Beginner Photography

with Quinn Aden

quinnaden.com

Your Camera

“The best camera is the one you have with you.”

Try not to use the excuse that your camera isn’t good enough to shoot this or that. Just go out and take pictures.

Read the manual. Cameras are one of those things that a manual is actually useful for!

Photography - what is it really?

To understand Photography in its most fundamental form, we have to understand **light.**

Technicalities aside, when we are taking a picture, we are **capturing light**.

It’s never too early to make light your priority.

Why is light important?

Have you ever noticed that when you take a picture in a dark space, especially on auto mode, you get a grainy / noisy image?

Our goal: reduce that noise!

We want to achieve less grain. The cleanest image possible.

Less noise = “cleaner” image. More noise = “noisy” image.

Composition...the most important thing in photography.

POOR FRAMING

PROPER FRAMING

Proper Framing - Top line through the eyes

Rule of Thirds - Vertical

Proper Framing - Top line through the eyes

Typical Landscape Framing

Auto Mode

Don’t be afraid to use it! It’s there for a reason.

BUT

Make it your goal to get off of auto mode, and into manual mode.

Shooting Modes - start with....

← Click the image to visit the link

Auto - full auto mode, you have control over no settings

Portrait mode - usually the camera tries to blur the background in this mode

Landscape mode - use when you want as much of the image to be in focus as possible

Sports Mode - use to freeze any type of fast action, such as sports or your kids or dog running

Photoshoot #1 - Rule of Thirds

1. In 3 photos, show strong examples of lower thirds and the use of your grid. Camera can be on auto if you want.
2. Take one successful photo on each of the following modes: Portrait, Sports / Kids, Landscape. If you don’t have those modes, you can use a different one. Use your grid and rule of thirds for these too.

Rule of Thirds - More Examples

Rule of Thirds - More Examples

Rule of Thirds - More Examples

Rule of Thirds - Don’t be afraid to break the rules

Rule of Thirds - More Examples

It doesn't have to be perfect!

Notice in this photo, his eyes aren't on the line. This is a creative choice. These lines are just rough guides, not hard rules.

Composition...the most important thing in photography.

GOOD FRAMING / COMPOSITION

“Leadroom”

Leadroom is the space in front (in the direction of) moving or stationary subjects.

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PROPER LEADROOM

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PROPER LEADROOM

“Headroom”

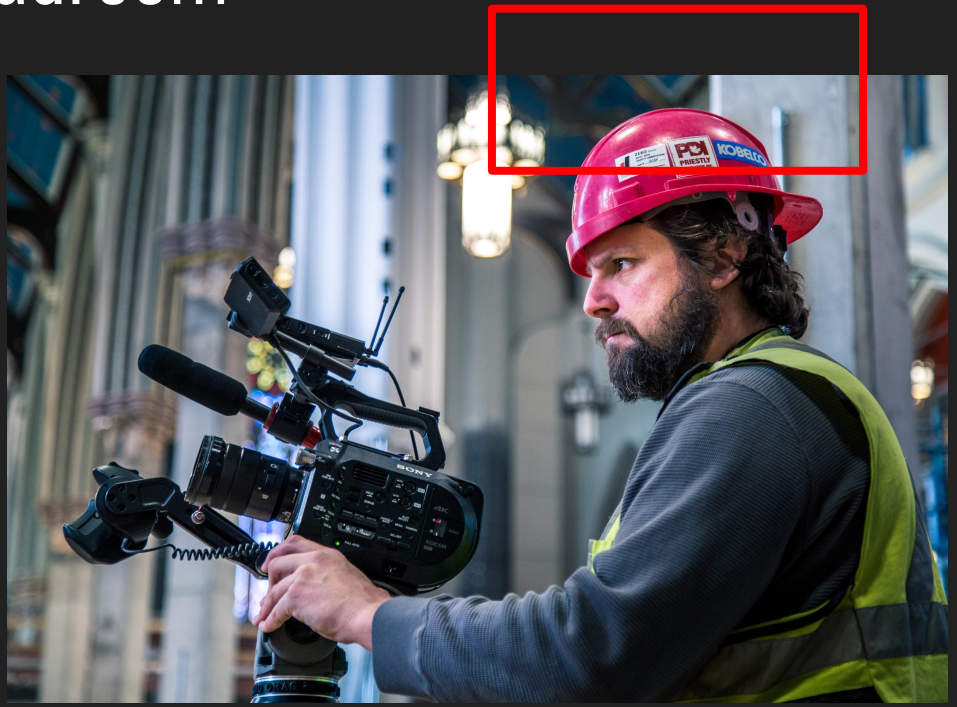
Headroom is the distance between the top of the subject’s head and the top of the frame. Headroom should also be considered when shooting objects.

PROPER HEADROOM

“Headroom”

Notice the space above his head.

With headroom, you must also keep your rule of thirds in mind.



PROPER HEADROOM

“Headroom”

Notice how we are using the rule of thirds while keeping leadroom and headroom in mind.

Bringing all of this together will give you the best possible image!

PROPER HEADROOM & LEADROOM

Zooming In

When should you use your zoom?

There is no hard rule.

If you think the object or subject should be closer, feel free to zoom!

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Zooming In - Optical vs Digital

Be careful!

Have you ever noticed that some cameras will advertise “optical zoom”? On the other side we have digital zoom.

What do they mean?

Digital Zoom vs Optical Zoom

Optical Zoom - no quality is lost when you zoom in. Optical zoom means that the lens is physically zooming in. You need a zoom lens for this.

Digital Zoom - quality is lost. The best example is your phone. When you zoom with your phone camera, you are using digital zoom and you will notice the photos have more “noise” or grain.

Choosing when to zoom

If you don’t have a zoom lens, how do you get the picture you want?

- Move around, move closer to your subject
- Change your lens (if applicable)
- Find another way to get creative with the photo at the distance you are at
- In a pinch, use digital zoom. You can also zoom in editing

Photoshoot - Scavenger Hunt

Click here to view assignment

Photo Scavenger Hunt

- Directions: You will be going on a scavenger hunt! You will need to find interesting examples of the items listed below. Use your knowledge of the rules of composition when taking photos.
- These items chosen are meant to build your skills of seeing things in your surroundings more carefully as well as to develop your artistic senses.
-

Photo Scavenger Hunt

1. A line – curvy, wavy, straight, diagonal… your choice

2. Contrast – in color, in texture, in size, in shape, in style, in point of view… your choice

3. Beauty - what that looks like to you is all your choice

4. An Ant's View Of The World – looking at the world from down low or very small

5. Shape – look for natural, organic, or accidental shapes–circle, square, rectangle, triangle, octagon, hexagon… your choice

More on next slide

Photo Scavenger Hunt

6. Form – anything that is 3 dimensional – it has length, height & width

7. Something That Represents You – Anything… really think about how you could do this visually

8. Texture – soft, smooth, rough, crusty, bumpy, sharp…

9. A Symbol – Something you can look at & understand visually – without words you understand its meaning

10. The Rule of Thirds – find or create strong examples

Getting off of auto, one step at a time

So far we have been shooting on auto mode and letting the camera do the working of figuring out all of the different settings.

