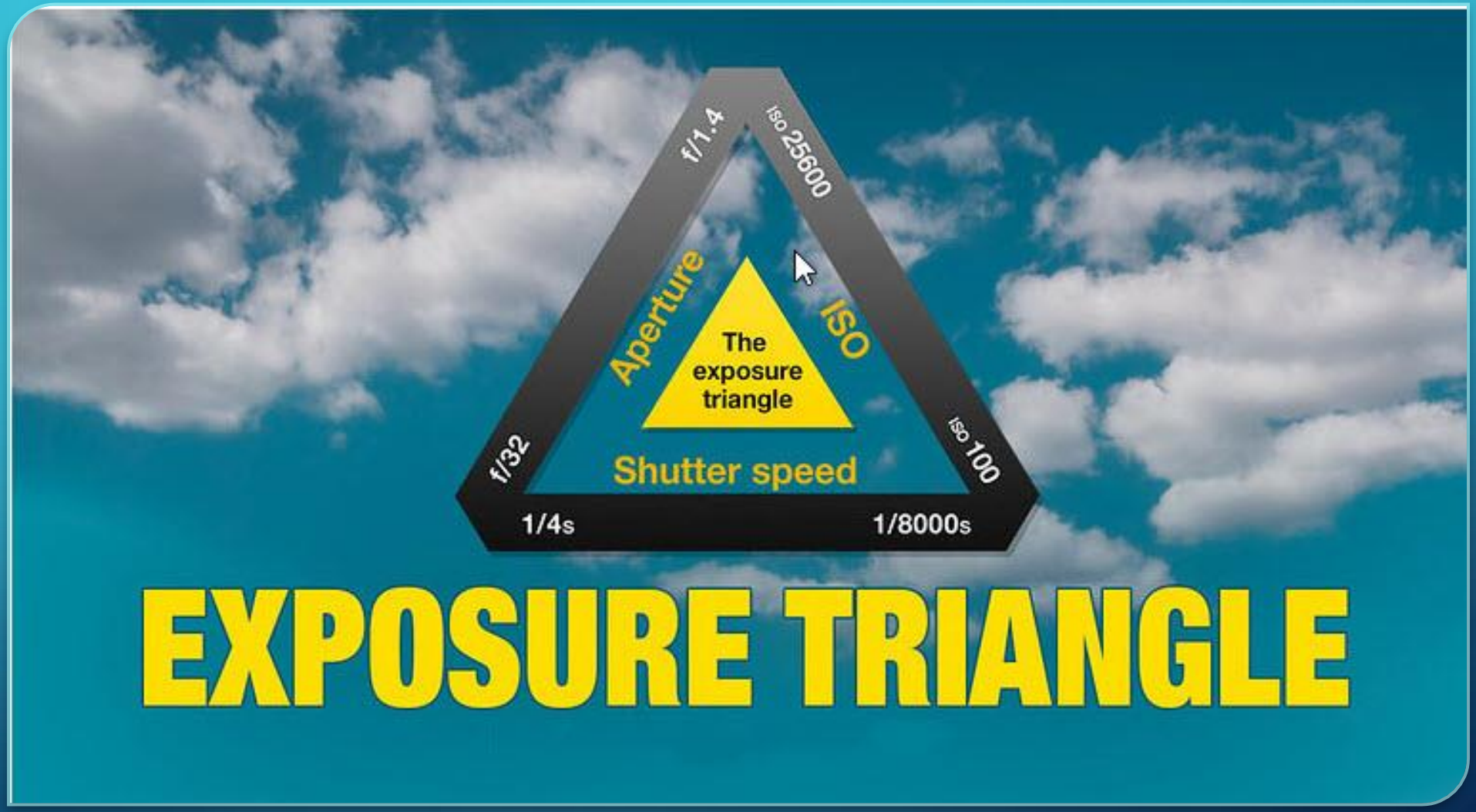
MINORU PHOTOCLUB - CONFINED

THE EXPOSURE TRIANGLE


f/1.4
ISO 25600
Aperture
ISO
The exposure triangle
f/32
ISO 100
Shutter speed
1/4s
1/8000s
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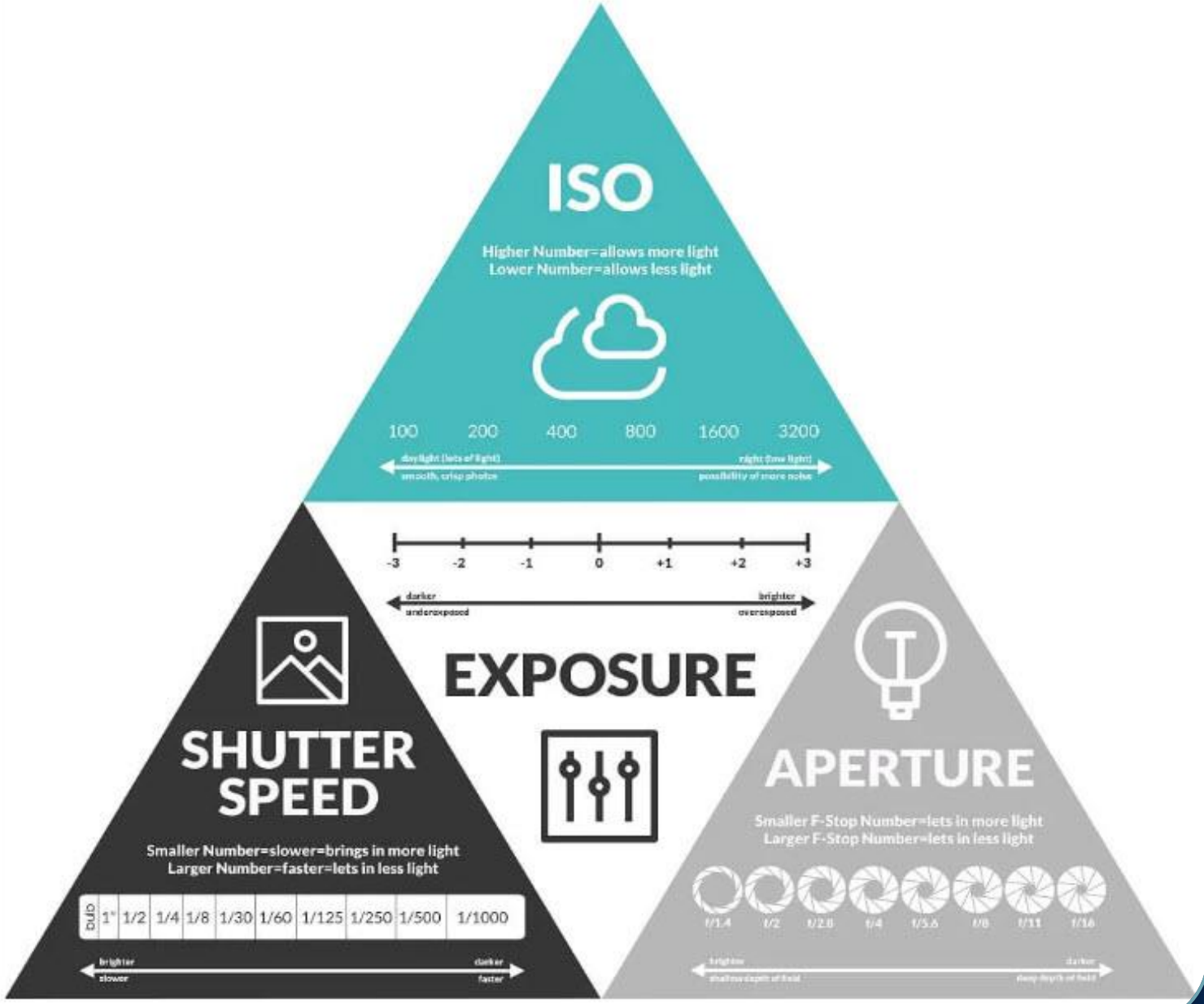

ISO

The ISO refers to ratings that define the sensitivity level of your camera to light (a more technical exploration can be found here). ISO value is determined by numbers: the lower the number, the lower the sensitivity to light. Higher values mean it is more sensitive to light. Depending on your camera, the lowest value is 50, 100 or 200.

