

Mastering Memes

Some people learn visually rather than by text.

Here are some visual guides.

You can print individual pages if you find an item of interest.

If you find more Memes please send them to Paul who will update this list

<MORE LIGHT NEEDED



LESS LIGHT NEEDED>

APERTURE



Small aperture
Deep Depth of Field (Focus)

Large aperture
Shallow Depth of Field (Focus)



F/32 F/22 F/16 F/11 F/8 F/5.6 F/4 F/2.8 F/2 F/1.4

SHUTTER SPEED

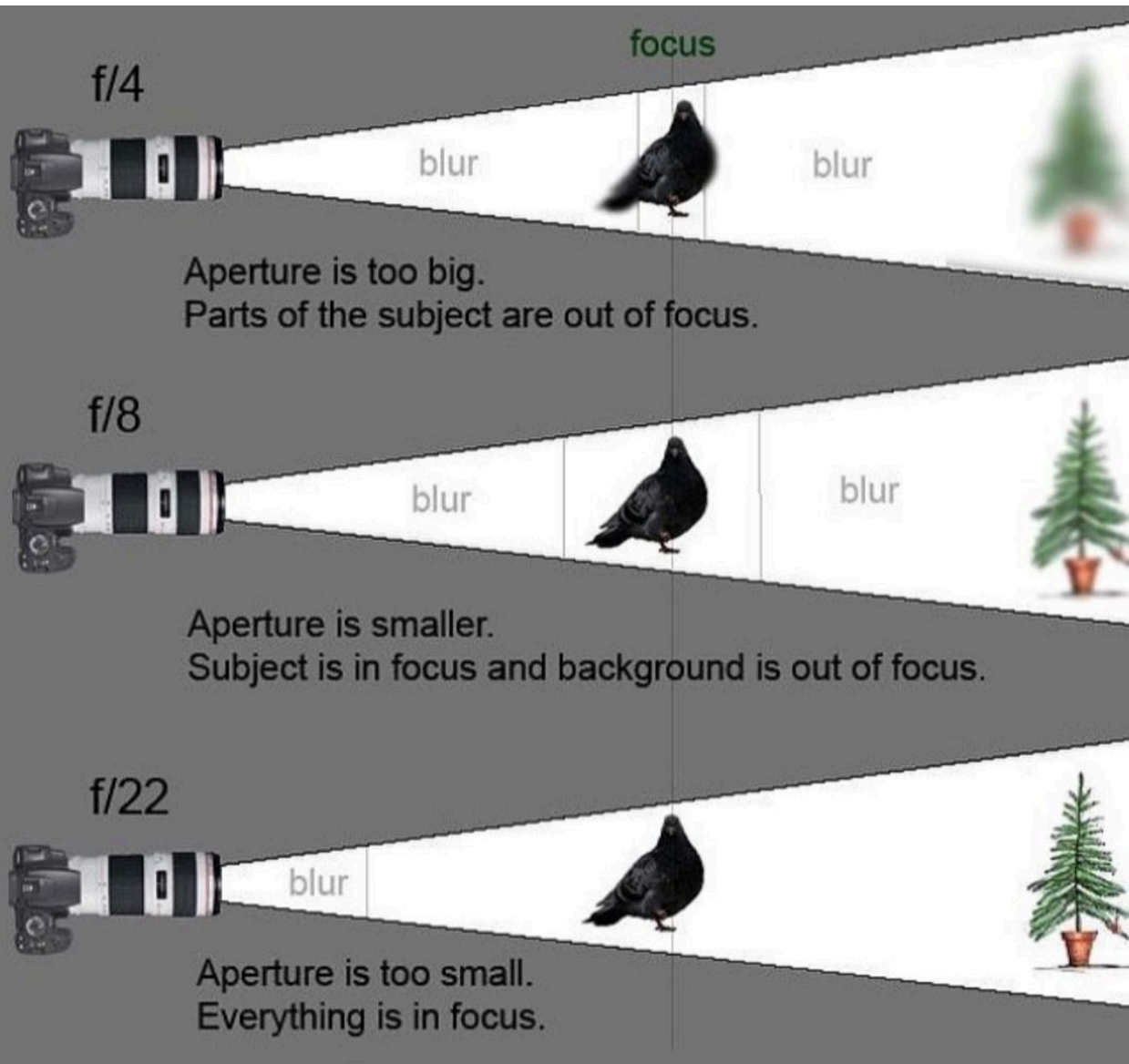


1/500 1/250 1/125 1/60 1/30 1/15 1/8 1/4 1/2

ISO



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



Aperture Setting



For Group Shots

as a general rule, your aperture number should be slightly higher than the amount of people in the shot in order to keep everyone in focus with people being as in line with each other as possible



○ 2.8



○ 4



○ 5.6



○ 7.1



○ 8

PHOTOGRAPHY TIPS

APERTURE CHEATSHEET



f/1.4

LOW LIGHT



f/2

PORTRAIT



f/2.8

HUMAN ACTION



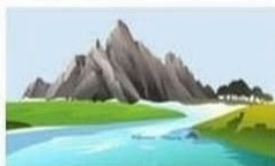
f/4.0

WILDLIFE



f/5.6

GROUPS



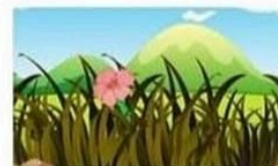
f/8

LANDSCAPE



f/11

**MACRO WITH
DETAILS**



f/16

**LANDSCAPE
WITH DEPTH**



☒ F22



☒ F16



☒ F11



☒ F8



☒ F5.6



☐ F4



☐ F2.8



☐ F2



☐ F1.4

FIRST OF
A NEW SERIES
TO COLLECT

Digital CHEAT SHEET Camera

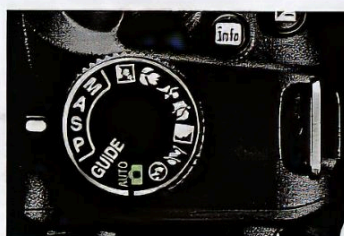
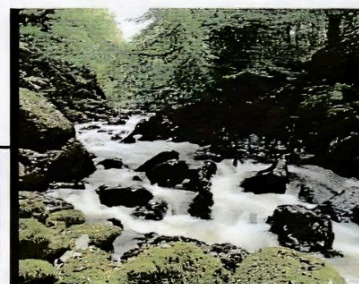
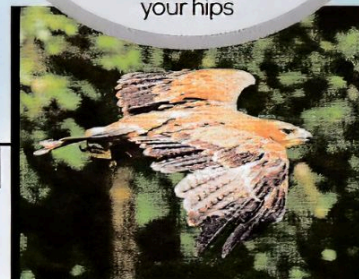
Find the right shutter speed for every situation!

SHUTTER SPEED	TYPICALLY USED FOR...
1/4000 sec	Freezing extremely fast movement
1/2000 sec	Freezing birds in flight
1/1000 sec	Freezing motorcycles, cars and other fast vehicles
1/500 sec	Freezing mountain bikes, runners and athletes
1/250 sec	Freezing slow-moving animals or people walking
1/125 sec	Panning motorcycles, cars and other fast vehicles
1/60 sec	Panning mountain bikes close to the camera
1/30 sec	Panning fast-moving cyclists at a distance
1/15 sec	Panning runners, kids or moving animals
1/8 sec	Blurring fast-flowing water close to the camera
1/4 sec	Blurring people walking
1/2 sec	Blurring slow-moving water
1 sec or slower	'Milky' water effects

Learn the lingo: Panning

Lets you add motion blur while keeping your main subject sharp.

