

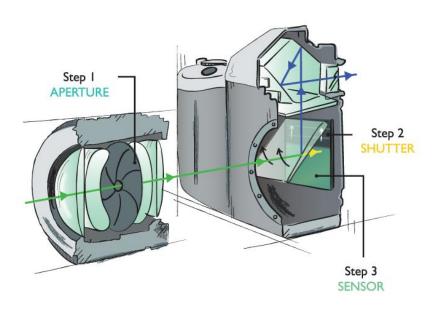
Cameras are complicated. It took me a ton of trial and error before I started to capture some pretty spectacular images.

This cheatsheet is the **reference guide** I wish I had when I first started and I truly hope it will help you in your journey to become a better photographer.

EXPOSURE

Learning how exposure works will help you to take control of your camera and take better photos. There are three elements that, **combined**, create an exposure:

- Aperture: the diameter of the hole inside the lens
- Shutter speed: filters how much light is allowed to go into the camera
- ⊙ ISO: refers to the sensitivity of the sensor

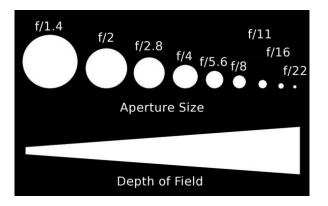




STEP 1 APERTURE

The aperture is similar to the pupil of your eye: the **wider** the aperture, the **more light** is allowed in and vice versa.

Exposure will be much easier if you can memorize the f/stop scale.



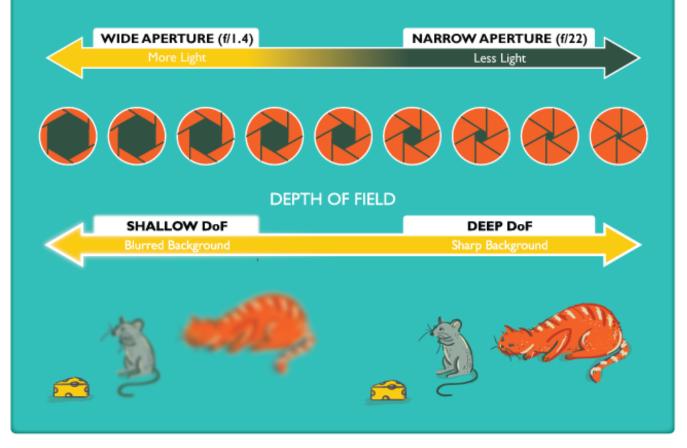
As the aperture widens, the f/number gets lower and more light is allowed into the camera. This is great for low light but be aware that it's going to make the **depth of field** very shallow – not ideal when taking landscapes.

★ Learn more about aperture <u>here</u>.





The aperture refers to the diameter of the hole inside the lens. A change in aperture alters the size of this hole, allowing more or less light into the camera which also has an affect on the depth of field of your final image.





STEP 2 SHUTTER SPEED

Once the light has passed through the aperture of the lens, it reaches the shutter. Now you need to decide how much of that light you're going to allow into the camera.

- A very small fraction of a second (for example 1/250) will prevent motion blue.
- \odot An even smaller fraction (for example 1/4000) for sports photography
- ⊙ A really slow shutter speed (30 seconds) is perfect for night photography

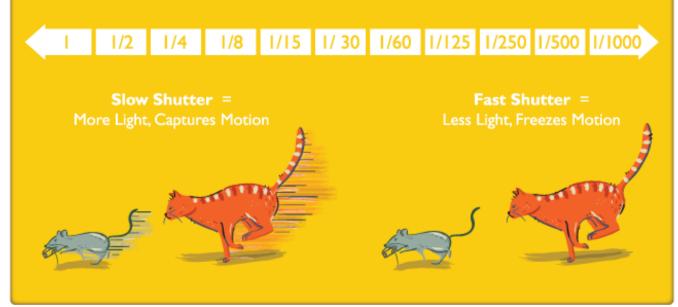
It all depends on what you're shooting and how much light you have available to you.

Learn more about shutter speed here.





The mirror flips up and the shutter opens, recording the light present onto the sensor (or film). The speed at which this happens determines the exposure length as well as the amount of motion blur.





