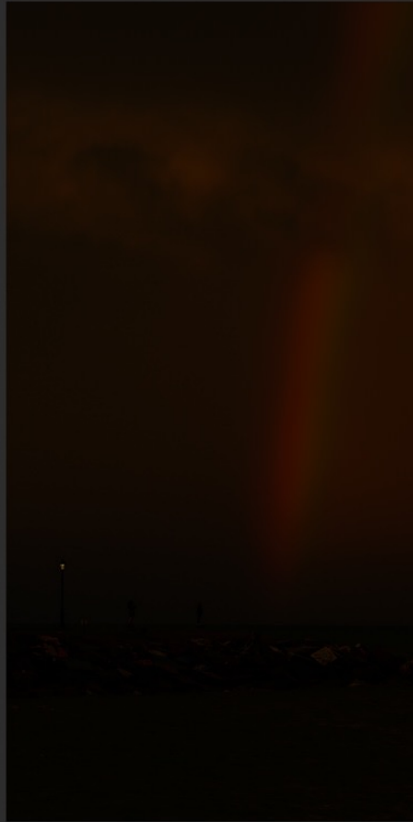


# There's a catch...

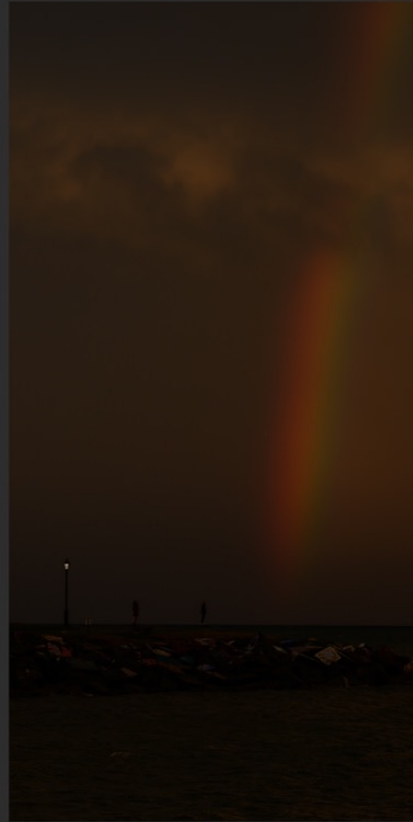
- + However, raising your ISO has consequences.
- + A photo taken at too high of an ISO will show a lot of grain, also known as *noise*, and might not be usable. So, brightening a photo via ISO is always a trade-off.
- + Only raise your ISO when you are unable to brighten the photo via shutter speed or aperture instead
- + **Example:** If using a longer shutter speed would cause your subject to be blurry.

# Common ISO Settings

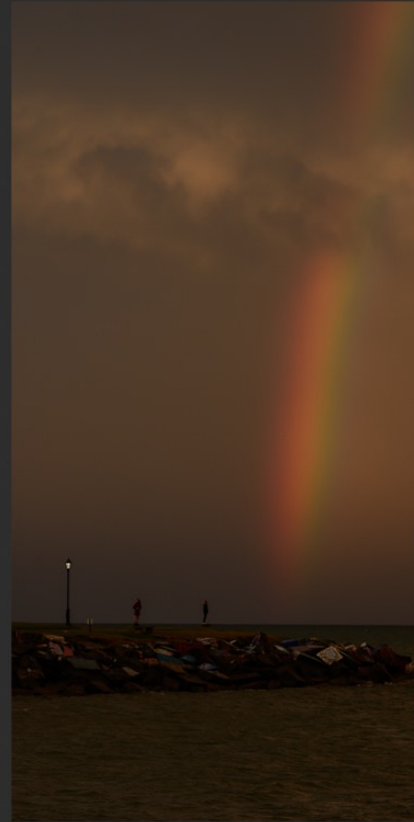
- + Every camera has a different range of ISO values. Most follow this range:
- + ISO 100 (low ISO)
- + ISO 200
- + ISO 400
- + ISO 800
- + ISO 1600
- + ISO 3200
- + ISO 6400 (high ISO)
- + When you double your ISO speed, you are doubling the brightness of the photo.
- + A photo at ISO 400 will be twice brighter than ISO 200, which will be twice brighter than ISO 100.