The computer in the camera is very smart, and it makes very fast decisions to take what it thinks is the best possible picture and best exposure.

Light - it’s what your camera needs

The first thing all cameras that are on auto mode detects is how much light it has to work with.

Guess what? You should do the same.

Basically, when taking a picture, we are always just trying to NAIL THE EXPOSURE!

Exposure

The term exposure essentially refers to the brightness of the photo. A properly exposed photo means that it’s not too bright or not too dark.

Overexposed - too bright, “blown out” details

Underexposed - too dark, dark details

Exposure

Underexposed

Properly Exposed

Overexposed

Proper Exposure

Access available light

If you are taking a picture on manual mode, the first thing we are going to look for is how much light we have to work with.

The best possible place to be if you want the most light is outside. If you’re outside, you don’t have to worry about how much light you have.

Shooting in darker spaces

If you are in a very dark place, you are most definitely going to have to create some light.

Use your flash, or turn on some lights if available.

If you are in a dimly lit space, the quality of the sensor in your camera will determine how far you can “push it”.

Testing your camera's limits

When we say "pushing it" we are referring to how far we can push our camera in order to get the cleanest image possible.

Using our ISO, Shutter Speed and Aperture, we can get the best possible image. It takes a lot of practice to understand how far you can push it.

Shutter Speed!

Our first lesson in one of the manual camera settings - shutter speed. Exciting!

What is the shutter?

The shutter is basically a little door type of mechanism that opens and shuts very quickly.

Example of fast shutter

Example of slow shutter

How does Shutter work?

Fast shutter - used to freeze action. It opens and closes very quickly, as fast as 1/10000th of a second.

Slow shutter - used to create “long exposures”. Often used to blur subjects. Can be a slow as minutes, for example 60/1, which is 60 seconds.

Shutter is for more than just for effects

Using your shutter manually is great for creating certain effects. But most importantly, it is one of the fundamental settings that you need to master in order to take a great picture.

Choosing your shutter again has to do with how much light we have to work with.

Shutter outside

If you’re outside, you can usually get away with a very fast shutter speed. This typically makes photography a bit easier.

If you’re in a darker space, you have to use a slower shutter speed in order to allow more light into the camera.

How shutter gives you more light

The longer the shutter is open, the more light that you are allowing to hit your sensor. Therefore, the brighter your picture will be.

Say you use a shutter speed of ¼ of a second. That would be considered slow, and you would be allowing a lot of light into the sensor.

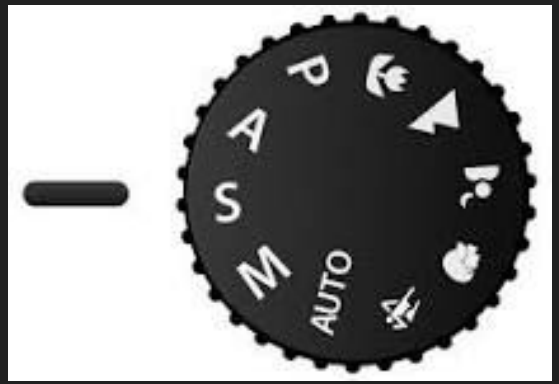
Choose wisely!

So if a slow shutter speed gives you more light, why not just use that all the time? We can’t!

Unless you are on a tripod, I recommend you use a minimum shutter speed of 1/100. If you have shaky hands, I would go up to 1/200 minimum. Otherwise, you might get blurry photos.

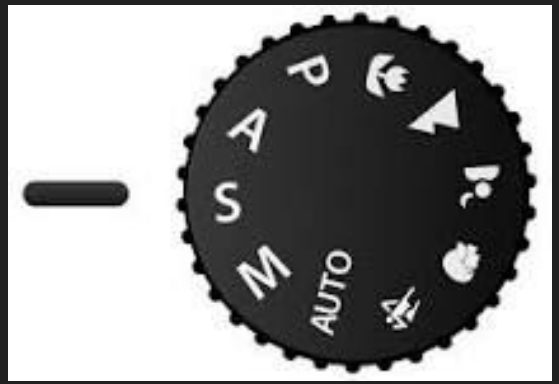
Learning shutter priority

We are going to learn shutter priority mode. Most cameras use the “S” as shutter priority mode.



Learning shutter priority

In shutter priority, we are telling the camera to ALWAYS shoot at a specific shutter speed. It will adjust the other settings to give you a proper exposure.



Practice by looking at photos

Shutter:

Practice by looking at photos

Shutter:

¼ second

Practice by looking at photos

Shutter:

Practice by looking at photos

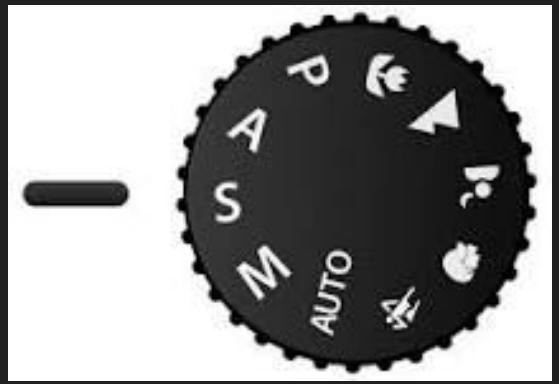
Shutter:

1/2000 second

This week's assignment

Take as many photos as you can using shutter priority mode, and explain why you chose shutter speed.

Shoot both fast and slow moving / static subjects.

