



# Camera Settings



Photography  
AWQ30I



# 1. Exposure

- Refers to the amount of light recorded on the film or sensor.
- You want the right amount of exposure to capture the image you see (or are trying to create).
- Exposure typically referred to as: Underexposed or Overexposed.



# 1. Exposure



# Your Task








- Test out the various settings using the simulator as we go through each



[Camera Simulator](#)

# Scene Modes



<i>Symbol</i>	<i>Exposure Mode</i>	<i>Description</i>
	Auto	Completely automatic photography; the camera analyzes the scene and tries to choose settings that produce the best results.
	Auto Flash Off	Same as Full Auto, but with flash disabled.
	Portrait	Designed to produce softly focused backgrounds for flattering portraits.
	Landscape	Designed to keep both near and distant subjects in sharp focus.
	Sports	Selects faster shutter speed to capture moving subjects without blur.
	Close Up	Produces softly focused backgrounds especially suitable for close-ups of flowers and other nature subjects.
	Night Portrait	Same as Portrait, but with flash mode set to Slow-Sync, resulting in a slower shutter speed to produce softer lighting and brighter backgrounds.

# Shooting Modes - Canon

**Canon** ↓

**Full Auto**  
The idiot 'green square' mode – sets all the camera settings for you automatically.

**Creative Auto**  
Only found on most recent EOS SLRs. Lets you tweak aperture and exposure compensation in a jargon-free way.

**Metered manual**  
You set both aperture and shutter speed, but the camera still gives a meter reading (see p97).

**Av** **Aperture priority**  
You set the aperture, and the camera then sets the shutter speed for you.

**Tv** **Shutter priority (time value)**  
You set the shutter speed, and the camera then sets the aperture for you.

**P** **Program shift**  
The camera pairs aperture and shutter speed; but you can tweak them – see below.

**Movie mode**  
Only found on the mode dial of some newer EOS models that feature HD video recording.

**Portrait mode**  
Sets a wide aperture to blur backgrounds, but overrides other settings, see p96.

**Landscape mode**  
Sets aperture to maximise depth of field, but overrides other settings, see p96.

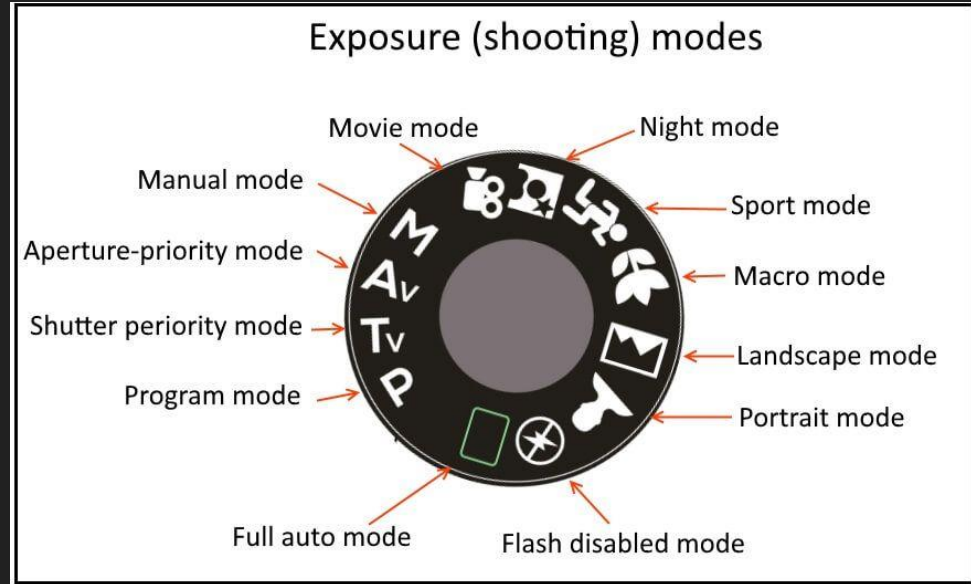
**Close-up mode**  
Sets a wide aperture to blur backgrounds, but overrides other settings, see p96.