Track the subject with your camera, pivoting from your hips



HOW TO ADJUST SHUTTER SPEED

Use Shutter Priority mode

Select S or Tv on your camera's top dial or menu, then adjust shutter speed with the relevant dial (check your manual). You can go down to around 30 secs for traffic trails.

Set the right ISO

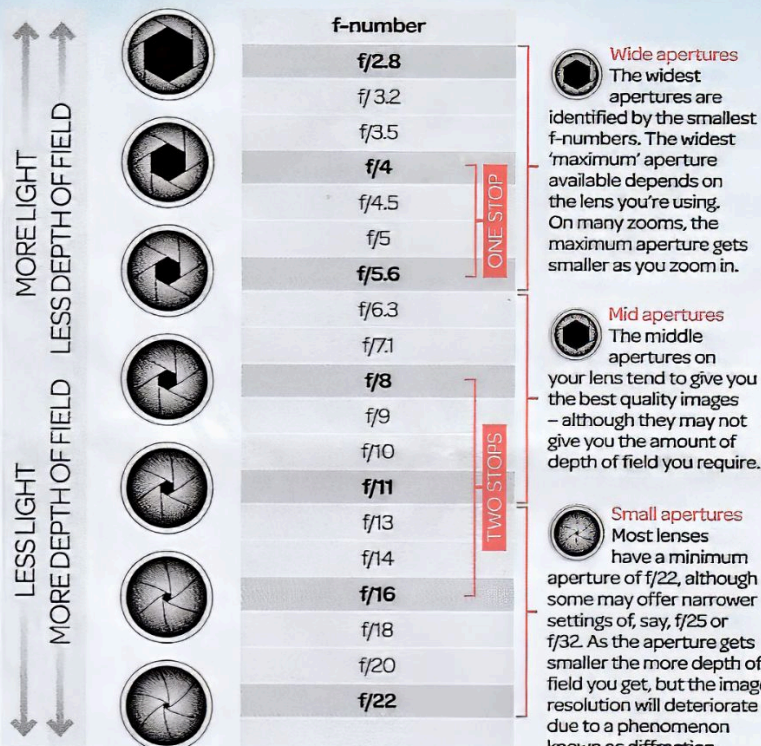
To access slower shutter speeds, use the lowest ISO setting (usually ISO100). If you need a fast shutter speed, you may need a higher ISO, such as ISO400 or above.

A NEW
SERIES
TO COLLECT

Digital CHEAT SHEET Camera

APERTURE MADE EASY

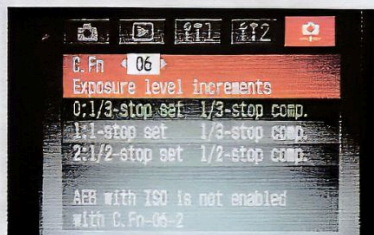
Your at-a-glance guide to aperture settings, what they mean, and just why they're so important



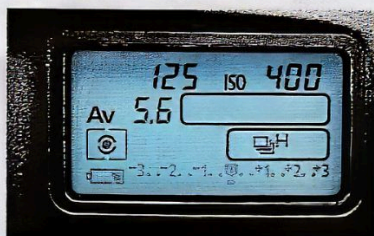
HOW TO... ADJUST THE WIDTH OF THE APERTURE



1 Select A/Av mode on the Mode dial, then rotate the main input dial to increase or decrease the aperture width. The camera will adjust the shutter speed as you do so.



2 Digital SLRs offer a choice of up to three aperture scales (found in the Custom Functions menu), with full-, half- or third-stop increments. We prefer third stops.

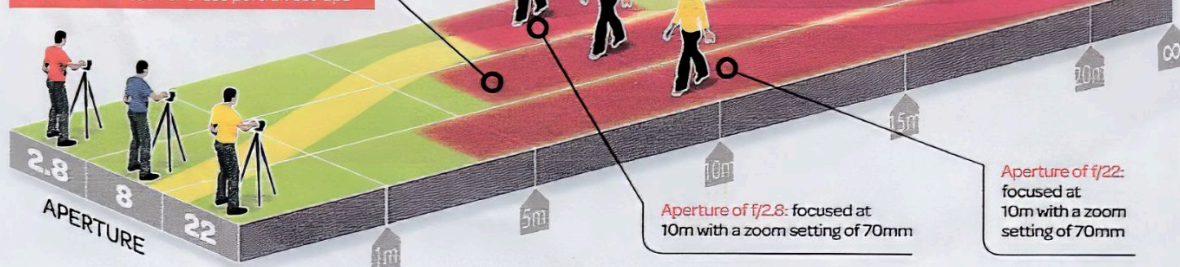


3 You can keep track of the aperture in the viewfinder, on the rear LCD, and on high-end SLRs, the small top-plate LCD. We like the clarity of the top screen and viewfinder.

HOW APERTURE AFFECTS WHAT WILL APPEAR SHARP

Changing the aperture: The wider the aperture you use (eg, f/2.8), the less depth of field you will get. This isn't always a disadvantage, as it allows you to throw the background out of focus.

Red areas show how much of the scene would be in focus for each of these portrait set-ups



Digital CHEAT SHEET Camera

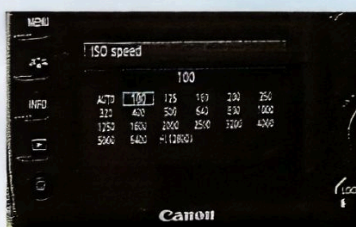
GET STUNNING LANDSCAPES

Follow this checklist to get superb shots every time



1 SET QUALITY TO RAW+JPEG

Set your camera to shoot in raw and JPEG, if available. If you get the exposure spot-on in camera, a JPEG is fine, but if you need to tweak it in Photoshop a raw file is more forgiving. It also contains more tonal and colour information, especially in wide areas of colour, such as skies.



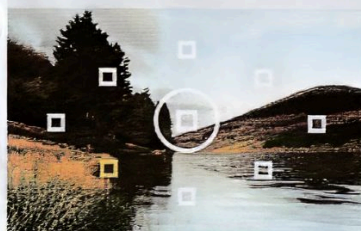
2 USE ISO100/200

Set your camera to the lowest ISO setting available in the ISO menu (ie, without having to select the Extended ISO option). For most cameras, this will be ISO100, but it may be ISO200. Low ISOs are essential for ensuring rich, noise-free landscapes.



3 SHOOT AT F/16 IN A/AV

The smaller the aperture (the higher the f-number), the greater the depth of field (see overleaf). That said, avoid going any smaller than f/16, as very small apertures can lead to slightly soft shots. To set it, select Aperture Priority (A/Av) mode, and dial in the aperture.



6 FOCUS A THIRD IN

Focus a third of the way into the scene to maximise depth of field. If one of your focus points sits over the edge you want to focus on, use it to autofocus. If not, select the nearest point, autofocus using that point, and then switch your lens to manual to lock the focus.



4 USE A STURDY TRIPOD

Once your camera's all set up, pop it on a tripod. Extend the thickest parts of the legs first and make sure the feet are firmly placed. Set Mirror Lock-up to reduce the risk of 'mirror slap' shaking the camera; and lastly, attach a remote shutter release (or set the self-timer).