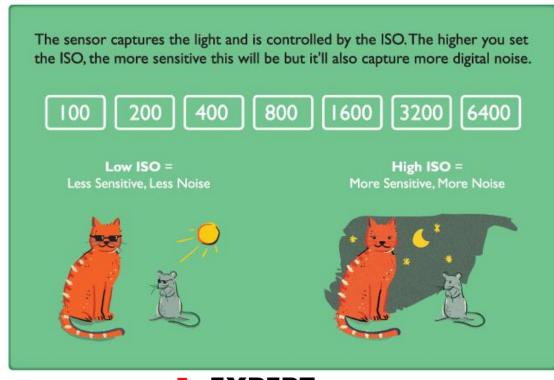
STEP 3 ISO

Once the light has passed through the aperture and been filtered by the shutter speed, it reaches the sensor, where we decide upon the ISO.

As you turn the ISO number up, you increase the exposure but, at the same time, the image quality decreases; there will be more digital noise or "grain".

So you have to decide upon your priorities in terms of exposure vs grain.

Learn more about ISO <u>here</u>.





Learning how to take great photos is about more than just understanding how your camera works.

- Josh Dunlop

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UNDERSTANDING YOUR CAMERA

1 METERING MODES

Metering is the process that the camera goes through when it 'looks' at a scene and works out **what the exposure should be**.

The photo below was taken on spot metering mode but, if you were to take the same photo using evaluative mode, you would end up with a completely different exposure.

Learn more about metering modes here.



EXPERT PHOTOGRAPHY

UNDERSTANDING YOUR CAMERA

2 HISTOGRAMS

The histogram shows you a **mathematic review of an exposure** after the photo has been taken.

It essentially tells you how evenly exposed a photo is.

 ISO 200
 f/5.6
 1/400
 50mm

Learn more about histograms here.



UNDERSTANDING YOUR CAMERA

3 SHOOTING MODES

There's also a lot of misconceptions about which mode to use under which conditions, as well as a lot of bias towards not using manual mode.

- ⊙ Full-auto
- Program
- ⊙ Aperture priority
- Shutter speed priority
- Manual

When you understand what exactly each mode does, the one that will be suitable for your situation becomes a lot clearer.

Learn more about shooting modes <u>here</u>.



UNDERSTANDING YOUR CAMERA

4 DEPTH OF FIELD

When you're shooting in low light, you invariably have to widen your aperture to allow enough light into the lens but this has one rather major side effect: shallow depth of field.

There are many situations, such as landscapes, where you'll want to be using a narrower aperture so that the whole scene remains in focus.

Learn more about depth of field <u>here</u>.



Shallow DoF f/1.8



Medium DoF f/5.6



Deep DoF f/22



UNDERSTANDING YOUR CAMERA

5 WHITE BALANCE

The white balance **changes the color cast of the entire photo** and is responsible for the overall warmth. It can determine whether your photo appears blue or orange: from **cold** to **warm**.

Learn more about white balance here.





UNDERSTANDING YOUR CAMERA

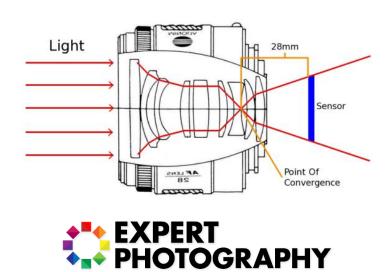
6 FOCAL LENGTH

The focal length of your lens essentially determines how '**zoomed in**' your photos are; the higher the number, the more zoomed your lens will be.

The focal length affects more than just the 'zoom' – it influences the **perspective** too.

It is often misunderstood that the focal length is measured from the front or rear of the lens when, in reality, it's the distance between the point of convergence in your lens to the sensor or film in your camera.

Learn more about focal length <u>here</u>.

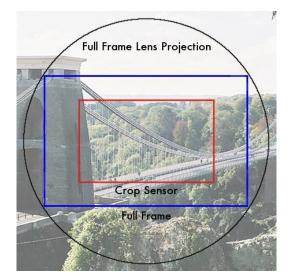


UNDERSTANDING YOUR CAMERA

Z CROP FACTOR

A lot of you may not realize but, unless you spend about \$2000 on your camera, you're more than likely to be shooting on a crop sensor. This means that your **sensor** is much **smaller** than professional SLR cameras which essentially **crops the image**.