**Sports mode**  
Sets a fast shutter speed to freeze action, but controls other settings too, see p96.

**Night portrait mode**  
Combines flash with a slow shutter speed, but fixes other settings, see p96.

**Flash off mode**  
Fully automatic mode that ensures flash does not fire – see full details on p96.

**Automatic depth of field**  
Tweaks aperture and focus to ensure key parts of picture are sharp. See p96.

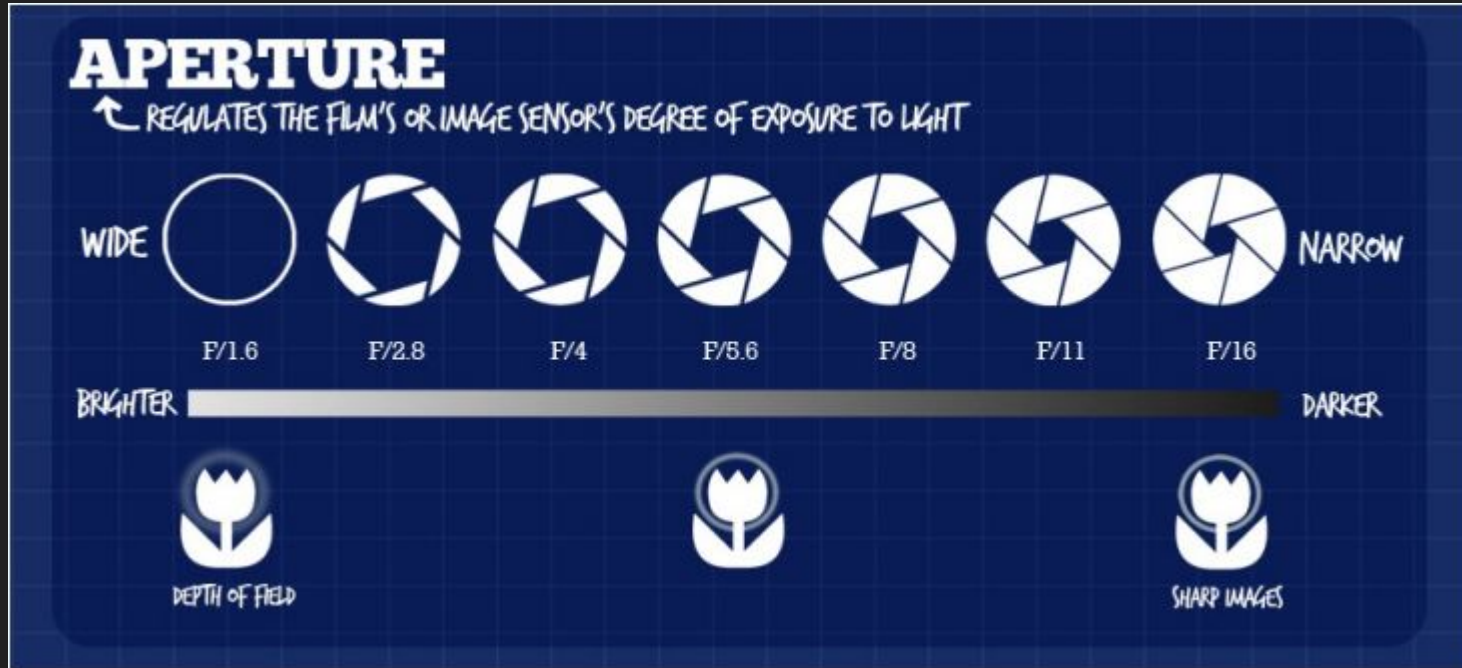


## 2. Aperture/ f-stop

- Aperture refers to the opening in the lens that light shines through when a photo is taken.
- A higher aperture/ f-stop (f-16) indicates a smaller or narrow aperture and less light getting through.
- A smaller aperture/ f-stop (f1.6) indicates a larger or wider aperture and more light is getting through.



## 2. Aperture/ f-stop





### 3. Shutter Speed

- Shutter speed refers to how long the shutter remains open to allow light through.
- Shutter speeds are given in fractions of a second:  $1/50$ ,  $1/500$ ,  $1/1000$
- The entire time the shutter is open, light is hitting/ exposing the sensor/ film, and if an object (or the camera itself) moves during that time, the movement will show up as a blur.
- You can reduce blur by using a tripod to hold the camera steady when you shoot.