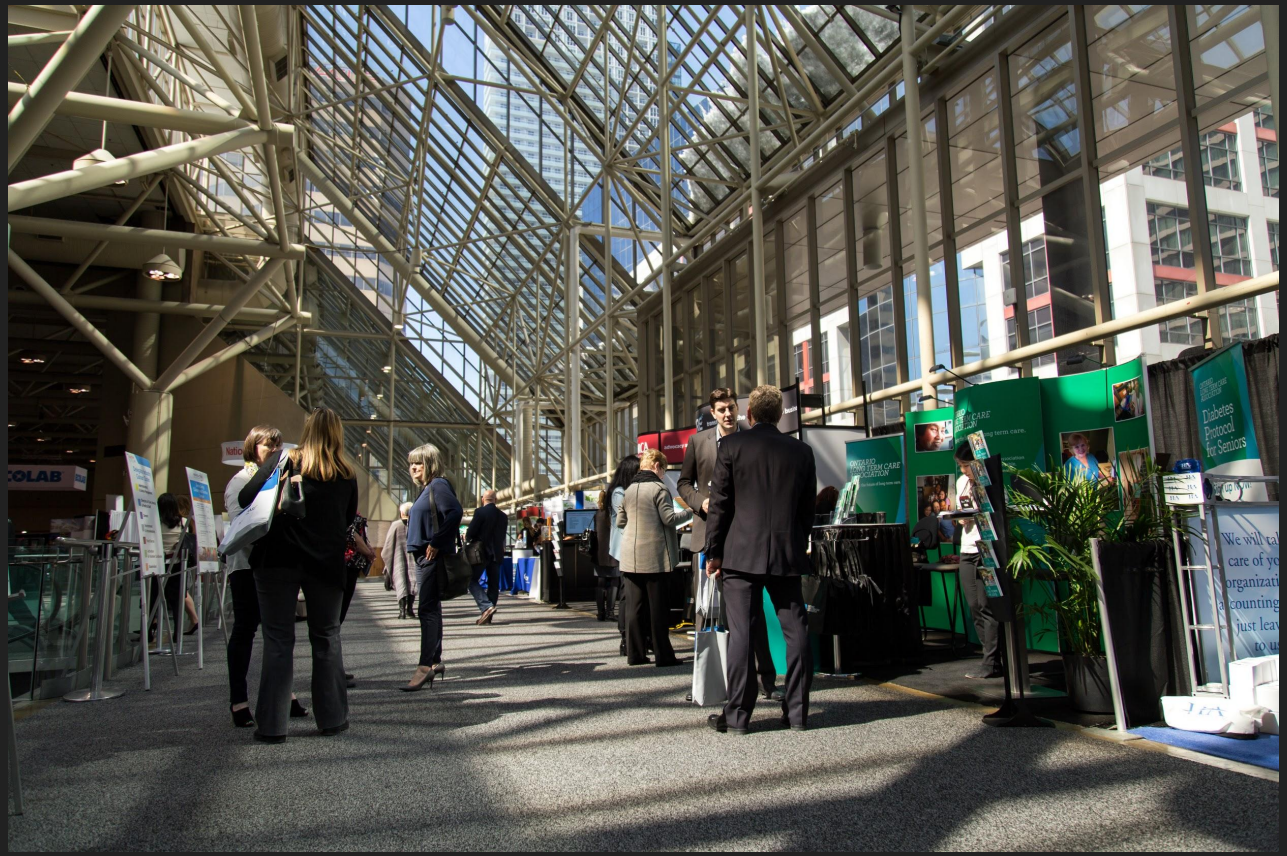


Light, light, light. Did I mention light?

Using Available Light

Creating Light

Using Available Light



Using Available Light

Creating Light

Shutter and Aperture. Choose wisely!

So if a slow shutter speed gives you more light, why not just use that all the time? We can't!

Sometimes we don't have enough light. We have to use Aperture and ISO with the shutter to give us a good exposure.

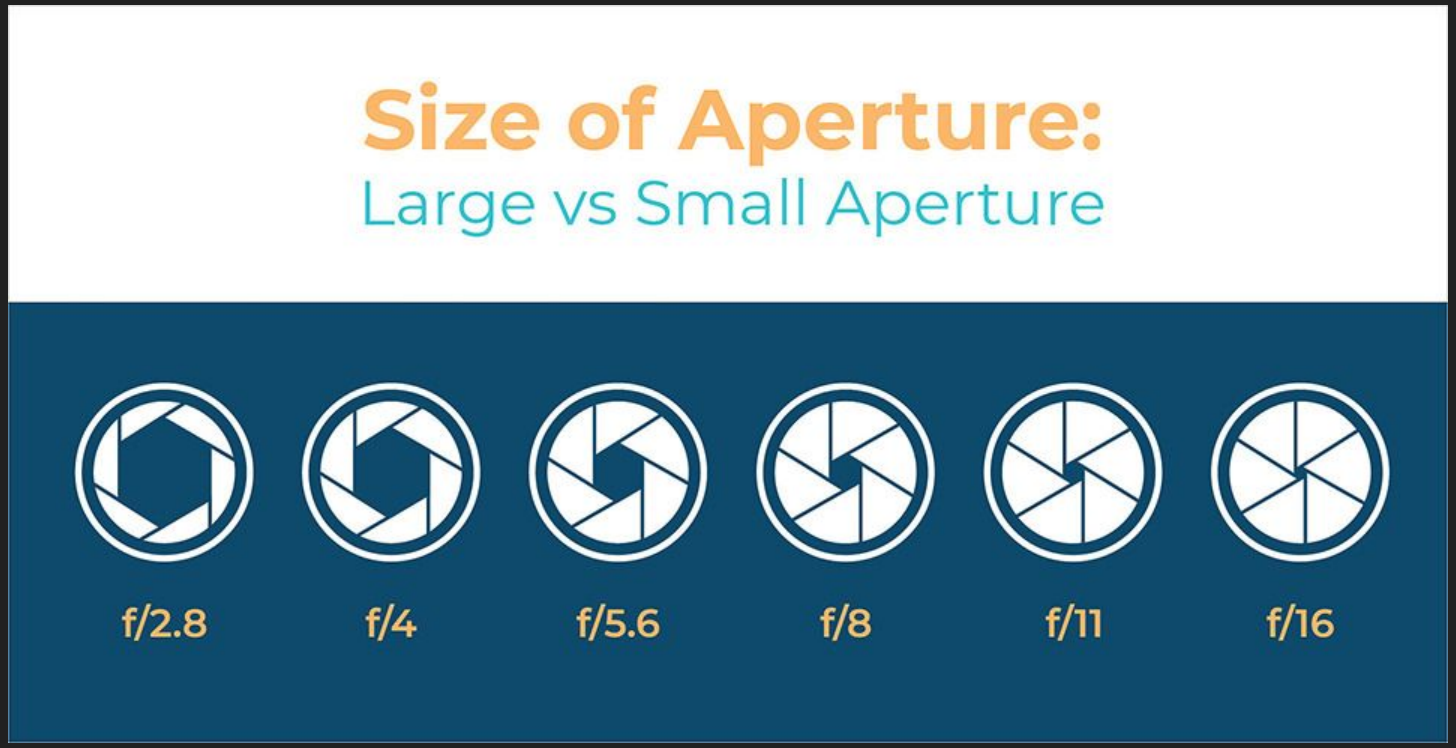
For now, we are only focusing on one thing at a time. This week will be Aperture. Soon, we will use all 3 together manually!