Photographers need to know and understand proper ISO settings. For example, if you want more saturation and less noise and more details, go for ISO 100. If you want less saturation and details, go for a higher number, like an ISO of 400. Each time you increase the ISO to a level, the sensor's sensitivity is doubled (ISO 100 to ISO 200, ISO 200 to ISO 400, and so on). This means that you need half the amount of light hitting your sensor for the same exposure. Thus, exposure is increased by a factor of 2.

In the same manner, if you want to take a photo of the early evening skyline, you will need to consider that it is already dark, so you will need a high shutter speed to properly capture the image. What you can do is increase the level of sensitivity to 3200 so that exposure is increased by five (100-200-400-800-1600-3200).

Once you learn how to take advantage of the ISO, you can experiment with the images you want to capture. You can create different ways of presenting your subject. In addition, you will also be more comfortable shooting in different lighting conditions.

APERTURE

If the ISO is related to light sensitivity, the aperture is all about controlling the amount of light that gets to the digital sensor of your camera. The aperture is the opening found in your camera lens. If you look closely at the camera lens, you will find round or ring-like metal blades. These blades open and close: it opens to widen the opening, and it closes if you want the opening to narrow down.

As such, controlling the aperture or choosing to use the Aperture Priority mode allows you to adjust the amount of light that can get into your camera so that it can either open (widen) or close (narrow). The aperture setting is determined by several f-stop values.
The usual numerical values for the f-stop are 1.4, 1.8, 2.0., 2.8, 3.6, 4, 5.6, 8, 11, 16 and 22.

When you adjust the aperture, note that as the numerical value increases, the aperture becomes smaller and the amount of light that gets through decreases. Also, the smaller the aperture size, the wider your depth of field — a deeper portion of your photo will be in focus. For shallow depth of field photos, use a larger aperture size (i.e. a smaller numerical f-stop value).

So, if you need to remember one thing, it is this: when you adjust the aperture by just one stop, you either halve or double the amount of light that goes through your camera lens.
What is important, though, is that you keep practicing until you familiarize yourself with the different f-stop values, and until you produce the image/s you want.

SHUTTER SPEED

The shutter of your camera is the one you hear clicking or snapping. This is the sound that tells you that a photo has been captured.

For photographers, though, what is more important is the shutter speed. Every time you press the shutter button, a door that opens and closes is found in front of your camera's sensor. This is the shutter mechanism that determines the length of time the sensor is exposed to light. In other words, while aperture controls how much light reaches your sensor, and shutter speed controls how long light reaches your sensor.

The shutter speed is measured in fractions of a second, e.g. 1/100s. So, if you use the example given, 1/100s, what this means is that your camera sensor is exposed to light for only one hundredth of a second. If you need to remember one thing about shutter speed, it is that when the shutter speed number is a smaller fraction, the faster the shutter opens and closes.

If you want to control the shutter speed manually, go for Shutter Priority (S or Tv on your camera) or manual mode.

When you are confident in using the shutter speed, you can play around with your photos and make them come out more creatively (e.g. slow shutter speeds allow for more motion blur when shooting action). Of course, practice makes perfect. So, don't forget to do just that.

