[Shooting In Manual]
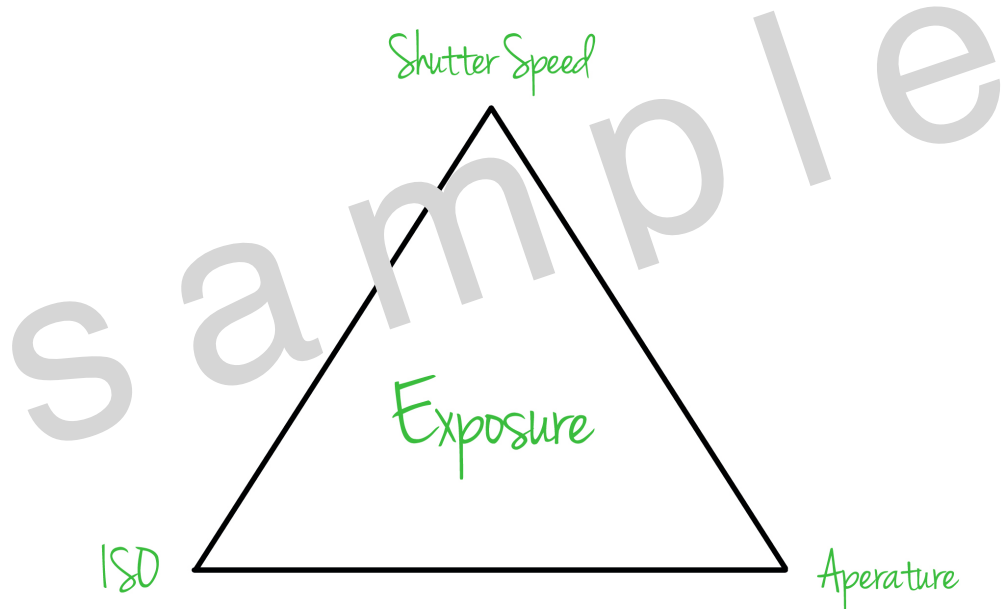
1:2 ISO

When talking about exposure, I mentioned ISO. This is one of the three parts that make up the exposure triangle:

Shutter Speed

Exposure

ISO

Aperature

ISO is measured in numbers. On most cameras, the lowest ISO number is 100; from there it increases, always doubling (100, 200, 400, 800, 1600, etc.) Depending on your camera, you may have few or many ISO settings. The ISO number basically tells you how sensitive your sensor is to light; the higher the number, the more light your sensor is receiving.

Take a look at the next four images. I started with a lower ISO setting (like 100) and increased it without changing any other settings. See how by increasing the ISO number, I was able to add light to the picture?

So how do you use this info when you're shooting? If you are in a lower light setting, you can increase your ISO to brighten your picture. You should know though, that the higher your ISO, the more grainy (more noise, less quality) your picture will be. Unless you are trying to do something creative (sometimes people like the grainy look because it adds texture and a vintage feel to an image), you should always try to use the lowest ISO setting as possible.

Just to give you an idea of the non-grainy vs. grainy look, here are a couple more apple pictures. The first was taken at ISO 500, the second at ISO 4000.

See how there is a lot of noise/texture in the second picture? I see it most in the shadows, mostly on the unlit side of the front apple. Some people really like that and even add it in in post processing.

For most cameras, no matter how many ISO settings you have, the last setting will always be grainy, usually to the point where you can't use the image. The closer you are to that point, the noisier your picture will be. You just have to judge in a situation if a certain amount of noisiness is acceptable. There have been situations where I'll take a picture because I want to capture a moment, even though the picture will be somewhat grainy.

Here are a couple examples of when to use a low ISO setting. These two images were taken when we visited the Santa Monica Pier. It was a bright sunny day with plenty of light. My ISO was set at 200.

The next two pictures were taken inside with no direct sunlight. A window is open on one side of the room, but the camera is underneath the sheets, creating a low light setting. ISO was set at 3200. See how the pictures still look really well lit? Thank you ISO!
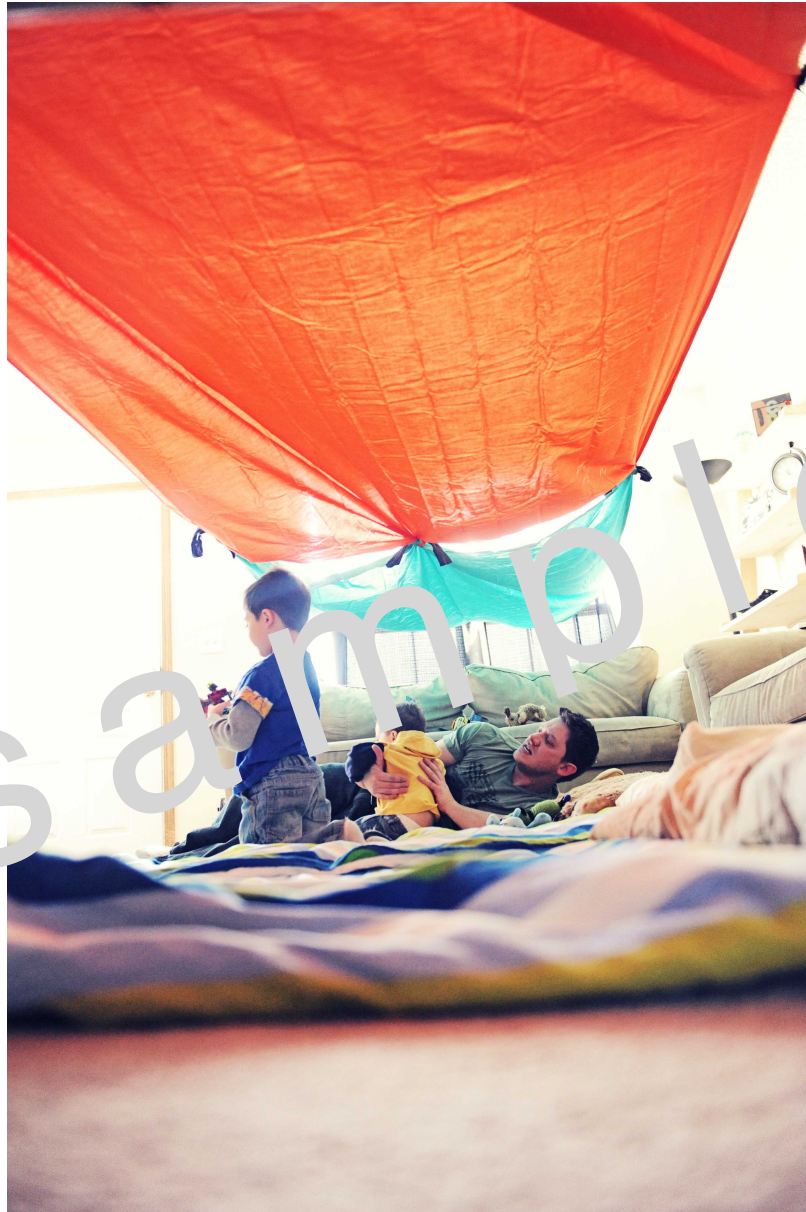
in summary

Use a low ISO setting in well lit settings (outside, bright sunny day, etc.) Image and colors will be vibrant, crisp and smooth.

Use a higher ISO setting in low light situations (inside, later in the evening, etc.) Image and colors will become more dull, less crisp, and more grainy as your ISO setting increases.