Aperture

In optics, an aperture is a hole or an opening through which light travels.

In photography, we use a numbering system.

Aperture

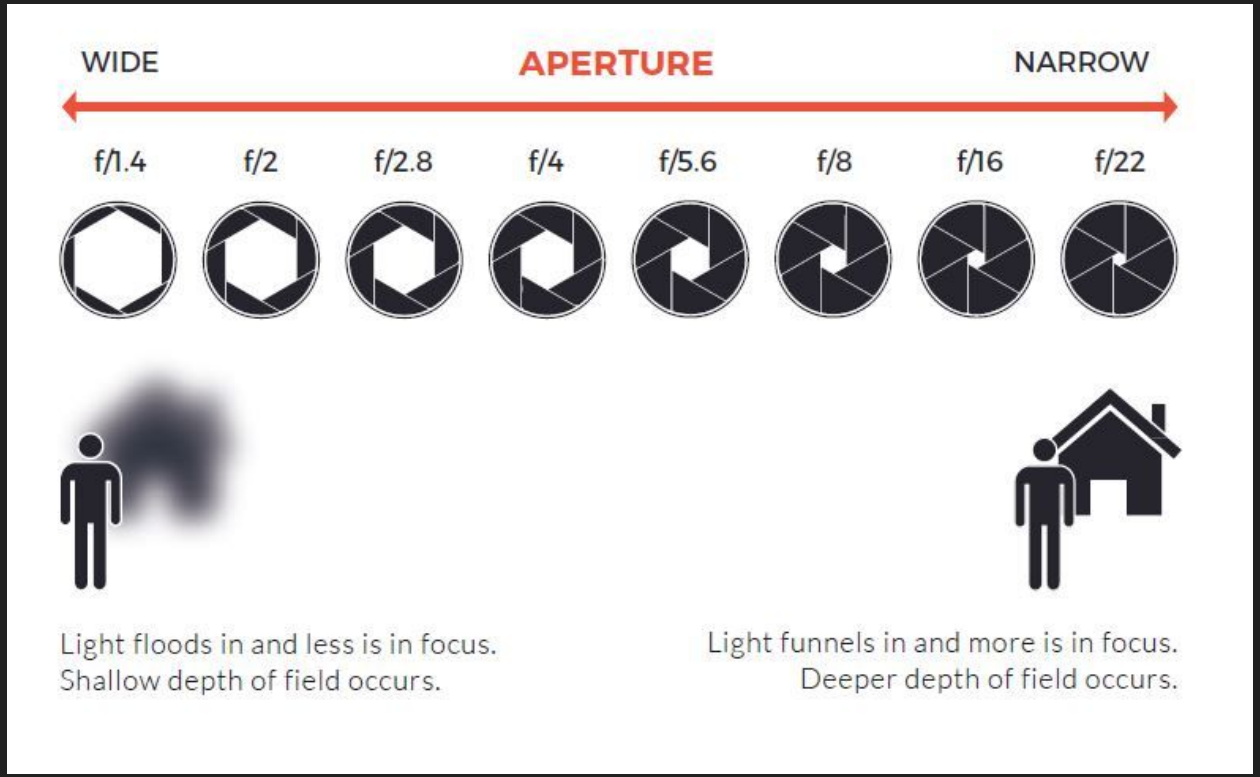

Size of Aperture:
Large vs Small Aperture
f/2.8
f/4
f/5.6
f/8
f/11
f/16

Aperture explained

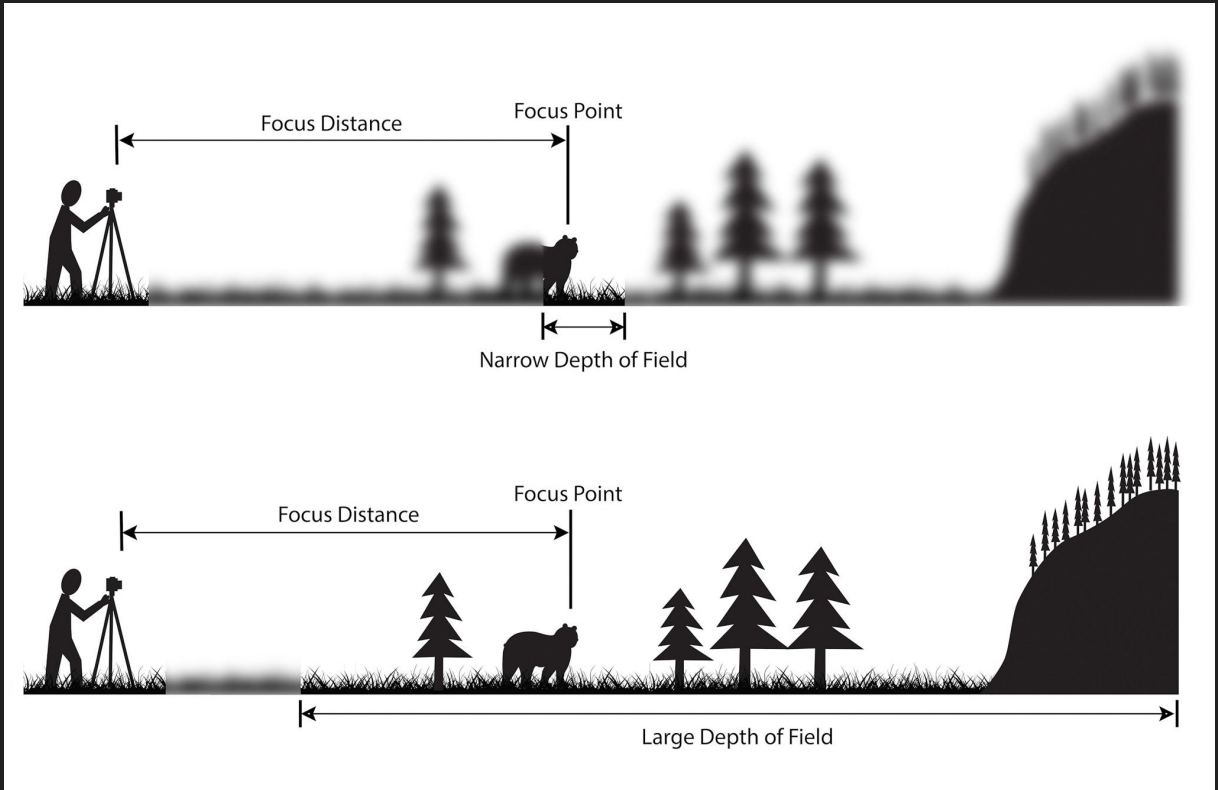
You'll see f-stops referred to as f/numbers. For example f/2.8, f/4, f/5.6, f/8, f/22

Moving from one f-stop to the next doubles or halves the size of the amount of opening in your lens (and the amount of light getting through).

