

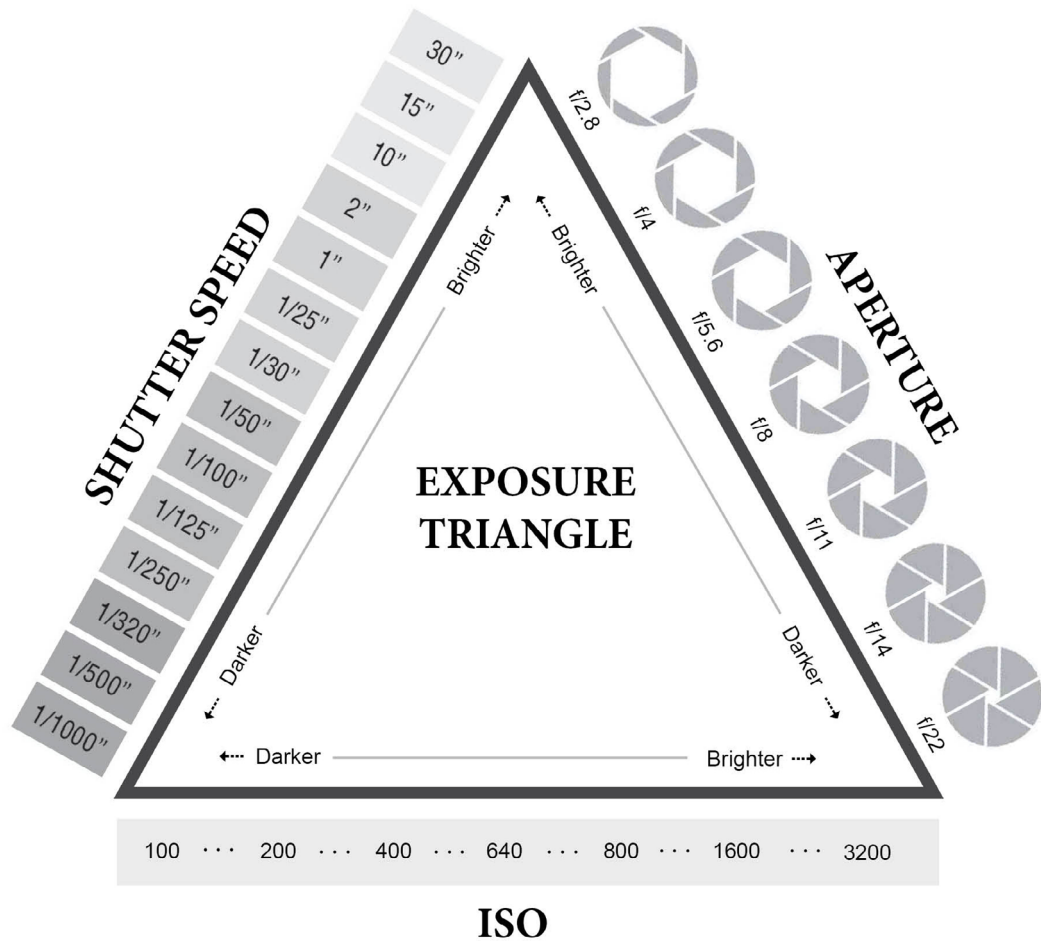
# EXPOSURE TRIANGLE

## BLUEPRINT

For those who are new to photography, understanding the relationship between aperture, shutter speed and ISO can be somewhat confusing.

The easiest way to understand these variables is by using the principle of **exposure triangle**.

Aperture, shutter speed, and ISO make up the **three sides of the exposure triangle**. Combined together, they produce a photo with a proper exposure. If one of these three variables changes, at least one of the others must also change in order to keep the right exposure.



## 1 APERTURE

Aperture refers to the size of the hole in the lens that lets in light. The bigger the hole, the more light that reaches the sensor.



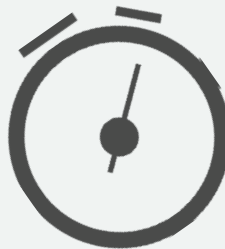
Each time you double the area of that opening, you double the amount of light and increase the exposure by one stop. On the other hand, if you do the opposite (half the area of the opening), you will decrease the exposure by one stop.

### TIP:

Most lenses can produce sharpest images around f/5.6 or f/8. Of course, sometimes you will want to trade some sharpness for the shallow depth of field.

## 2 SHUTTER SPEED

Shutter speed measures how long the shutter remains open and how long the sensor is exposed to light. This means that faster shutter speeds give the sensor less time to collect light and vice versa.



We use faster shutter speeds to stop motion and slower shutter speeds to suggest movement and passage of time. As long as the shutter is open, the camera is recording the position of elements in the frame!

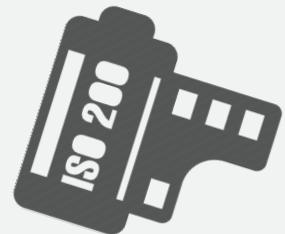
### TIP:

If your shutter speed isn't fast enough to give you a sharp image, nothing else can save the image. Be very careful with your choice of shutter speed!

## 3 THE ESSENTIALS

## 3 ISO

You should think of ISO as the light sensitivity of the digital sensor. Increasing the ISO allows you to work with less light.



However, there's a disadvantage to high ISO - it results in increased noise and less detail, so it should be used only when truly necessary.

### TIP:

Thanks to the improvements in camera technology, now you can photograph even at ISO 3200 without getting too grainy.