7 TAKE A TEST SHOT

Take a test shot and then check the histogram graph. The graph should be roughly in the middle for 'midtone' scenes, over to the left for dark scenes, and over to the right for brighter scenes. In all cases it's important that the graph isn't cut off or clipped at either end.

Landscape checklist

- Set quality to raw+JPEG
- Use ISO100/200
- Shoot at f/16 in A/Av mode
- Use a sturdy tripod
- Activate Mirror Lock-up
- Use a remote release
- Compose off-centre
- Look for leading lines
- Include foreground interest
- Focus a third into the frame
- Evaluate the shot's histogram
- Apply Exposure Compensation if needed



5 COMPOSE OFF-CENTRE

Some shots work with the subject in the middle of the frame, but usually you'll get a more balanced shot if the subject is off-centre. When composing images, place key elements on 'thirds' in the frame. Also look for leading lines and foreground objects to add depth.



8 ADJUST THE EXPOSURE

If you think you need to 'shift' the histogram left or right, press and hold the +/- button and use the dial to adjust the Exposure Compensation. Set it to -1 to shift it left (ie, darken the exposure) or +1 to shift it right (ie, lighten it). Take another test shot and check it again.

PHOTOGRAPHY CHEAT SHEET

a guide to help you shoot manual

ISO

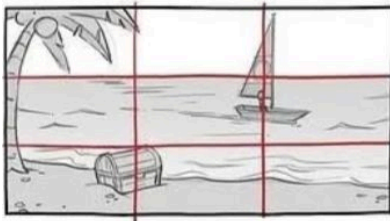
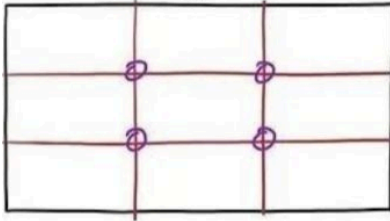


EXPOSURE

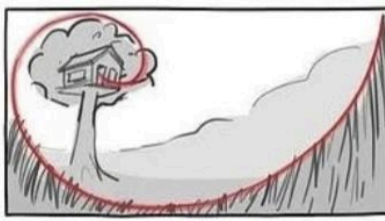
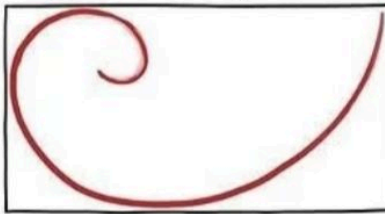


Composition examples

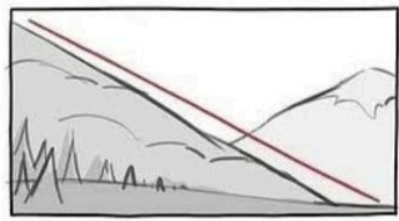
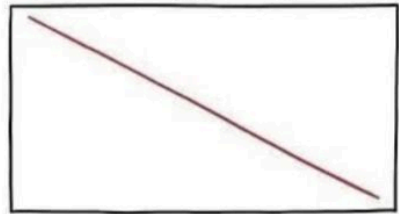
Rule of thirds



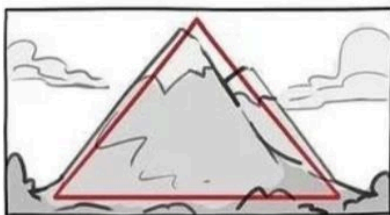
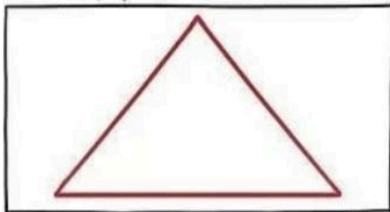
golden spiral



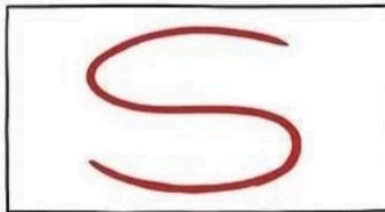
diagonal



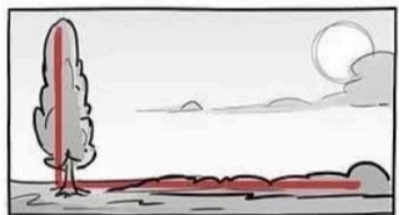
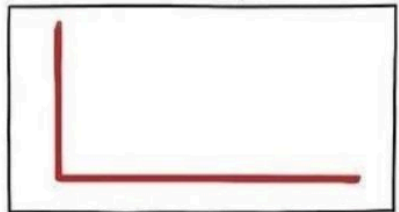
pyramid