Aperture


WIDE
APERTURE
NARROW
f/1.4
f/2
f/2.8
f/4
f/5.6
f/8
f/16
f/22
Light floods in and less is in focus.
Shallow depth of field occurs.
Light funnels in and more is in focus.
Deeper depth of field occurs.

Depth of field



Shallow Depth of Field

Shallow Depth of Field

Large Depth of Field

Large Depth of Field

Shallow Depth of Field

Using Aperture to change Depth of Field

An easy way to remember is:

Lower f-stop number (ex. 2.8), lower number of things that will be in focus.

Higher f-stop number (ex f18), higher number of things that will be in focus.

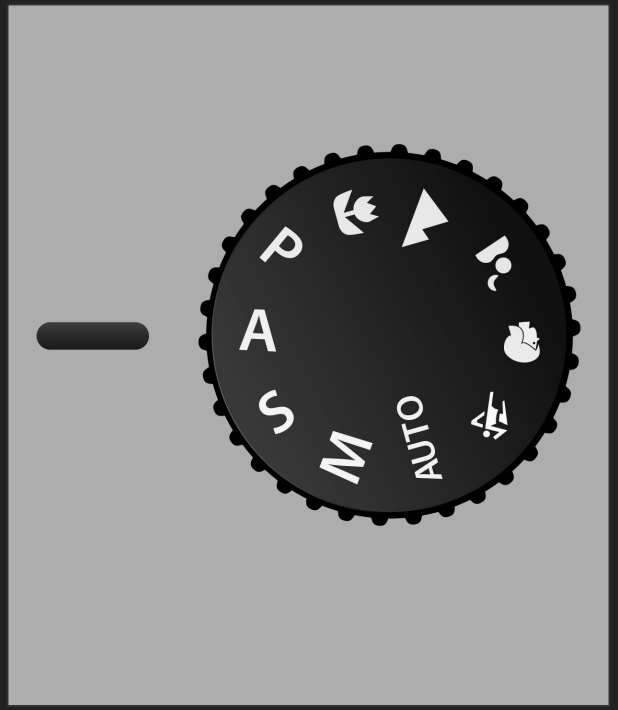
The result doesn’t change, no matter what the other settings are on your camera.

Aperture Priority

Same idea as shutter priority.

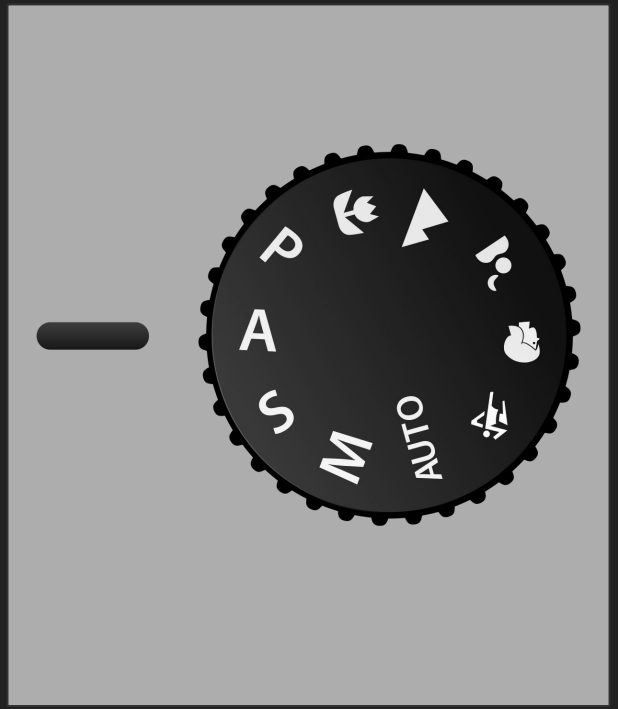
You set the aperture you want.

The camera will automatically adjust the ISO and shutter speed to give you a proper exposure, and it will always shoot at that aperture.



Aperture Priority Example

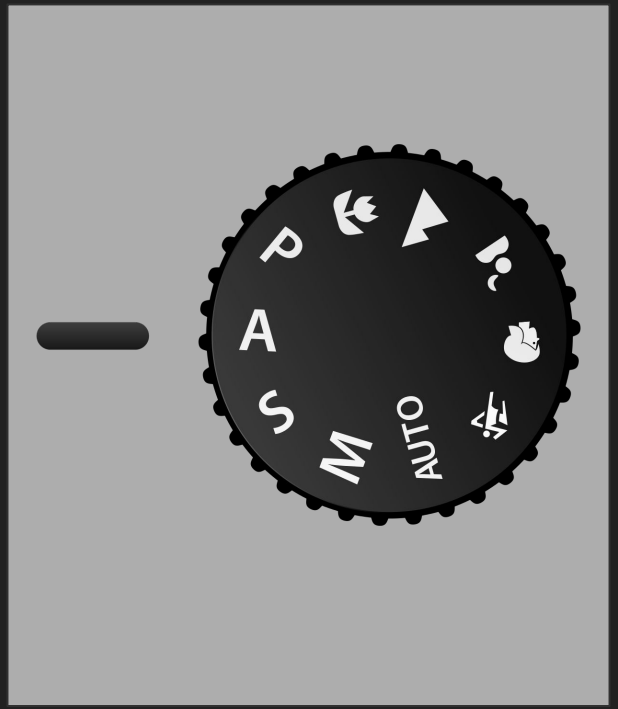
If you were shooting a photo of a farmer’s field and you wanted to get as much in focus as possible, what aperture would you set to?



