

Kela Stout Photography

Camera Basics: Manual Mode



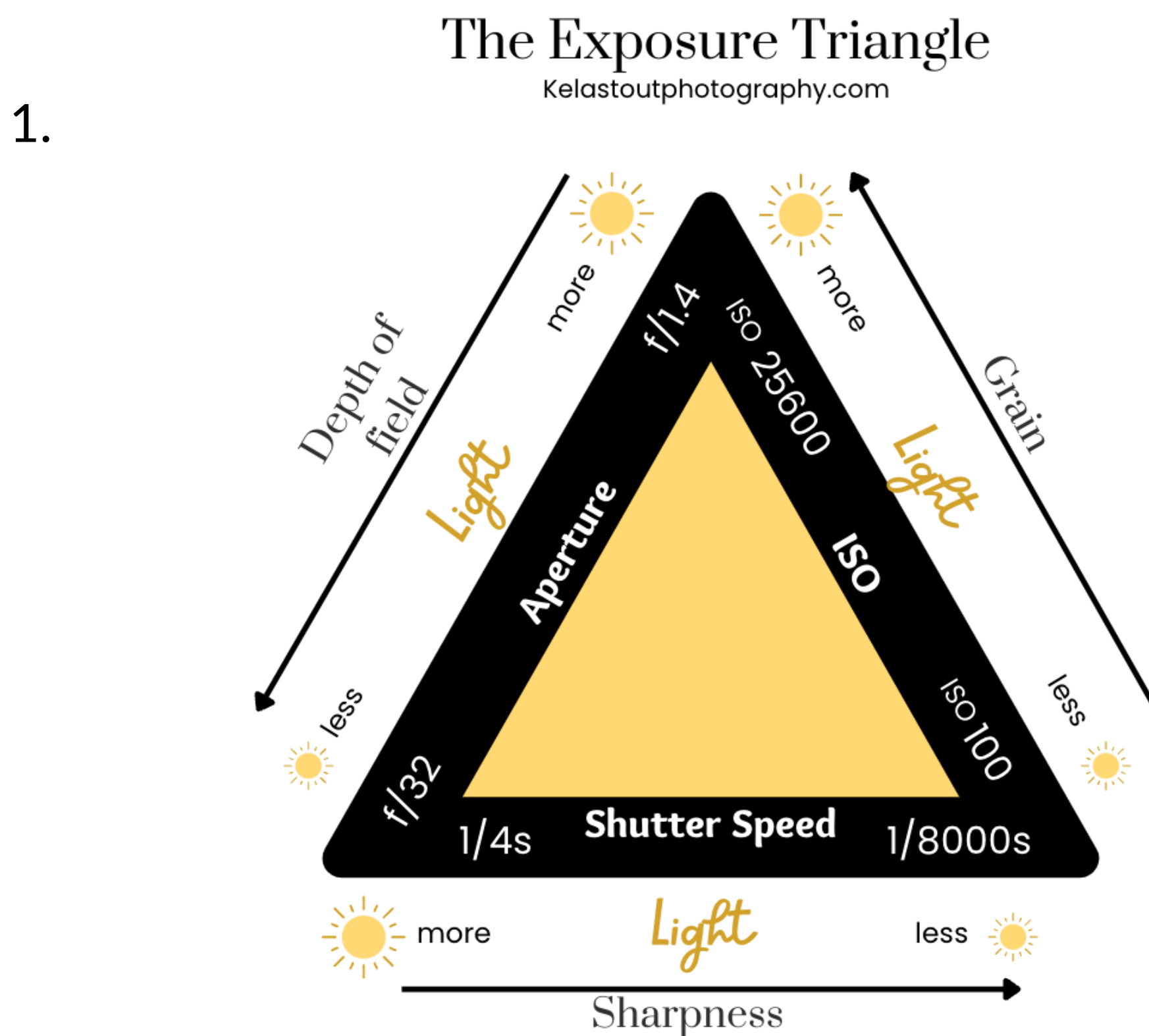
ISO, APERTURE, SHUTTER SPEED

Now for the fun stuff! These three settings are what makes a pro a pro. They all work together in unique ways to provide the artist with the perfect exposure, focus, and depth of field.

STARTING AT THE BASICS

View this diagram to get an idea of how they all work together.

TABLE 1.1 LIGHT TRIANGLE



ISO (International Standards Organization) is explained as the ability to gather light.

Refer to table 1.1: Lower the ISO number then less light will enter the sensor. Increase the ISO then more light can enter, but this can affect the amount of grain (aka noise) in an image. So, it is important to play around with your camera and see how high you can raise ISO without getting grainy images. I try to stay under 800 on a crop sensor camera and 1600 on full frame cameras, but the type of camera is what really matters. Grain isn't always bad because it can be stylistic as well.

Aperture (f stop) is how you control depth of field (how the image appears in relation to the background) in an image.

Refer to table 1.1: **Lower** the f stop number and **more light** enters the sensor along with a narrower depth of field (more background blur). **Increase** the f stop number and **less light** enters the sensor along with a large depth of field (less background blur).

Aperture also controls how many planes are in focus. For example take a look at the image below.



There are three distinct planes. Meaning the mom is one plane away from the camera, the baby is a second plane, and the dad is a third. These planes are stacked at different distances from the camera. I shoot at the lowest F stop for every session due to my shooting style. I tell a story and most of my shots are not posed. So, in this image you will notice only the baby is in focus and not the mom or dad. If I wanted the mom and dad in focus I would need to increase my F stop number. A rule of thumb is number of planes multiplied by 3 (3 planes x 3=9) 9 is what F stop number I would use to get them all in focus. **If everyone was posed and looking at the camera I would either have them all on the same plane or increase my F stop.**

Shutter Speed is the ability to capture movement.

Refer to table 1.1: Lower the shutter speed and more light will enter the sensor with more subject blur. Increase the shutter speed and less light will enter the sensor and less subject blur. If you want to see that a subject is moving and create a blur, then you would lower your shutter speed. If you want sharp photos that do not show the subjects movements, then you would increase your shutter speed. I keep my shutter speed around 500 or higher while working with children. This ensures they will be in focus and sharp while playing. Also, when you lower your shutter speed, this allows more light to enter the sensor so during low light conditions you may have to lower it, but try to stay above 250. Anything below that will be blurry if there is much movement.