S-curve

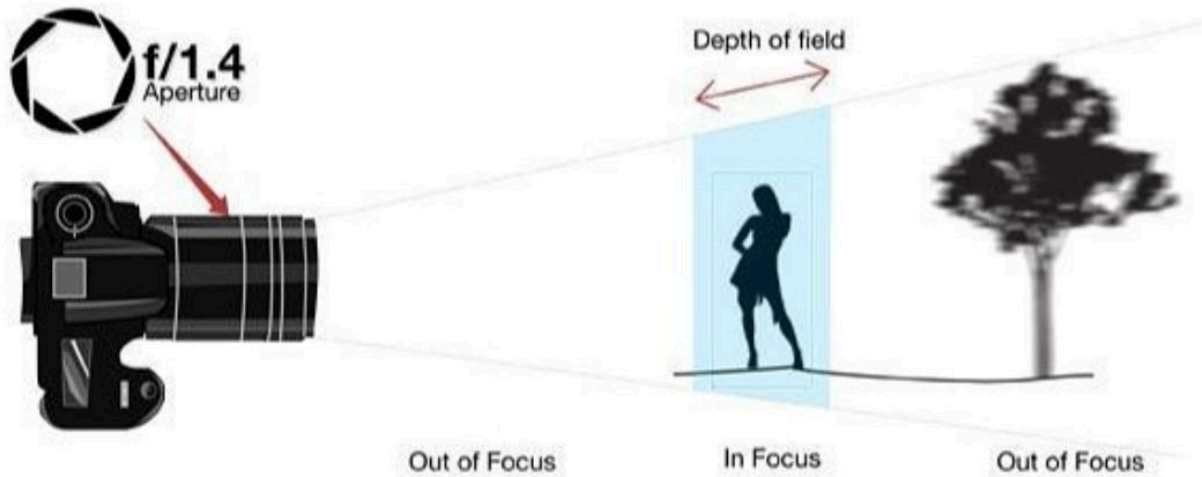


L-shape

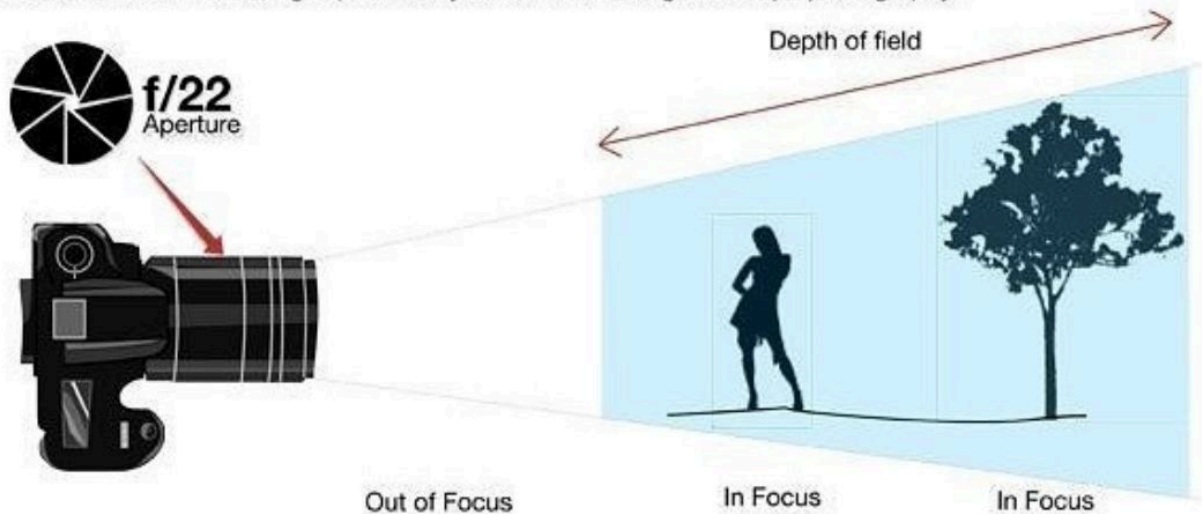


DEPTH OF FIELD

This image illustrates what happens when you shoot with an aperture value of F 4 as you can see the person is in focus while the tree is out of focus, this is called a shallow depth of field. This is great if you want to draw the viewer's attention to the important subject of the composition, and is often used in portrait photography.



If you were to increase the depth of field to F22 both the person and the tree would be in focus. This is a great technique if you want the viewer to pay attention to both the foreground and background at the same time. This setting is particularly useful when doing landscape photography.





LEGS

Legs should be shoulder-length apart to create balance. If you need to lean in, move one leg forward and bend the knees slightly.

ELBOWS IN

Tuck your elbows in, resting your arms on your sides. This gives you a sturdy support.



KNEELING

Bring one leg up and rest your elbow on the knee. This basically creates a tripod-like shape.



EYEBROW TOUCH

Rest the viewfinder against your eyebrow to create more support.

HANDS

Use your right hand to grip the camera body and your index finger to press the shutter release. Cup the lens with your left hand, to create more support and stabilization.



PORTRAIT

Turn the camera so the shutter release is at the top. Cradle the bottom of the camera with your left hand.

BREATHING

Breathe out when taking a picture. Holding your breath in, creates a subtle shaking body motion.



LEAN IN

Use a wall, flat surface or even another person's shoulder to create support. This is helpful when using a slow shutter speed and a tripod is not available.

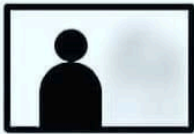
f/1.4

Very Large
Aperture



Very Small
Depth of Field

Almost Nothing
In Focus



Brightest

f/2.8

Large
Aperture



Small
Depth of Field

Little
In Focus



Bright

f/5.6

Medium
Aperture



Medium
Depth of Field

Some
In Focus



Medium

f/11

Small
Aperture



Large
Depth of Field

Much
In Focus



Dark

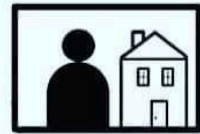
f/22

Very Small
Aperture



Very Large
Depth of Field

Almost All
In Focus



35MM



50MM



85MM



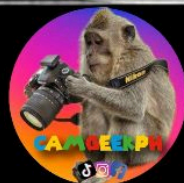
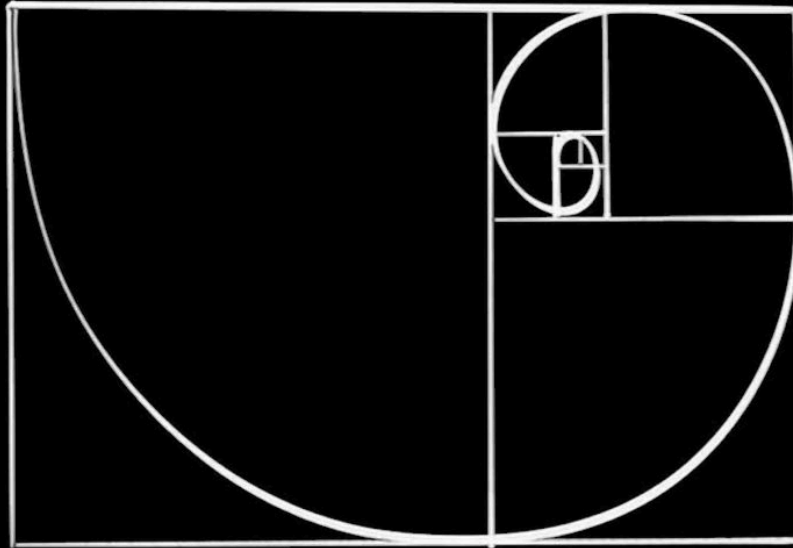
120MM