Aperture Priority Example

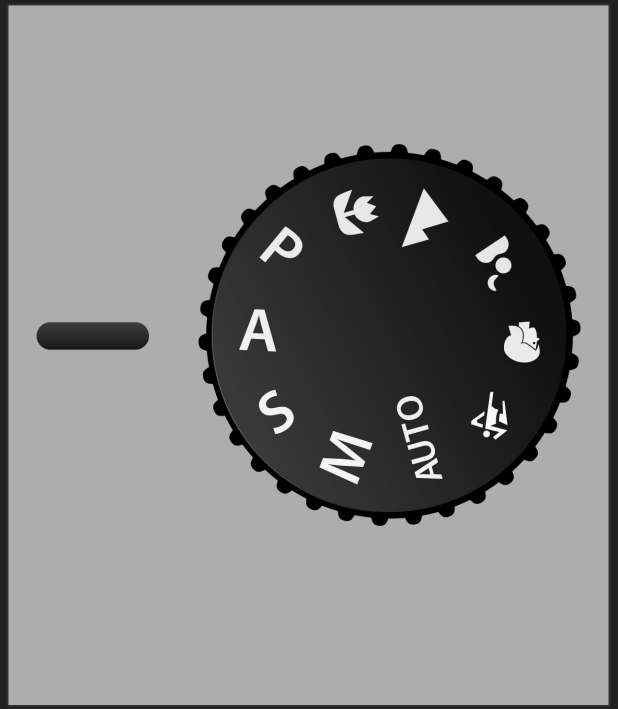
If you were shooting a photo of a farmer’s field and you wanted to get as much in focus as possible, what aperture would you set to?

High number - f22



Aperture Priority Example

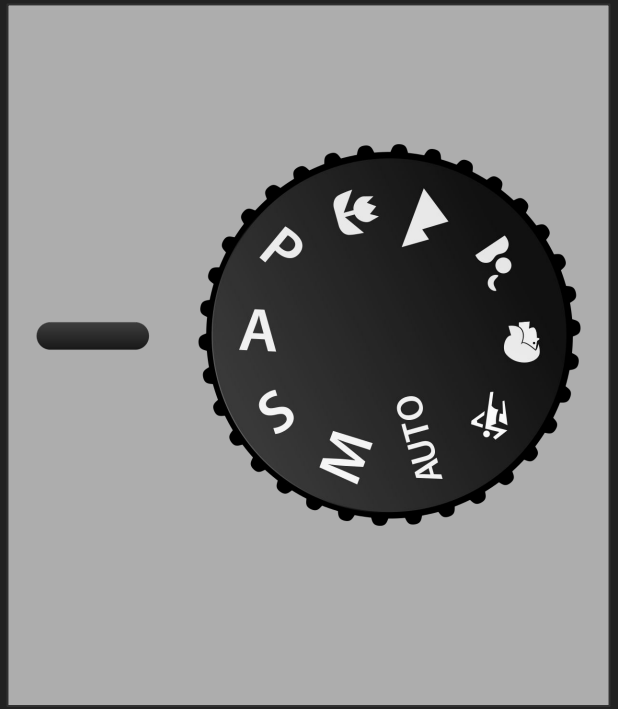
If you were taking a portrait and wanted only just their eyes and face to be in focus, what f-stop would you choose?



Aperture Priority Example

If you were taking a portrait and wanted only just their eyes and face to be in focus, what f-stop would you choose?

f4 - lower number



Assignment

Shoot on Aperture Priority Mode only.

Show me 3 examples of how you used Aperture Priority Mode to your advantage. This can be by showing me shallow depth of field or large depth of field.

Get creative with it!

ISO - Basically, it's artificial light

Stands for International Organization for Standardization.

One way to add more light when you need it is to increase your ISO. But be careful with it.

We are only going to be setting our own ISO when we are on full manual. Otherwise, we are going to let the camera do it.

ISO

Why not always just let the camera do it?

Because the camera doesn’t know best - you do!

The camera will increase the ISO so high sometimes that it will make your photo “noisey” and add grain.

High ISO left / Low ISO right

These are not my photos and I will link to the photographer

ISO - How to study it

When you’re outside in bright light, notice the lower ISO number.

When you increase your shutter speed, notice the higher ISO number. The slower your shutter, the lower your camera will need to bump up the ISO.

ISO - The main rule

The main rule with ISO is that we want to use it LAST.

First, do what you can with shutter speed and aperture.

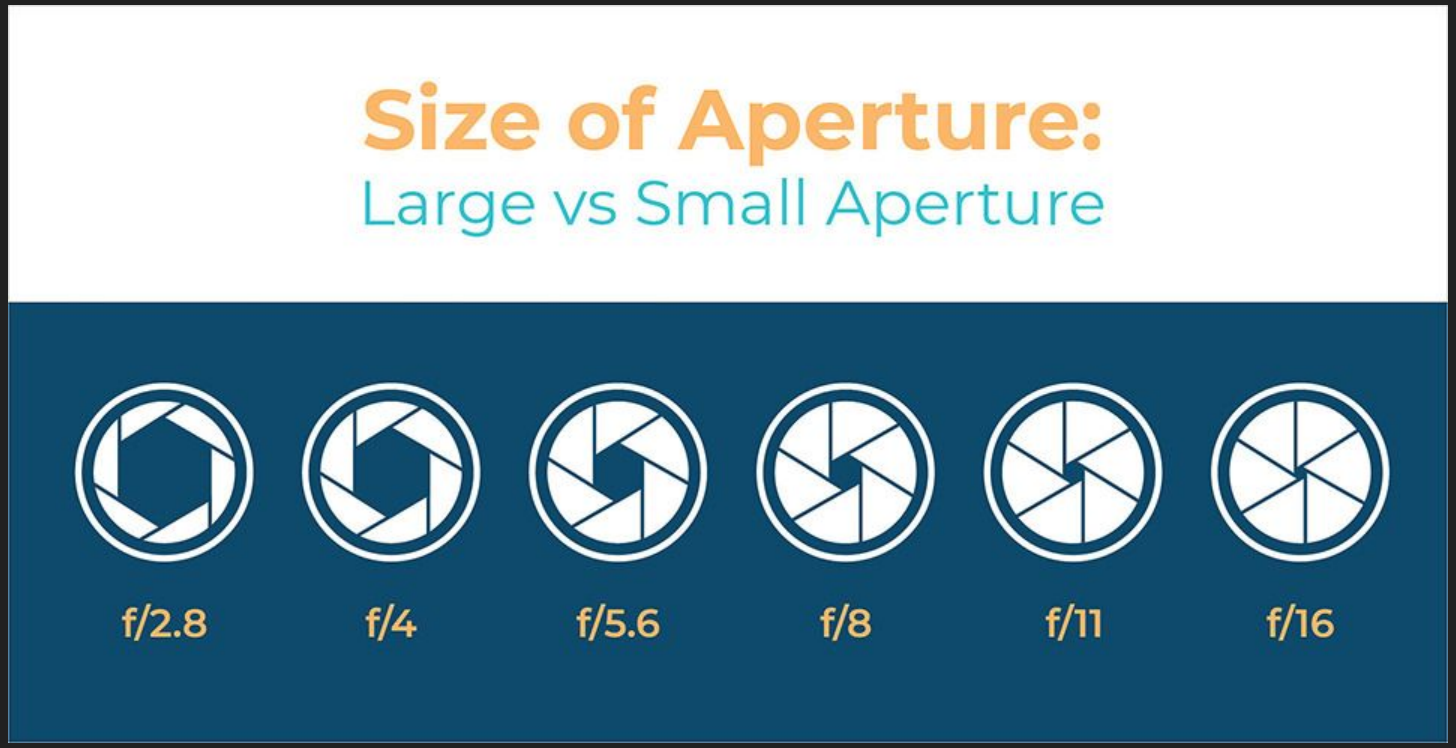
Then, if you need to increase ISO, do so.