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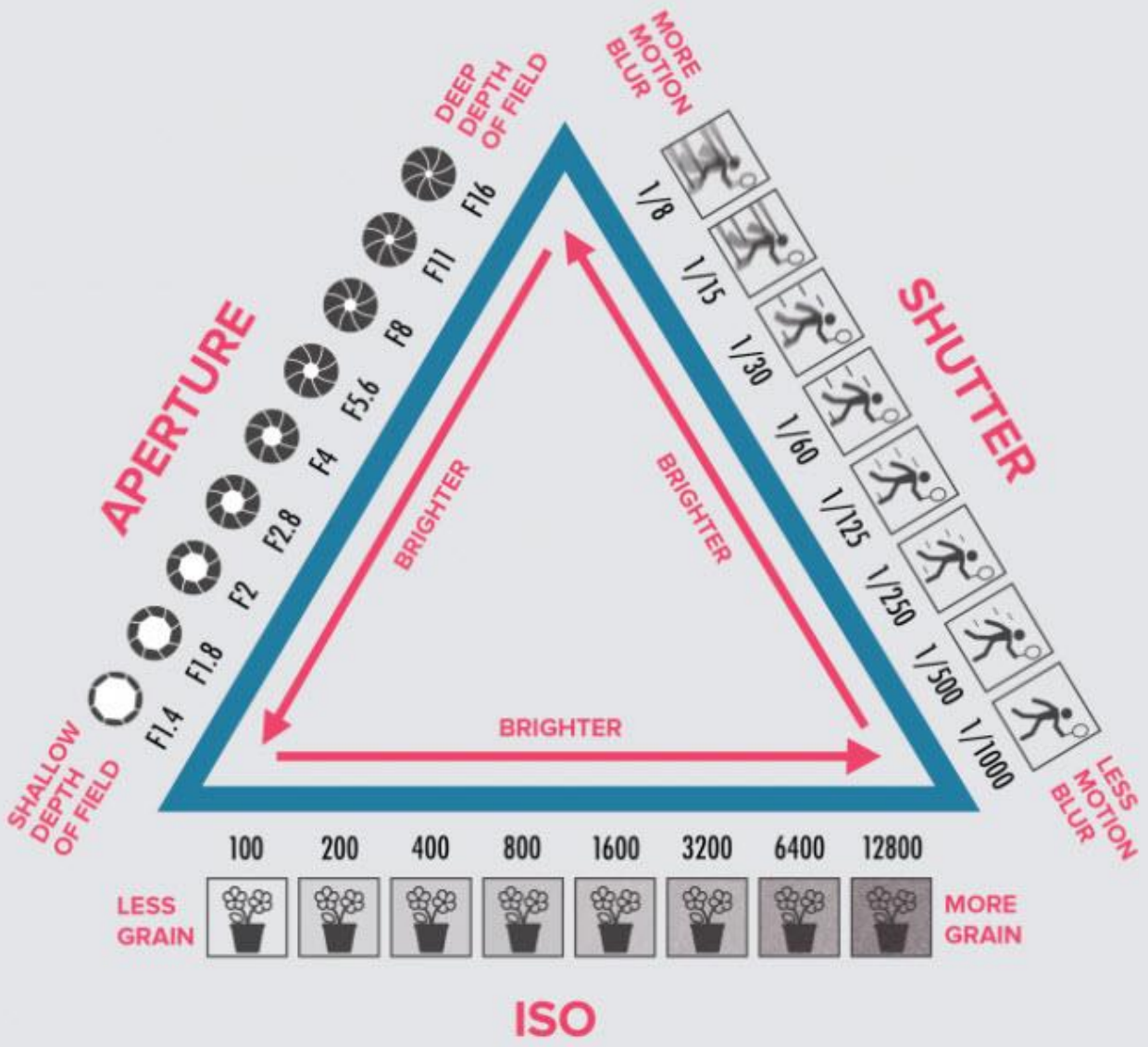