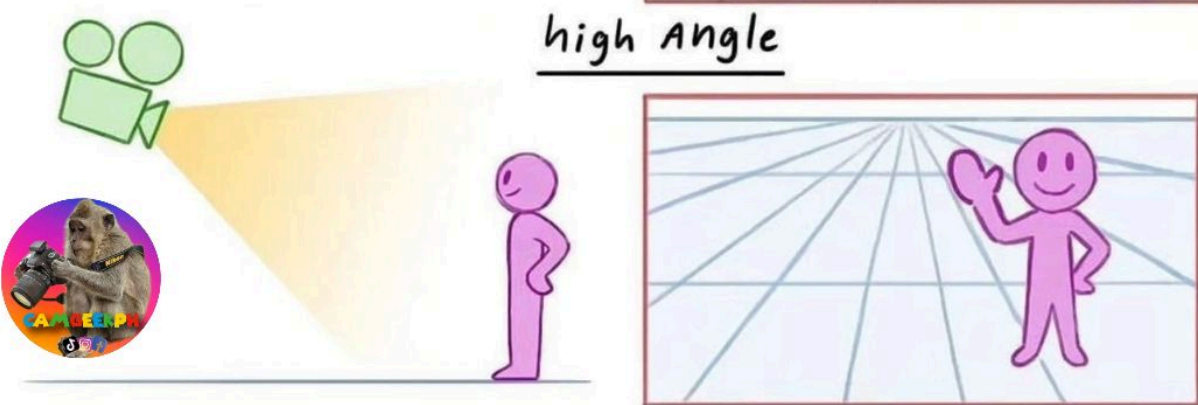
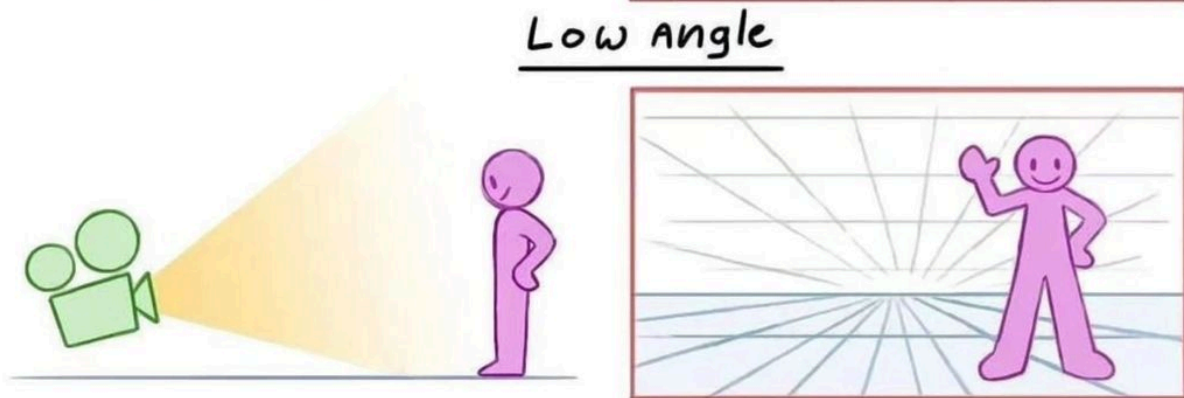
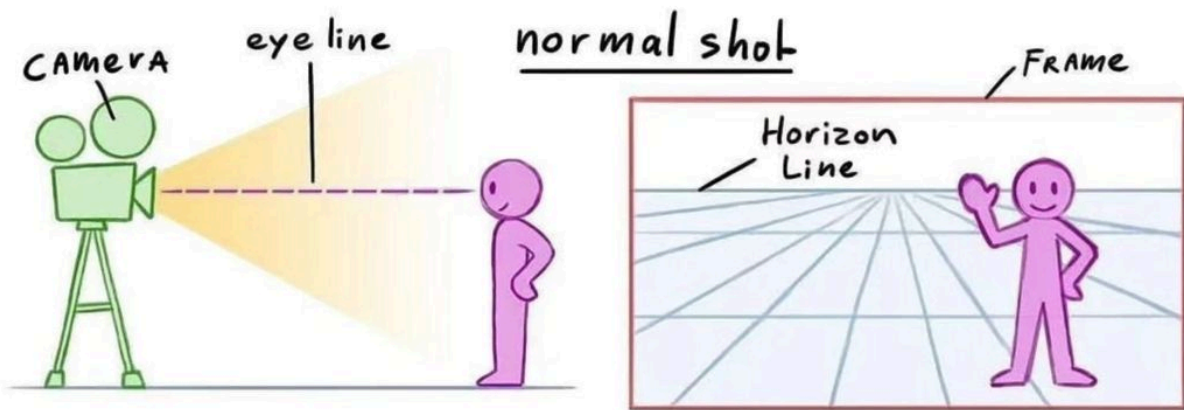


I'VE FORGOTTEN
THE CAMERA.

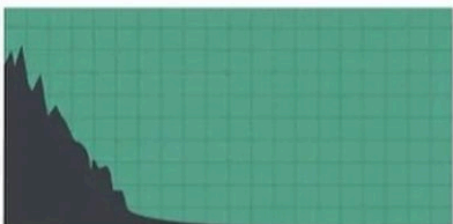


GOLDEN RATIO



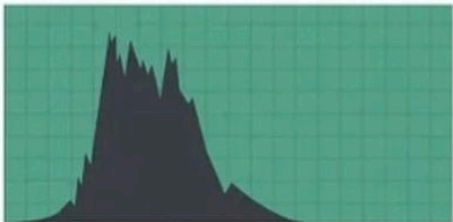


UNDEREXPOSED



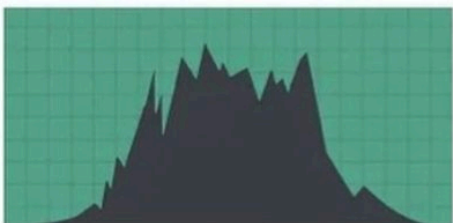
- The histogram is pushed to the left, clipping the shadows and dark tones of the image.
- If you try to recover the shadows in post-processing, you'll find color and luminance noise.
- The best way to correct this is to increase the exposure opening the aperture, using a slower shutter speed, or increasing the ISO.

EXPOSED TO THE LEFT



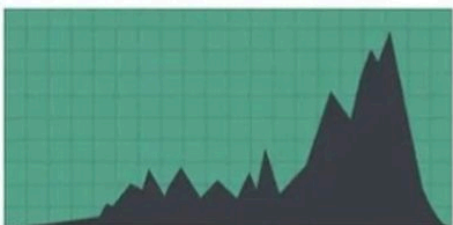
- The histogram is tilted towards the left side, but without crushing the blacks.
- It's the most common histogram in night photography, and you need to be careful raising the exposure/shadows in post-processing since you could still find digital noise.
- If you don't have a high-end camera sensor, it's recommended to use a more neutral exposure to maximize the detail in your images.

NEUTRAL EXPOSURE



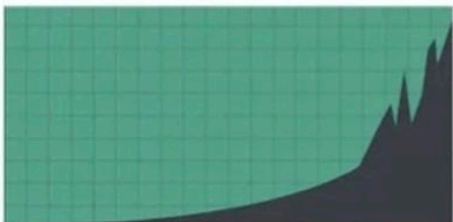
- The histogram falls under the midtones of the image.
- It's the best way to make sure that you are capturing all the information in the highlights and shadows.
- It might look too bright in your screen, but it can be easily adjusted in post-processing.

EXPOSED TO THE RIGHT



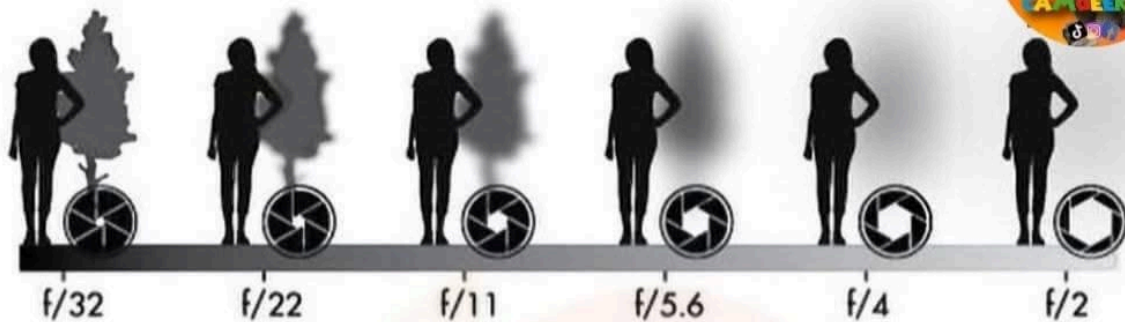
- The histogram is tilted towards the right side, but without blowing out the highlights.
- It's a very popular technique to avoid digital noise in your images.
- You need to be very careful since it's very easy to clip the highlights if you overexpose the photo further to the right.

OVEREXPOSED



- The histogram is pushed to the right, burning out the brightest tones of the image.
- If you try to recover the highlights in post-processing, you'll find white areas with unrecoverable information.
- The best way to correct this is to decrease the exposure closing the aperture, using a faster shutter speed, or decreasing the ISO.

