

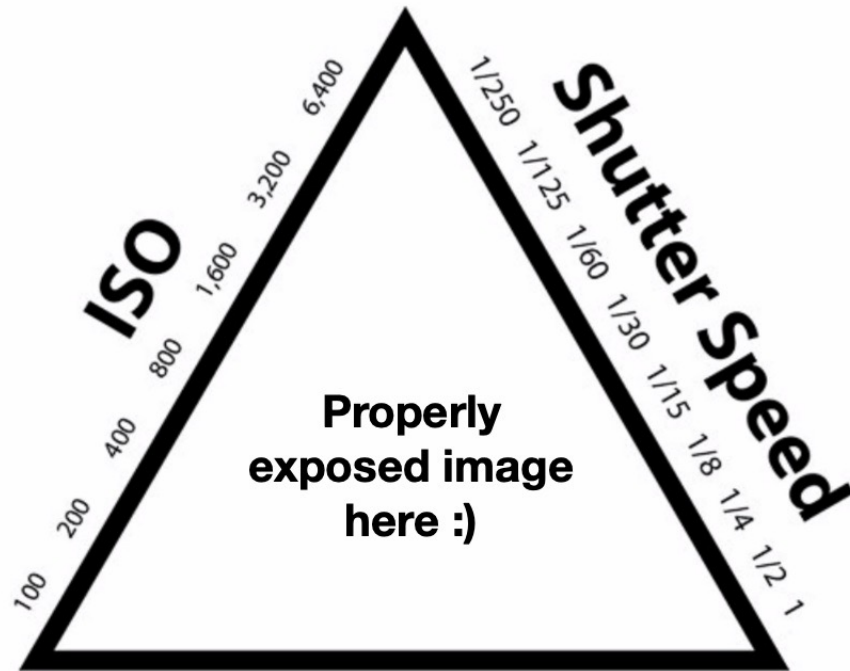
# Photography 101

by Noah Saylor

Concepts we'll cover:

- exposure triangle
- effects of camera settings
- stops of light
- white balance
- context vs. detail

# Exposure Triangle



f/2.8 f/4 f/5.6 f/8 f/11 f/16 f/22

**Aperture**

# Aperture

small aperture



F32 F22 F16 F11 F8 F5,6 F4 F2,8 F2 F1,4

large aperture

# Shutter

fast shutter speed



1/1000 1/500 1/250 1/125 1/60 1/30 1/15 1/8 1/4 1/2

slow shutter speed

# ISO

low sensitivity



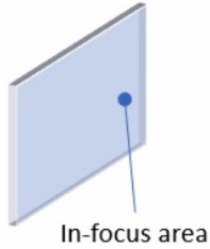
ISO 50 ISO 100 ISO 200 ISO 400 ISO 800 ISO 1600 ISO 3200 ISO 6400 ISO 12800 ISO 25600

high sensitivity

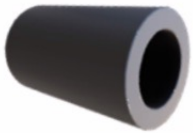
# Depth of Field (aperture)

## Depth of field

Shallow

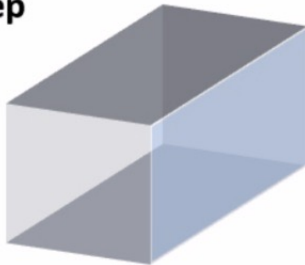
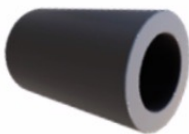


Moderate



F/5.6

Deep



F/11

## Bokeh (Out of focus blurring)



**Motion Blur**  
(shutter speed)

shutter opens



shutter closes



1/15



1/1600

# Digital Noise

(ISO)



ISO 12800



ISO 160



ISO 12800



ISO 160

What's a "stop"?

A “stop” is a relative halving or doubling of the amount of light hitting the sensor.

Brightening an image by 1 stop will let in twice the amount of light to the sensor.

Darkening an image by 1 stop will let in half the amount of light to the sensor.

## Changing a setting by stops

f/1.4	1/100	100
f/2.0	1/200	200
f/2.8	1/400	400
f/4.0	1/800	800
f/5.6	1/1600	1600
f/8.0	1/3200	3200
f/11.0	1/6400	6400

**Why is this important?**

So you can easily use one camera setting  
to compensate for another!