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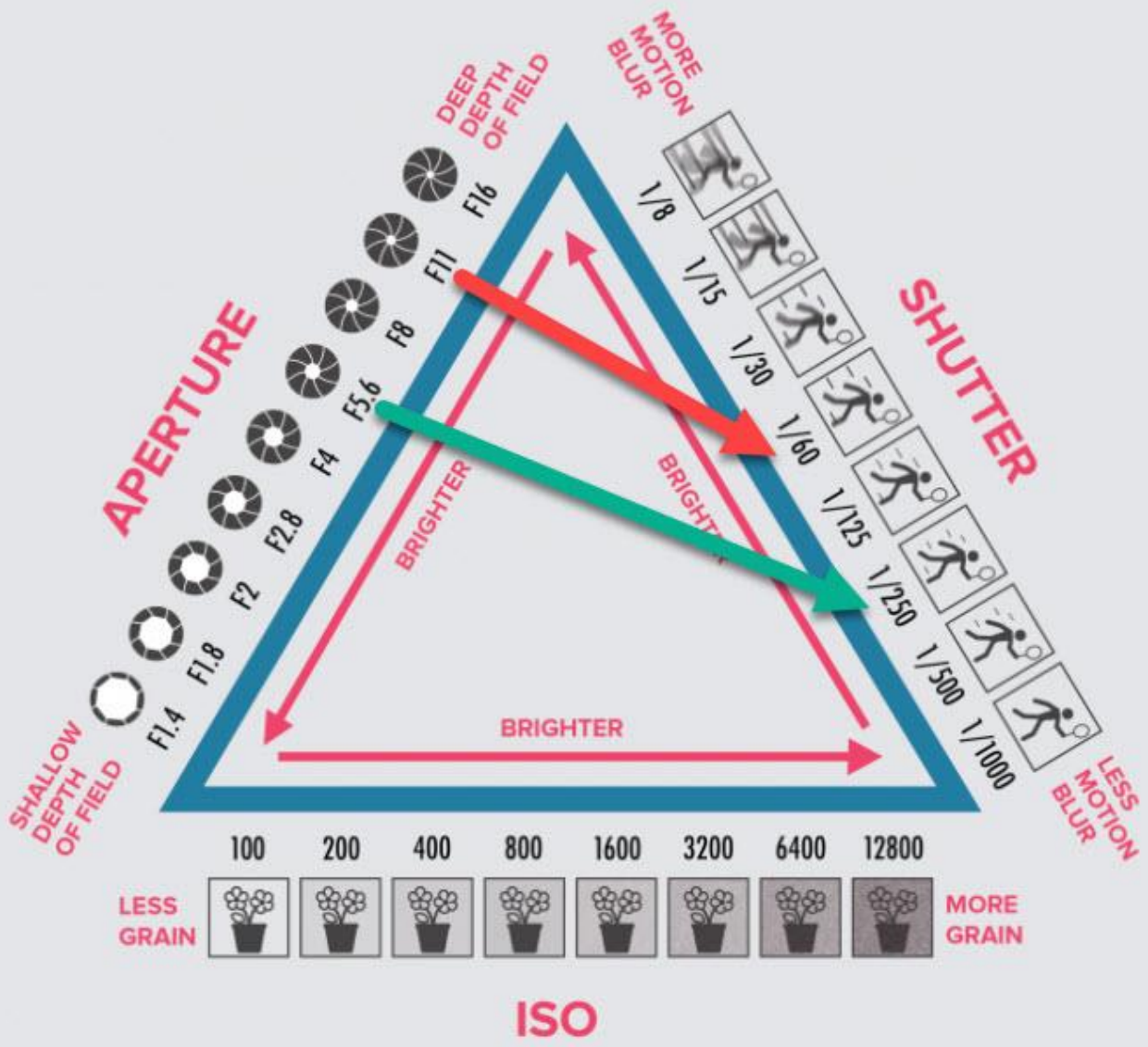