### 3. Shutter Speed



## 4. ISO

- The ISO number is a measure of light sensitivity.
- Represented as 100 400, 800, etc...
- Low ISO numbers (100) indicate the least amount of light sensitivity, while high ISO numbers (800+) are faster, more sensitive settings.
- One of the most important things a photographer can learn is how to get the best quality shot in a given lighting condition with the lowest possible ISO setting.

## 4. ISO



## 5. Flash



- Flash can be an important light source when shooting in low-light areas or unevenly lit situations.
- However, with an inexpensive point-and-shoot camera, you've probably already come to realize the limitations of the flash as a primary light source.

## 6. Depth of Field

- You've probably seen beautiful photos of flowers and people which are close to the camera and in crisp focus, while the background is soft and fuzzy.
- Depth of field is primarily affected by the camera's aperture setting.
- f 1.6 creates a shallow depth of field (blurry background).
- f 16 creates an extensive depth of field (crisp background).



# 7. Focus

- Focus is a function of a camera's lens and the current aperture setting. An object that is in focus is crisp and clear, while one that is out of focus will appear blurry.
- We have many ways to manipulate and adjust focus. Some prefer to manually focus a shot using the focus ring.
- Autofocus is very handy, but has its limits if you're shooting several subjects at various distances from the camera, or subject that are moving toward or away from the camera.



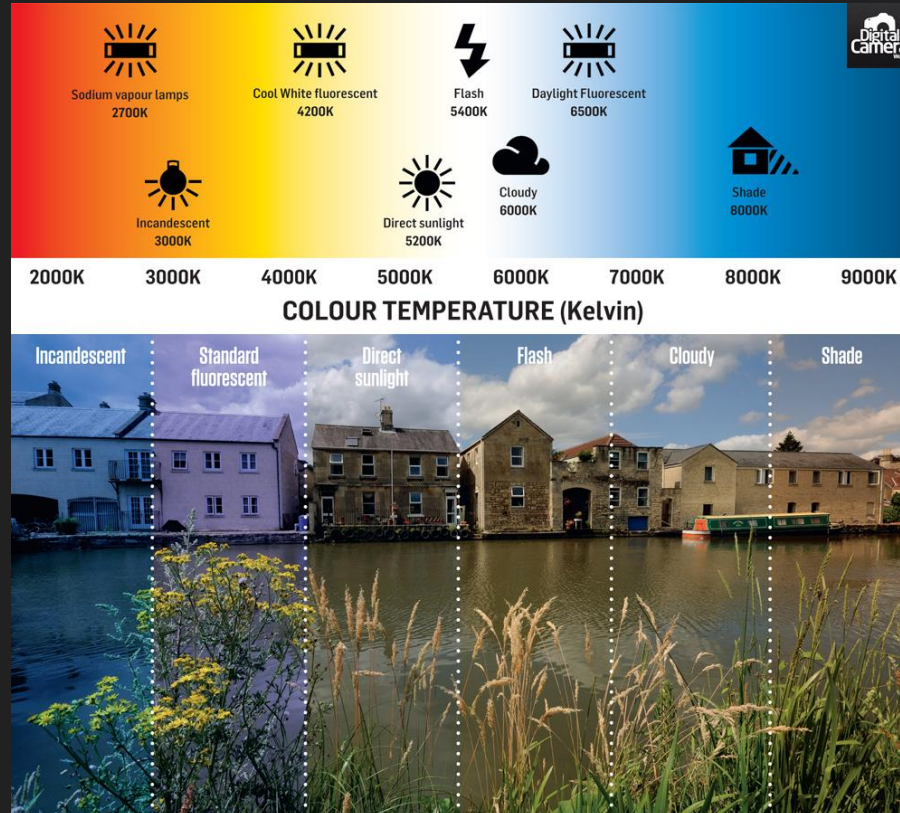
## 8. Lens

- The lens is one of the most important parts of the camera.
- Photography is all about capturing light, and all the light you capture passes through the lens.
- Common lenses are: Fish Eye, Wide Angle, Telephoto, Prime.

## 9. White Balance








- When you look at a white object, your brain interprets the lighting around you and interprets that the object is white.
- Example - if the object is under a orange light, it will really look orangish, but your brain compensates for the colour differences, so you will see it as white.
- The camera does no such compensating unless you force it to do so, so if a white object is under an orangish light, the camera will record orangish pixels.
- This can be corrected by setting your camera's white balance settings or in post-production.