Learn more about crop factor here.





UNDERSTANDING YOUR CAMERA

8 POLARIZING FILTERS

Polarizing filters **only allow light into the lens from a certain direction**. This results in the **removal of glare and reflections** from non-metallic objects such as water and glass, as well as haze from the sky, making for more naturally saturated colors.

Not only does this look great but it **cannot be replicated in post production**, hence it's so important to understand.

Learn more about polarizing filters <u>here</u>.





UNDERSTANDING YOUR CAMERA

9 SHARP IMAGES

I created a **tutorial** which will walk you through the **10 step process** of taking professionally sharp photos. It covers everything from choosing the right aperture and shutter speed, to shooting in RAW.

It's pretty easy to make just a few **small mistakes** which will result in less sharp images, that's why we cover all ten, in order of importance.

Read my tutorial about taking sharp images <u>here</u>.



EXPERT PHOTOGRAPHY

UNDERSTANDING YOUR CAMERA

10 THE NIFTY FIFTY

For those of you who don't know, when I talk about the nifty fifty, I'm referring to the **50mm f/1.8 prime lens** that can be picked up very cheap for most digital SLRs.

It's a great introduction to buying better quality lenses and an excellent way of getting to grips with aperture.

I recommend this lens as the **first upgrade for every beginner photographer** to make. It's **easy to use** and, for the **price**, will yield some **excellent results**.

My review & guide on the nifty fifty is here.





COMPOSITION

It's important to understand exposure but, if you can't get to grips with basic composition, you'll struggle to take really good photos.

At the same time, you should never blindly follow the 'rules'; use your new knowledge to shape your photos into something much more pleasing to the eye.

Five compositional rules will be covered into this cheatsheet:

- Rule of thirds
- \odot Visual weight
- ⊙ Triangles
- Eye-lines
- Balance

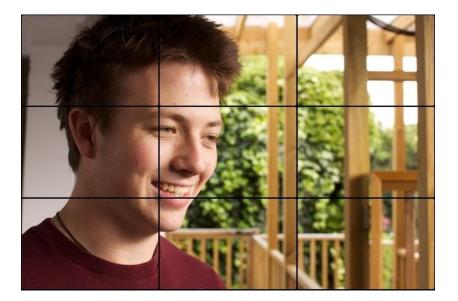


RULE **1** RULE OF THIRDS

This is probably the first compositional rule that any photographer comes across and that's for a very good reason: it's simple and it works.

The basic premise is that you divide your camera's frame into thirds and plant key objects on these lines; the composition will work better.

Photos that are correctly composed using the rule of thirds create depth and interest, adding an exciting balance between subject(s) and background.



Learn more about the rule of thirds here.



RULE 2 VISUAL WEIGHT

Visual weight is all about what we're drawn to when we look at a photo.

When you understand visual weight, you'll start to understand how people look at photos and how you can position certain elements in a frame to direct the viewers attention to where you want them to look.

Learn more about visual weight <u>here</u>.





RULE 3 TRIANGLES

Triangles are in almost everything we see in one way or another, it's just a case of distinguishing and knowing what to do with them.

Triangles make great compositional tools as they're easy to make and manipulate, and are remarkably common. They are also a great way of combining different compositional techniques, such as lines and paths, to create a more interesting part of a photograph.



Learn more about triangles <u>here</u>.



RULE 4 EYE-LINES

If you take photos of people, you're taking photos with eye lines. It's important to understand the effect that eye lines have on how we view a photo.

Eye-lines have the ability to focus our attention on a particular part of the photo, as well as producing tension and other photographic elements.

Learn more about eye-lines here.





RULE 5 BALANCE

Balance in a photo affects how we feel when we look at it; it determines whether the photo is pleasing and harmonious or uncomfortable and unresolved to look at.

Learn more about balance <u>here</u>.





Want to take your photography skills to the **next level**? I highly recommend you take a look at my <u>"Photography</u> <u>Unlocked" eBook</u>.

THE QUICK-START PHOTOGRAPHY CHEATSHEET