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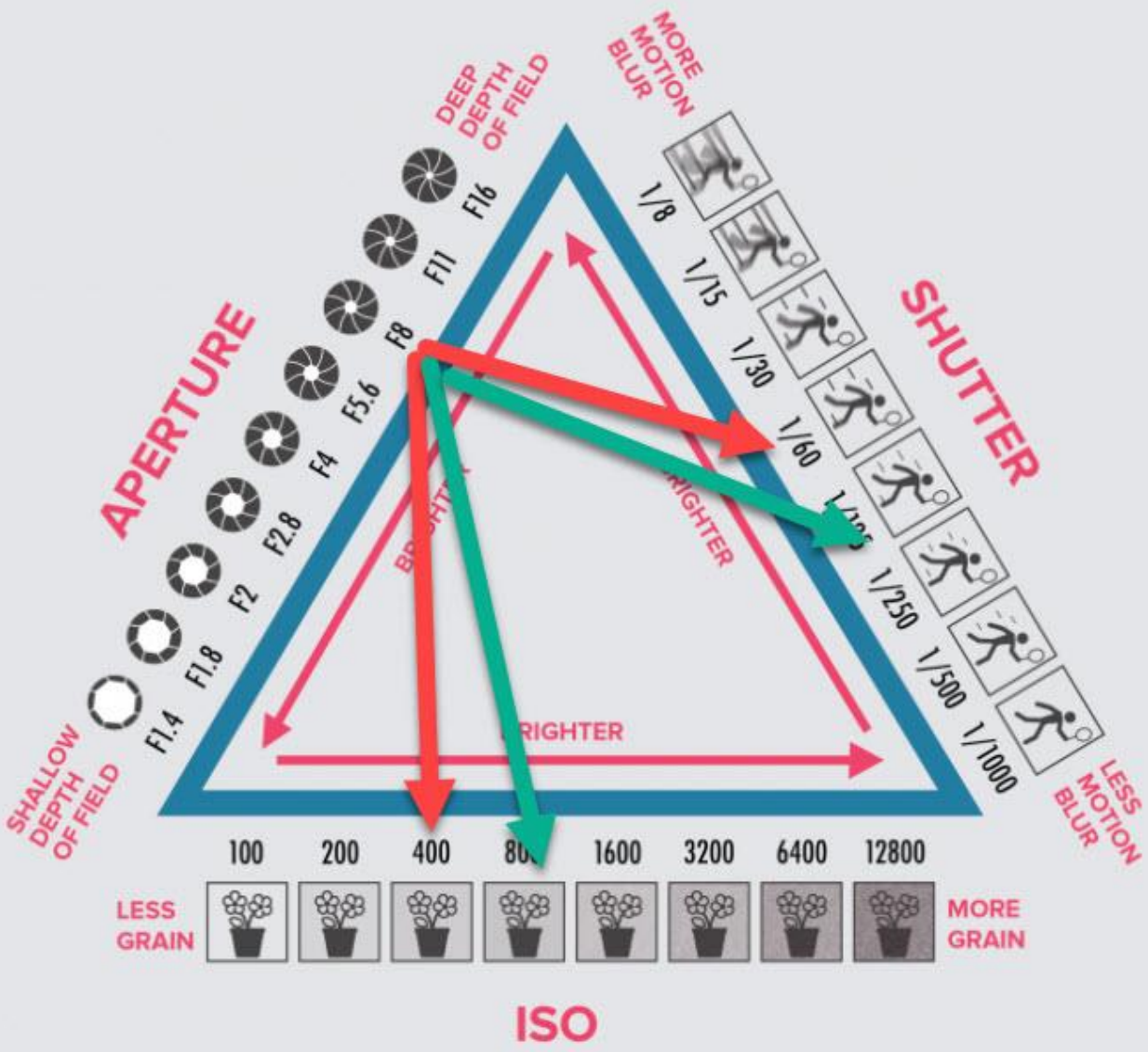