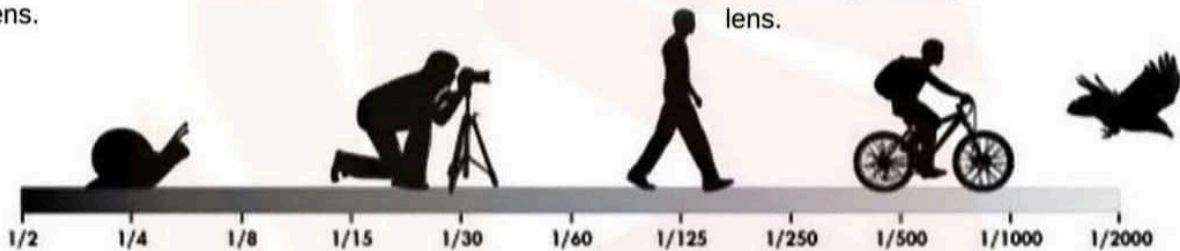
PHOTOGRAPHER CHEAT SHEET



APERTURE

Small apertures are perfect for achieving a greater depth of field, allowing more of the scene to appear in focus, and for reducing the amount of light entering the lens.

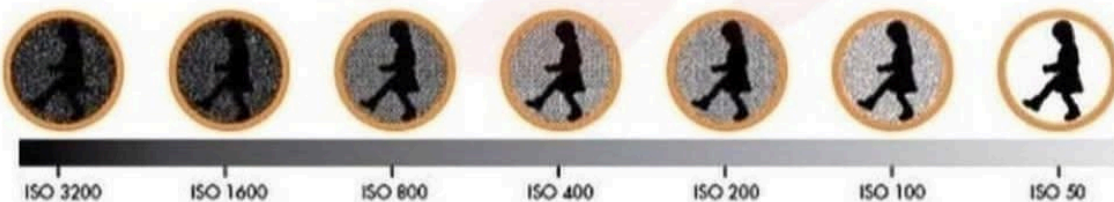
Wide apertures are excellent for creating a shallow depth of field, where the subject stands out against a blurred background, and for allowing more light to enter the lens.



SHUTTER SPEED

Slower shutter speeds work well in low light, such as at night or with slow-moving subjects.

Fast shutter speeds are ideal for bright conditions like sunny days and capturing fast/action photography.



ISO

High ISO settings increase light sensitivity, making deal for low-light or nighttime conditions but often result in grainier, noisier images.

Low ISO is less light-sensitive, ideal for bright conditions, and delivers higher-quality images

CALCULATING ISO BY THE INTENSITY OF THE LIGHT SOURCE



ISO 100

Full sun and no shade



ISO 200

Shade, overcast day, or
inside near a window



ISO 400

Deep shade or heavily
overcast day



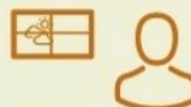
ISO 640-800

Early, or late, hours of
the day: sunrise or sunset



ISO 800

Bright interiors



ISO 1000

Mid-level lighting condition,
indoors or outdoors



ISO 1250

Low-light level interiors,
or post-sunset



ISO 1600

Extremely
low light

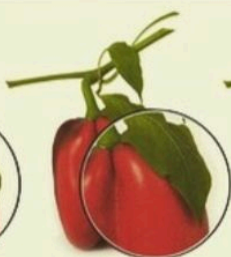
This cheat-sheet is for natural light,
not electronic flash.

The noise factor of the ISO settings
can vary widely depending on the
camera model.

