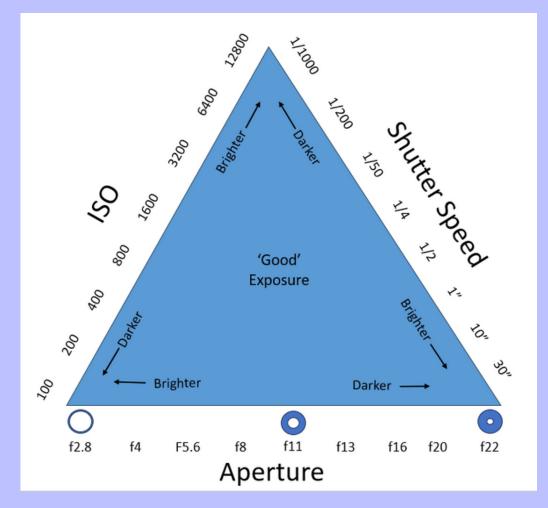
UNDERSTANDING EXPOSURE

Gary +

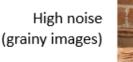
PHOTOGRAPH



- ISO, Aperture & Shutter Speed can all be adjusted to manage exposure (the amount of light captured by your camera)
- ISO is the sensitivity of the camera sensor, from low (ISO 100) to high (ISO 6400 or more)
- Aperture is the size of the hole to let light in, from a small hole (f22) to a large hole (f.2.8)
- Shutter Speed is how long the aperture is left open for, from 1/2000th of a second to 30 seconds or more
- As well as managing exposure, ISO, Aperture and Shutter Speed all have a secondary effect on your photo (see below)

ISO							
100	200	400	800	1600	3200	6400	12800
Darker							Brighter

Low noise (clean images)

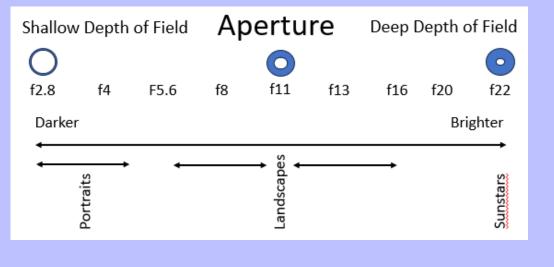


- The secondary effect of ISO is electronic noise
- Low ISO is preferable as it gives low noise, 'clean' images
- High ISO allows you to take photos in low light, but the trade-off is high noise which leads to grainy images

Freeze r	notion	Shutter Speed				Blur motion		
1/1000	1/500	1/250	1/200	1/50	1/2	1″	10″	30″
Darker							Bri	ighter
er jet 4	ts	ren	aits	held		rfalls	2	

- The secondary effect of Shutter Speed is to freeze motion (fast shutter speed) or blur motion (slow shutter speed)
- Any shutter speed slower than the handheld limit (1/50th second) needs a tripod to prevent blur from camera shake
- Slower shutter speeds in daylight may require Neutral Density filters to reduce light

Figh Spot Child Porti Iimit Nate	Flatt sea
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- The secondary effect of Aperture is Depth of Field (the amount of the scene that is in focus).
- Small apertures (f2.8) produce shallow depth of field perfect for blurring the background of portraits.
- Medium apertures (f11) are a great starting point for landscapes.
- Small aperture (f22) can produce a starburst effect on points of light