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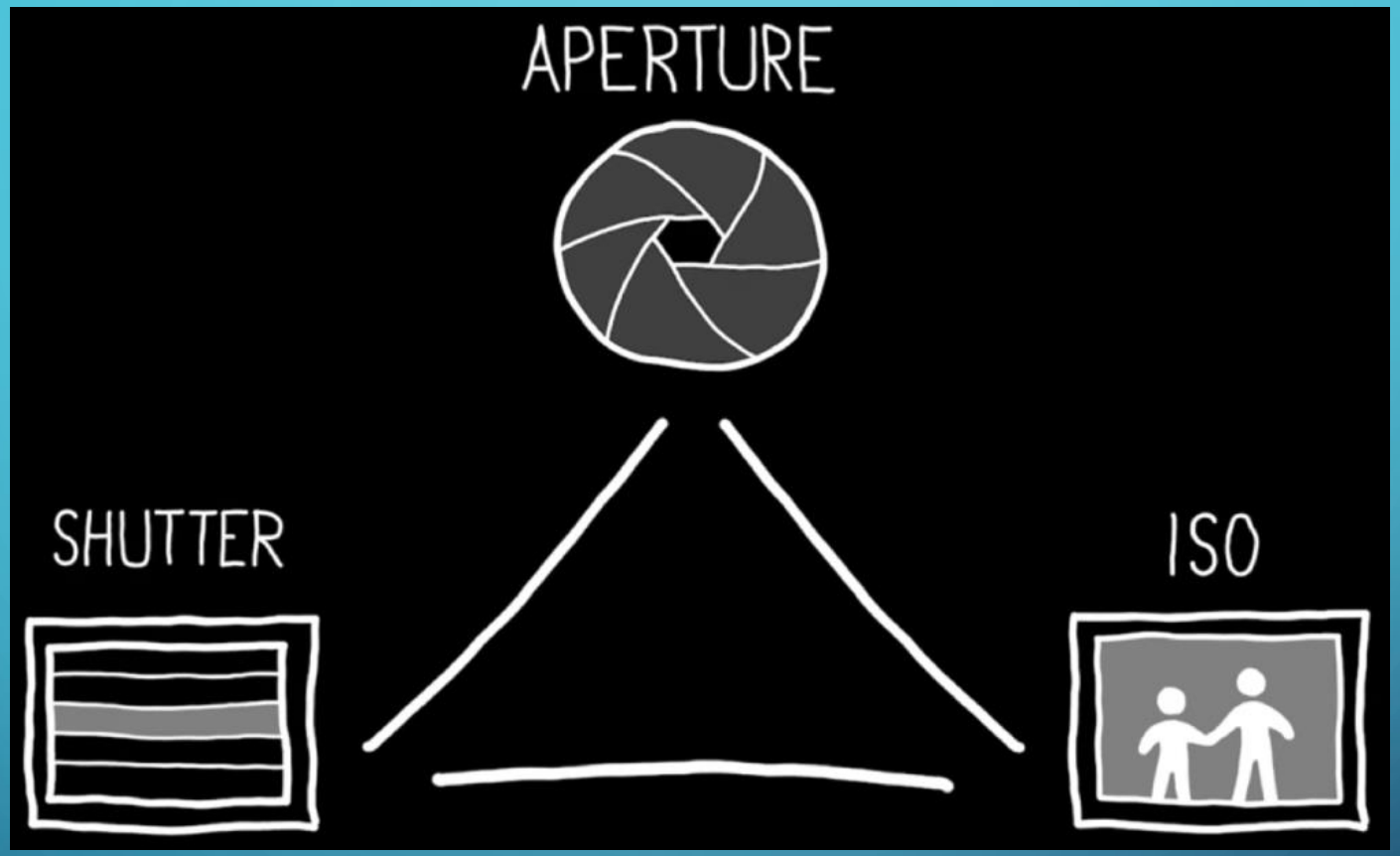

Video