



DARKER

Brightness Level

BRIGHTER

# Shutter Speed

Shutter speed is the amount of time the shutter stays open.



If you've ever captured a photo that turns out like this, it could be due to a slow shutter speed!



A fast shutter speed of 1/1000 will freeze the motion  
A slow shutter speed like 1/15 creates motion blur in the shot



**SLOW SHUTTER SPEED**



**FAST SHUTTER SPEED**



## TIPS:

- |                  |                 |
|------------------|-----------------|
| <b>PORTRAITS</b> | 1/250           |
| <b>SPORTS</b>    | 1/800 or HIGHER |
| <b>PETS</b>      | 1/800 or HIGHER |
| <b>LANDSCAPE</b> | 1" OR LONGER    |

*Pro Tip: Use a Tripod for slow shutter speeds to get a creamy water or some light trails. Otherwise, the rest of the image will be blurry*

*You have to decide WHEN BLUR IS INTENTIONAL or when it just looks like a MISTAKE.*

# Aperture

This controls your **Depth of Field** (how much of your image is in focus from front to back)



Aperture F/4



Aperture F/5.6 - F/8



Aperture F/1.8

Opening the aperture allows more light to enter, resulting in a shallower depth of field.



## TIPS:

|               |                 |
|---------------|-----------------|
| PORTRAITS     | f / 1.8         |
| PRODUCT PHOTO | f / 4           |
| GROUP PHOTO   | f / 5.6 - f / 8 |
| LANDSCAPE     | f / 11          |

*Using wider apertures like F/1.8 can beautifully isolate your subject, creating a striking visual impact with blurred backgrounds. This technique enhances portraits by focusing sharply on the subject while producing a creamy bokeh effect, especially useful in low-light conditions. Experiment with various apertures to achieve your desired mood and focus.*

# ISO

Typically, ISO is the last setting to be adjusted. It regulates your camera sensor's sensitivity to light.

**Higher ISO:** Increases light sensitivity, resulting in a brighter image.

**Lower ISO:** Produces a cleaner image with less noise and grain.

Keep in mind, while higher ISO can brighten your photos, it can also introduce more noise and grain.



ISO 100



ISO 400



ISO 1600 - 3200

When considering ISO settings, it's essential to balance light sensitivity with image quality. **For beginners, starting with a lower ISO like 100 or 200 is ideal for bright, sunny conditions.** This ensures your images are sharp and free from noise.

As lighting conditions change, such as during indoor or nighttime photography, gradually increase your ISO to maintain a well-exposed image.



## TIPS:

**BRIGHT OUTDOORS** ISO 100

**INDOORS** ISO 400

**NIGHT** ISO 1600-3200

*Always be mindful of the trade-off between brightness and noise. Taking test shots and reviewing them can help you find the perfect ISO setting for your specific environment and artistic goals.*

# PRO PHOTOGRAPHER'S NOTES

How do you bring all these elements together?  
Here's my approach to setting up a shoot in the real world:

1. **Shutter Speed:** I first determine whether I want to capture motion blur.
2. **Aperture:** Next, I consider if I prefer a blurred background or if I want more elements to be in focus.
3. **ISO:** Finally, I adjust my ISO, increasing it just enough to ensure adequate brightness.



## Scenario 1: Capturing a Subject Outdoors

- I would likely set my **shutter speed** to around **1/400<sup>th</sup>** of a second.
- To achieve some background blur, I'll adjust my **aperture to f/2.8**.
- Given that I'm shooting outdoors, my **ISO** will remain relatively low, at **100**.



## Scenario 2: An Indoor Group Shot for a Family of Four

- Since this photo will be taken indoors, the natural light will be less abundant than outdoors. Therefore, adjust the **shutter speed to 1/125** seconds.
- Increase the **aperture to f/5.6** to ensure everyone remains in focus.
- Consider raising the **ISO to 800** for better exposure.

**PRO TIP:** The key is to modify one setting at a time while leaving the others unchanged. This allows you to isolate the desired adjustments and maintain a low number of variables.

## SIMPLE TROUBLESHOOTING GUIDELINES

TOO BLURRY = SHUTTER SPEED IS TOO SLOW  
TOO NOISY = ISO IS TOO HIGH  
TOO MUCH OR TOO LITTLE FOCUS = WRONG APERTURE

Learning photography can be an enjoyable journey rather than an overwhelming task. However, it does require time and practice to harmonize these settings effectively!