Shutter Speed, Aperture, ISO

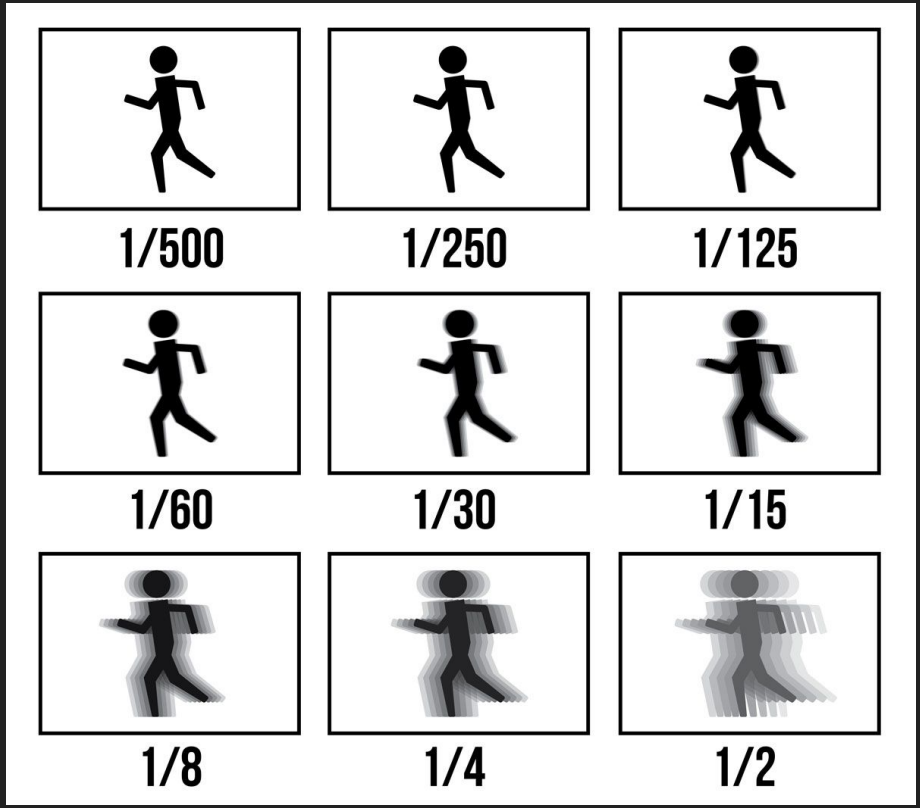
Now that we know what each of these 3 things do, we are going to bring them all together in order to get a proper exposure on our images.

First, let’s review.

Review: Aperture



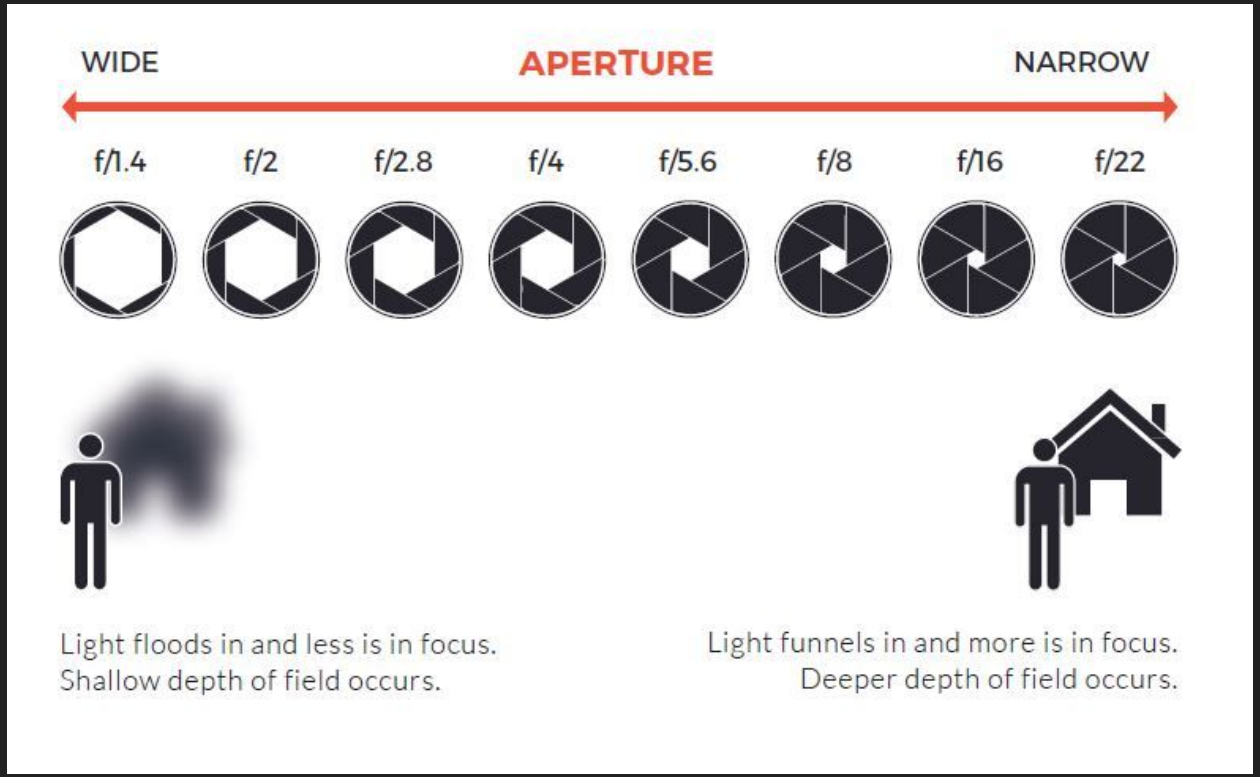
Review: Shutter Speed



Review: ISO

These are not my photos and I will link to the photographer

Aperture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Shallow depth of field occurs.
Light funnels in and more is in focus.
Deeper depth of field occurs.