Also so you can read this:



so, for Sundays...

general starting point:

- keep shutter speed between 1/100 and 1/250
- keep aperture between f/1.4 and f/5.6
- keep ISO as low as possible

Pop quiz!

How to improve the  
exposure triangle?



**1/60**

**f/9**

**ISO 6400**



I AM WHO YOU SAY I AM

1/60

f/4  
~~f/8~~

+2

ISO 1600  
~~ISO 6400~~

-2



**1/1800**

**f/5.6**

**ISO 500**



1/225 +3  
~~1/1000~~

f/8 -1  
~~f/5.6~~

ISO 125 -2  
~~ISO 500~~



**1/160**

**f/1.4**

**ISO 300**



1/160

f/5.6<sup>-4</sup>  
~~f/1.4~~

ISO 4800<sup>+4</sup>  
~~ISO 300~~



**a noisy image is better than a blurry one!**

**1/160**

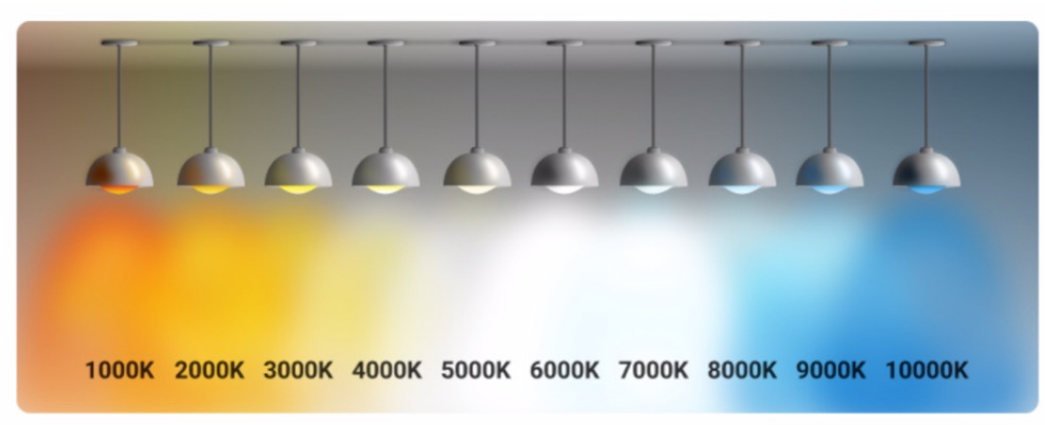
**f/5.6<sub>-4</sub>**

~~**f/1.4**~~

**ISO 4800<sub>+4</sub>**

~~**ISO 300**~~

**White Balance**



**Use Auto White Balance.**

**Shoot in RAW.**

# Detail vs. Context

(close-up vs. wide)



**Detail**

emphasizes the  
features of a subject

**Context**

gives extra meaning  
to your subject





**Detail**

emphasizes the  
features of a subject

**Context**

gives extra meaning  
to your subject



Put all this together.  
What do you get?



**55mm**

**1/320**

**f/2.8**

**ISO 400**



**18mm**

**1/160**

**f/2.8**

**ISO 4000**



**75mm**

**1/125**

**f/1.2**

**ISO 500**



**18mm**

**1/320**

**f/1.4**

**ISO 1250**



**150mm**

**1/200**

**f/2.8**

**ISO 1250**



33mm

1/2700

f/1.4

ISO 640



16mm

1/125

f/4

ISO 1000



160mm

1/320

f/5

ISO 3200



**27mm**

**1/105**

**f/8**

**ISO 320**

**What's wrong with these?**





**Random notes:**

-I promise, it's not about the gear

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-(except for lenses lol)

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shutter speed = 2 x focal length

- I promise, it's not about the gear
- (except for lenses lol)
- It's allllll about the light!
- Sensor size affects your focal length
- to avoid camera shake:
  - shutter speed = 2 x focal length
- Image Stabilization is great! If you have it, use it

Ultimately, a photo is a  
mode of communication.

When you take a photo,  
what are you trying to say?

Look through our social media,  
use that as a model.

Thanks!