# 9. White Balance



# 10. Scene Modes



<i>Symbol</i>	<i>Exposure Mode</i>	<i>Description</i>
	Auto	Completely automatic photography; the camera analyzes the scene and tries to choose settings that produce the best results.
	Auto Flash Off	Same as Full Auto, but with flash disabled.
	Portrait	Designed to produce softly focused backgrounds for flattering portraits.
	Landscape	Designed to keep both near and distant subjects in sharp focus.
	Sports	Selects faster shutter speed to capture moving subjects without blur.
	Close Up	Produces softly focused backgrounds especially suitable for close-ups of flowers and other nature subjects.
	Night Portrait	Same as Portrait, but with flash mode set to Slow-Sync, resulting in a slower shutter speed to produce softer lighting and brighter backgrounds.

# 10. Shooting Modes - Canon

**Canon** ↓

**Full Auto**  
The idiot 'green square' mode – sets all the camera settings for you automatically.

**Creative Auto**  
Only found on most recent EOS SLRs. Lets you tweak aperture and exposure compensation in a jargon-free way.

**Metered manual**  
You set both aperture and shutter speed, but the camera still gives a meter reading (see p97).

**Aperture priority**  
You set the aperture, and the camera then sets the shutter speed for you.

**Shutter priority (time value)**  
You set the shutter speed, and the camera then sets the aperture for you.

**Program shift**  
The camera pairs aperture and shutter speed; but you can tweak them – see below.

**Movie mode**  
Only found on the mode dial of some newer EOS models that feature HD video recording.

**Portrait mode**  
Sets a wide aperture to blur backgrounds, but overrides other settings, see p96.

**Landscape mode**  
Sets aperture to maximise depth of field, but overrides other settings, see p96.

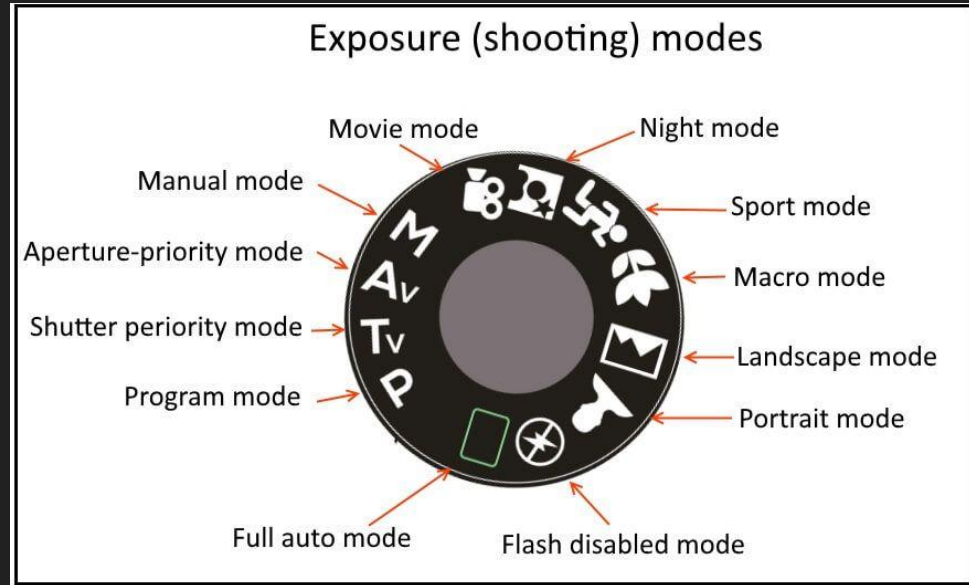
**Close-up mode**  
Sets a wide aperture to blur backgrounds, but overrides other settings, see p96.

**Sports mode**  
Sets a fast shutter speed to freeze action, but controls other settings too, see p96.

**Night portrait mode**  
Combines flash with a slow shutter speed, but fixes other settings, see p96.

**Flash off mode**  
Fully automatic mode that ensures flash does not fire – see full details on p96.

**Automatic depth of field**  
Tweaks aperture and focus to ensure key parts of picture are sharp. See p96.



# 11. Post-Production

- Using software such as Photoshop, Lightroom, Photopea, Pixlr or in-camera filters to edit/ alter and touch up your photos.
- Post-production also includes uploading methods, file management and organization on your computer or in your cloud based storage systems like Google Drive.