Review: Depth of field

Using Aperture to change Depth of Field

Review:

Lower f-stop number (ex. 2.8), lower number of things that will be in focus.

Higher f-stop number (ex f18), higher number of things that will be in focus.

The result doesn’t change, no matter what the other settings are on your camera.

Bringing everything together for good exposure

Notice how these images look very different, except for one thing.

The exposure is all the same!

And it’s proper exposure.

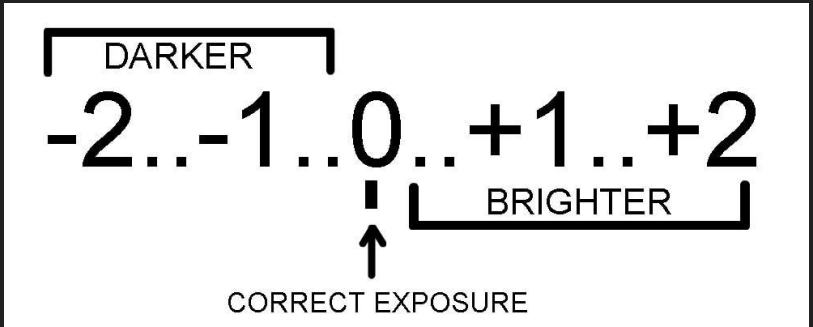
Aperture and Shutter Speed for Exposure

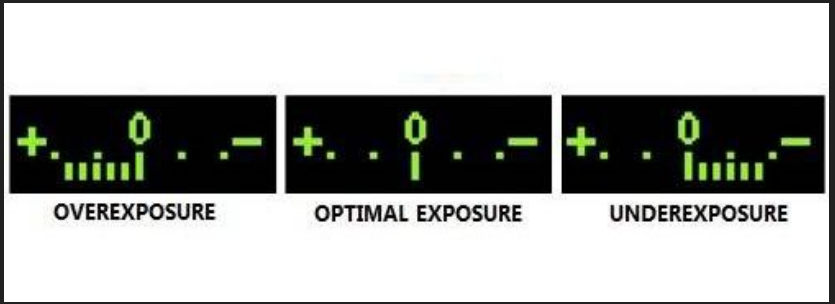
We are going on Manual Mode! (M)

- For now, set your camera to auto ISO (typically not recommended if you are going full manual, but for the sake of this exercise)
- Use your light meter to determine if the exposure is at least close
- Change shutter speed and aperture to affect exposure

Using the light meter

In your viewfinder and on your LCD screen there is a light meter that looks like this:





Assignment

- Shoot ONLY on Manual (M)
- Stay on auto ISO
- Show me examples of small and large aperture while achieving proper exposure (adjust your shutter speed)
- Show me examples of slow and fast shutter while getting achieving exposure (adjust your aperture)

So, now that you know how to shoot manual...

It’s great to know how to shoot on manual, but are we going to use it all of the time?

Nope.

Especially when you are using variable f-stop lenses (ie 3.5-5.6), sometimes manual isn’t the best. Why?

Variable Lenses

When we zoom in with our variable lens, we lose light. If you are on FULL manual mode (including ISO), every time you zoom in, your exposure is going to change. You’re then going to have to compensate somehow. Try it out on manual (make sure you’re on manual ISO too).

How to fix it - Priority!

Losing your good exposure when you zoom?

Remember, the priority in shutter priority is the shutter speed. Then the camera adjusts the exposure for you beyond that. Same goes for aperture priority, with aperture being the first priority. Then the camera adjusts exposure.

Another option - Auto ISO

Setting your camera to auto ISO is a good option for this as well, but BE CAREFUL! When you're on auto ISO, make sure the number isn't climbing too high.

If you're outside or have a lot of light, auto ISO will do just fine.

Exposure Compensation

When you're on a priority mode, you can use a tool called Exposure Compensation. You'll notice something that looks like your light meter.

Exposure Compensation

While in a priority mode, if you take a picture and it is too bright or too dark, use your exposure compensation.

Keep in mind that if you change this setting, it is set that way until you change it back.

Quiz Time!

Choose the best option for the upcoming questions.

ALL shot handheld.

Remember, you can achieve a proper exposure with many different settings coming together! It all depends on the look you are going for.

Photo #1

A) f4, 1/4000 sec, 4000 ISO
B) f22, 1/4000 sec, 500 ISO
C) f4, 1/4000 sec, 500 ISO

Photo #1

A) f4, 1/4000 sec, 4000 ISO

B) f22, 1/4000 sec, 500 ISO

C) f4, 1/4000 sec, 500 ISO

Photo #2

A) f20, 1/100 sec, 160 ISO
B) f22, 1/4000 sec, 100 ISO
C) f8, 1/100 sec, 8000 ISO

Photo #2

A) **f20, 1/100 sec, 160 ISO**
B) f22, 1/4000 sec, 100 ISO
C) f8, 1/100 sec, 8000 ISO

Photo #3

A) f4, 1/80 sec, 100 ISO
B) f22, 1/10 sec, 100 ISO
C) f14, 1/80 sec, 500 ISO

Photo #3

A) f4, 1/80 sec, 100 ISO
B) f22, 1/10 sec, 100 ISO
C) f14, 1/80 sec, 500 ISO

Photo #4

A) f14, 1/100 sec, 400 ISO
B) f4, 1/200 sec, 100 ISO
C) f1.8, 1/400 sec, 100 ISO

Photo #4

A) f14, 1/100 sec, 400 ISO

B) f4, 1/200 sec, 100 ISO

C) f1.8, 1/400 sec, 100 ISO

Quinn's Rules to Remember

- Minimum 1/100 shutter speed for handheld shooting. 1/160 to be safer
- Use your aperture and shutter speed to get a good exposure before relying on high ISO
- Use lowest ISO possible!
- Use your rule of thirds, and your grid
- Break the rule of thirds and break your grid. But have a reason when you do it
- HAVE FUN!

Don’t hesitate to ask

If you ever have any questions, don’t hesitate to ask me. I’m always happy to help.

photographer@quinnaden.com

Most photographers are happy to help too, so always ask your photography friends!