GRAIN / NOISE FACTOR



ISO 200



ISO 640



ISO 1000



ISO 1250



ISO 1600

Landscapes/
nature



24mm
f2.8



14-24mm
f2.8



24-70mm
f2.8



70-200mm
f2.8

Portraits



50mm
f1.8



85mm
f1.8



135mm
f2



24-70mm
f2.8



70-200mm
f2.8

Weddings



50mm
f1.8



105mm
f2.8



24-70mm
f2.8



70-200mm
f2.8

Sports



14-24mm
f2.8



24-70mm
f2.8



70-200mm
f2.8



300mm
f2.8



300mm
f4

Macro



105mm
f2.8



200mm
f4

Nature & Landscape



24mm
f2.8



14-24mm
f2.8



24-70mm
f2.8



70-200mm
f2.8

Portrait



50mm
f1.8



85mm
f1.8



135mm
f2



24-70mm
f2.8



70-200mm
f2.8

Weddings & Events



50mm
f1.8



105mm
f2.8

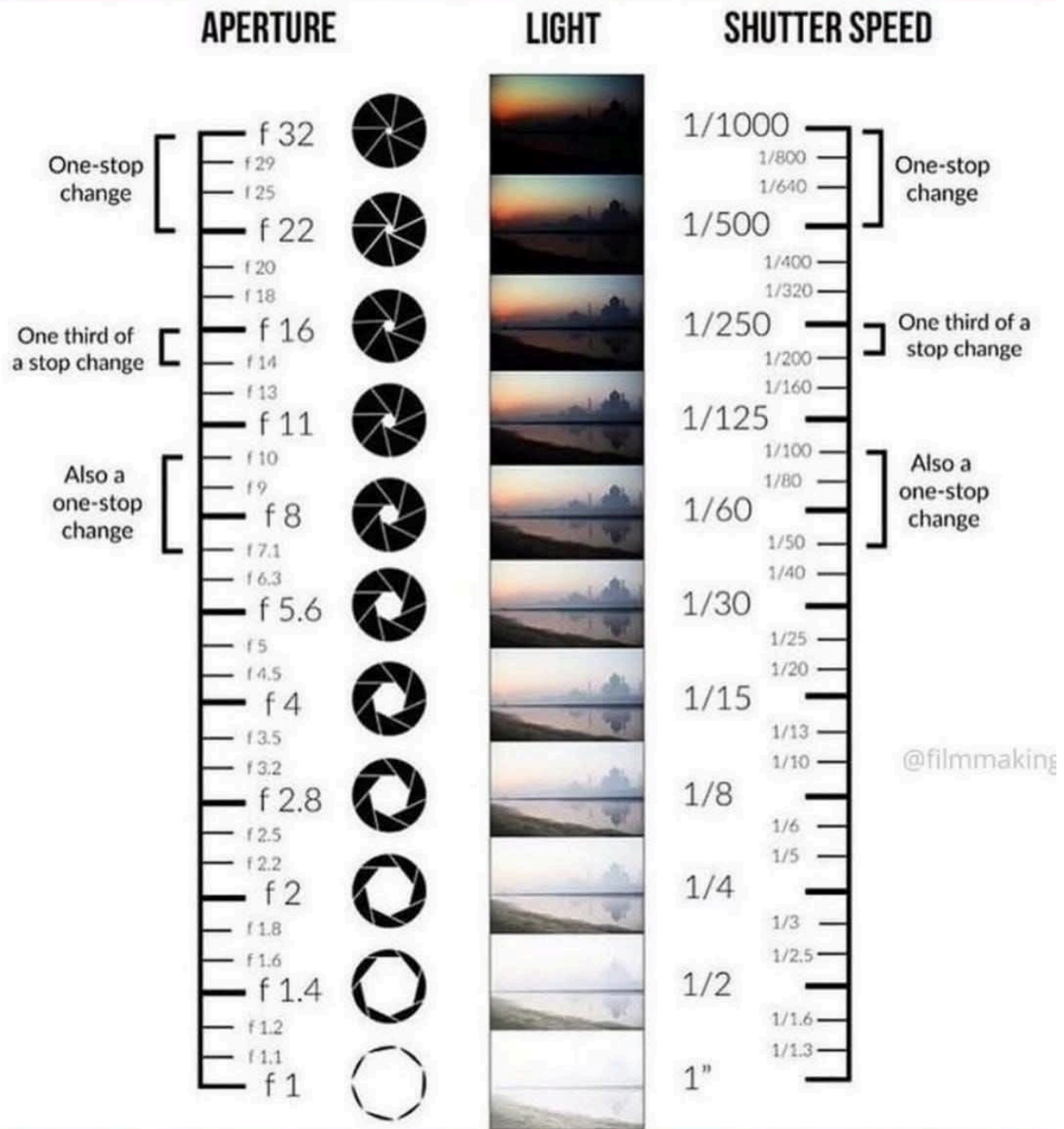


24-70mm
f2.8



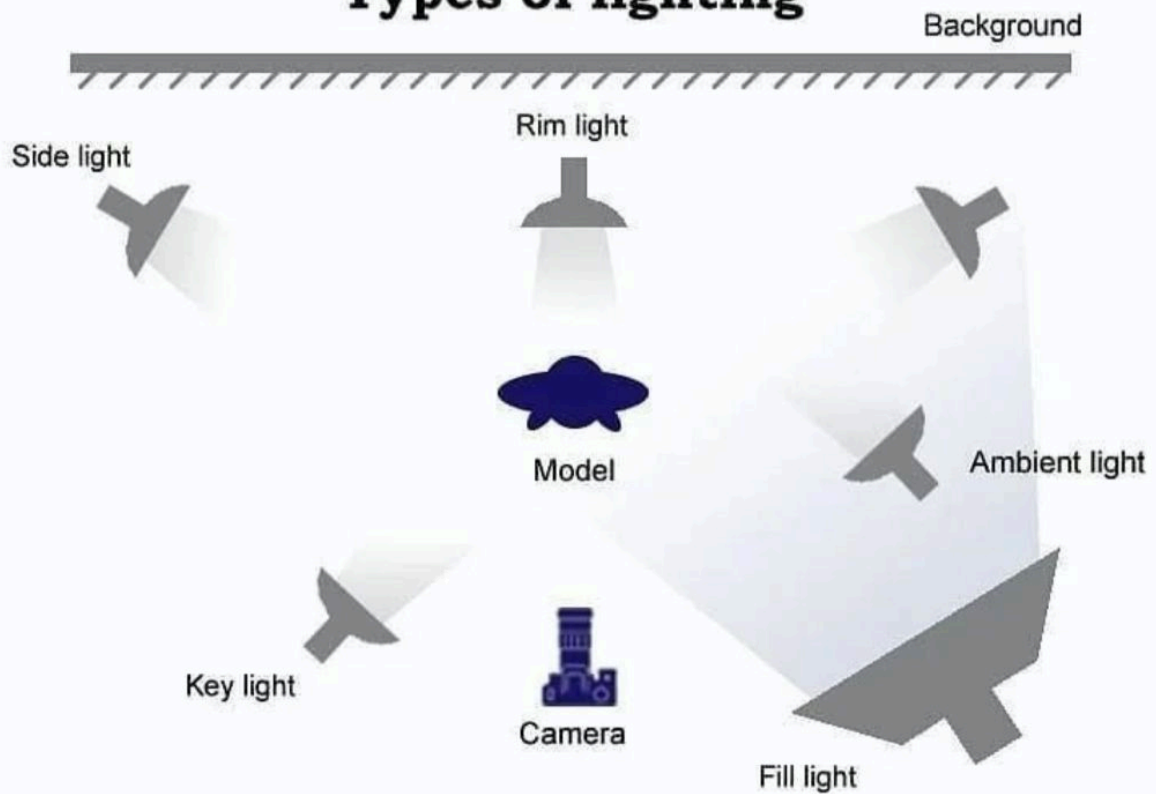
70-200mm
f2.8

UNDERSTANDING EXPOSURE CHANGES



PHOTOGRAPHY TIPS

Types of lighting



KAFFEE
MEDIA



Long Exposure Photography Cheat-sheet.



F2.0



F5.6



F9



F9



F22

TRY TO KEEP **APERTURE** IN BETWEEN F/9 - F/16
TO GET MORE THINGS IN FOCUS



KEEP **SHUTTER SPEED**
BETWEEN 5-30 SECONDS.

BULB MODE CAN BE USED
WHEN SHOOTING LIGHT
TRAILS



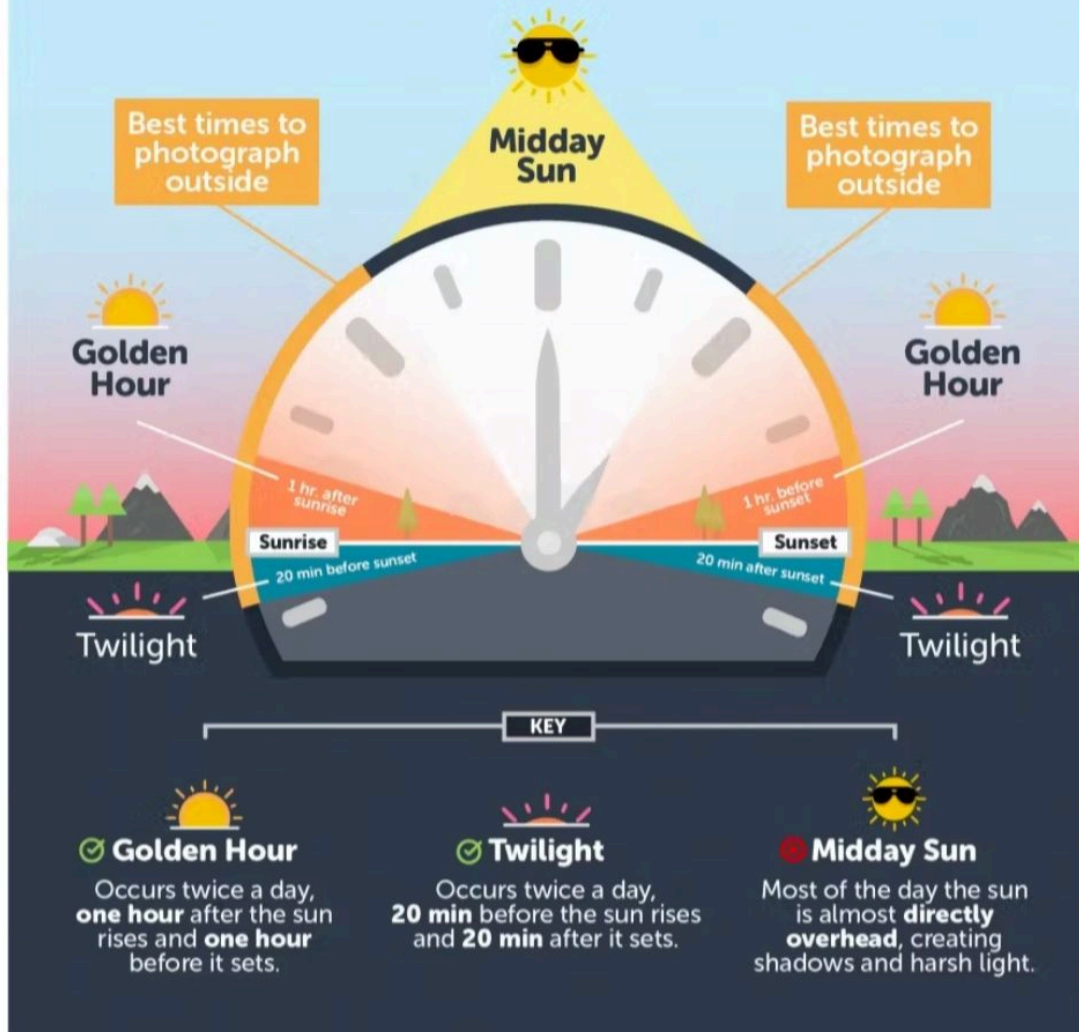
NOTE : ALWAYS USE A **TRIPOD**,
USE A **ND FILTER** FOR DAY TIME,
USE **SELF TIMER** FOR SHARPER AND SHAKE
FREE IMAGES