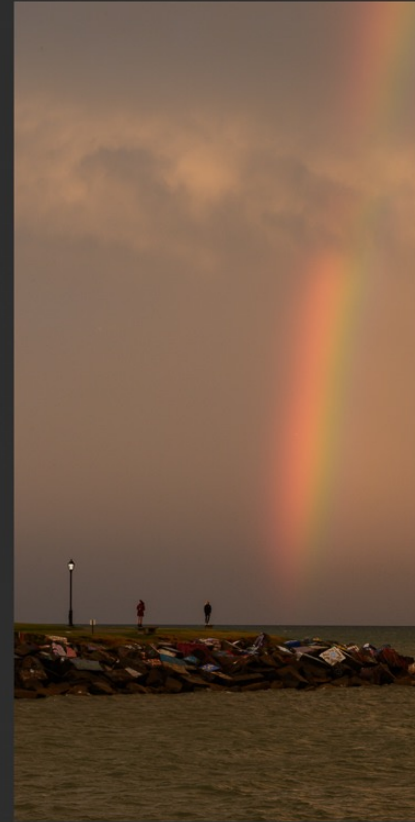
ISO 100



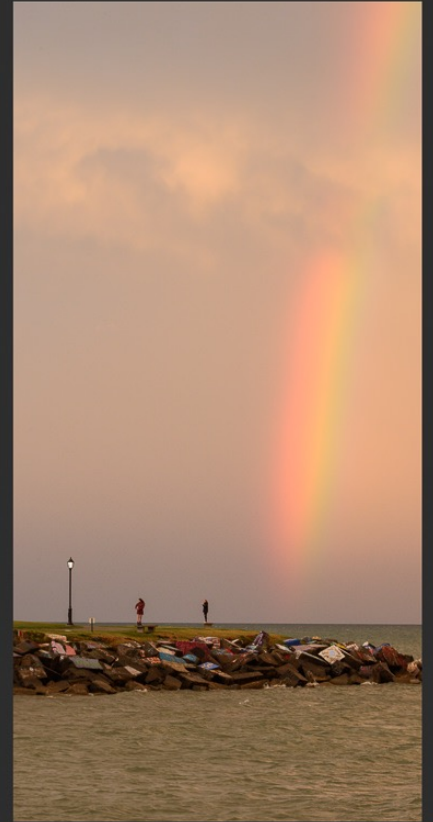
ISO 200



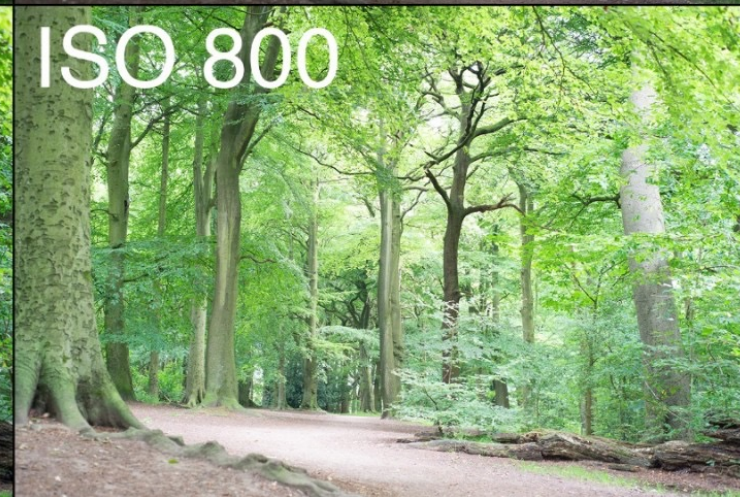
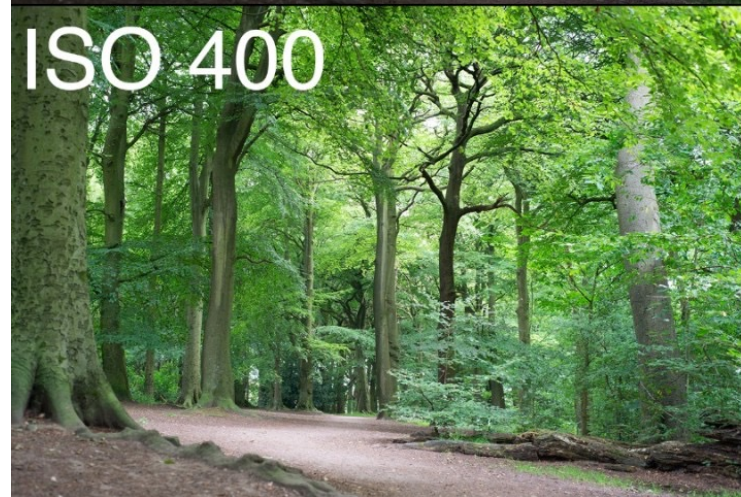
ISO 400



ISO 800



ISO 1600



# What ISO setting should I use?

1

The rule of thumb...

2

**You should always try to stick to the base ISO to get the highest image quality.**

3

Base ISO is often the lowest setting. Depending on the camera you are using this is either ISO 100 or ISO 200.

4

However, there are exceptions to this rule...

# When to use a low ISO?

- + If there is plenty of light, you are free to use a low ISO and minimize the appearance of noise as much as possible.
- + Even in dim or dark environments, you still might be able to use a low ISO.
- + For example, if you have your camera mounted on a tripod or sitting completely still on a table. In that case, you can safely use a low ISO and brighten your photo via a long shutter speed instead, since you won't introduce camera shake.

# When to use a high ISO?

- + Increase the ISO when there is not enough light for the camera to capture a sharp, bright photo any other way.
- + This is often the case when are taking a photo of something in motion.
- + Again, this a balancing act between the other camera settings of Aperture and Shutter Speed.
- + The more you experiment, the more you will understand this dynamic.