KEEP **ISO** IN BETWEEN
50-200 FOR NOISE FREE
IMAGES

Natural Light Photography

Quick Tips for Following the Sun



Aperture Setting

For Group Shots

as a general rule, your aperture number should be slightly higher than the amount of people in the shot in order to keep everyone in focus with people being as in line with each other as possible



○ 2.8



○ 4



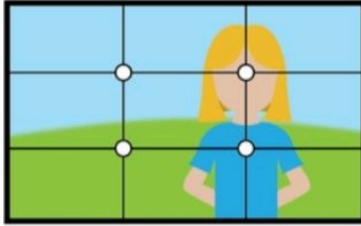
○ 5.6



○ 7.1



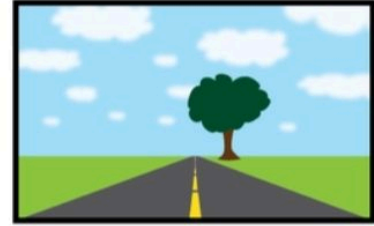
○ 8



RULE OF THIRDS

The photo is divided by nine boxes. The subject is in one of the intersecting lines, or the circles.

PHOTO BASICS



LEADING LINES

The road in this picture serves as a guide that lead your eyes to the subject of the photo.



DEPTH OF FIELD

This is when the subject of the photo is completely in focus and the background is blurry. This can be controlled by aperture.



SHUTTER SPEED & APERTURE

These figures are on your SLR camera screen. The higher the number (1/400), the faster the shutter speed. You are able to shoot faster subjects. As your aperture number gets lower (F2.8), more light is allowed into the lens. More light allows you to shoot in lower light situations.



FRAMING

This is when there are objects around the subject that frame the subject, making your eyes more drawn to it.



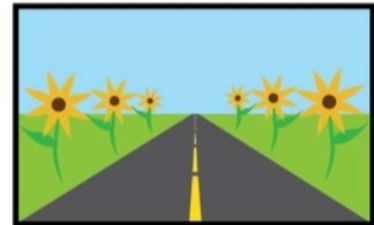
BALANCE

Placing your main subject off-centre, as with the rule of thirds, creates a more interesting photo. You should balance the "weight" of your subject by including another object of lesser importance to fill the space.



VIEW POINT

Before shooting your subject, think about where you will shoot it from. The viewpoint has a massive impact on the composition of a photo, and it can greatly affect the message that the shot conveys.



SYMMETRY

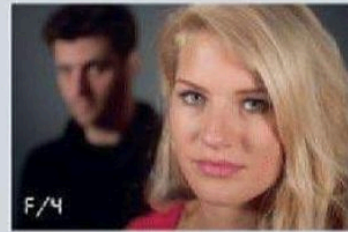
This is when the photo is equally balanced or has a pattern, creating symmetry within the photo. This can be very eye-catching, particularly in situations where they are not expected.

WHICH APERTURE IS BEST FOR PORTRAITS?

Decide if you want your subject to be separated from, or part of their surroundings.

Blurred backgrounds

Use wide aperture such as
f4 or **f2.8**



Best of both worlds

Use aperture of **f8** or
something close to that

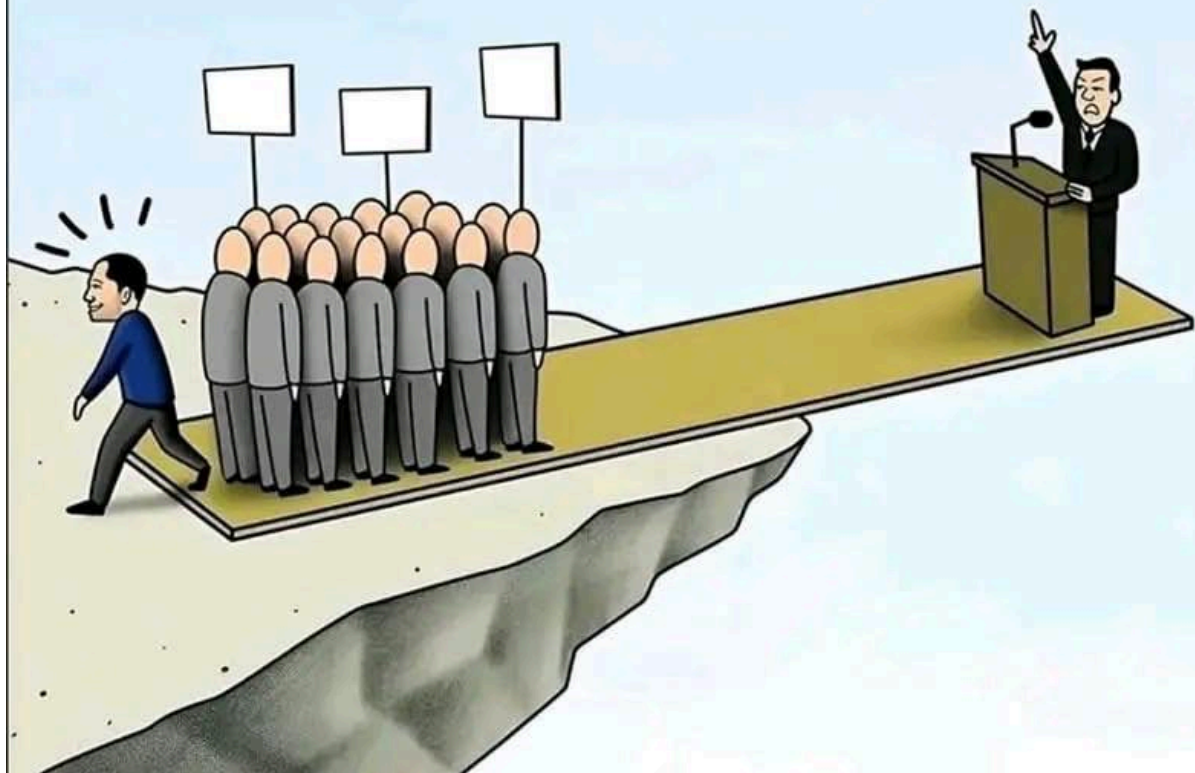


Everything sharp

Use a very small aperture
such as **f22**



The people don't know their true power.





Take Sharper Photos



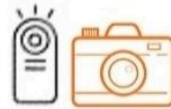
Use faster shutter speed



Keep your lens clean



Remove any unnecessary filters



Shoot remotely



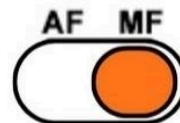
Use smaller aperture (f8-f11)



Handheld? turn image stabilization on



Set Image Quality to RAW



Try manual focus



Use a tripod or at least hug a tree



Use software sharpening



THE EXPOSURE TRIANGLE

