

Technical summary

- Composition
- Light
- Picture space
- Time tips
- Colour
- Exposure
- Aperture
- Shutter speeds
- Depth of field
- Scene settings

Composition

The way we organize and manage all the visual information in the viewfinder –
leap from snapshot to a photograph

- Horizontal or vertical format
- Filling the frame
 - Move closer to the subject
 - Move the subject closer to you
 - Zoom in to fill the frame
 - Crop the final picture on the computer
- Framing the picture
 - E.g. doorways, overhanging leaves
- Changing viewpoint
 - Change your camera angle. High or low viewpoints. Circle round 1st
- Symmetry
 - Symmetrical – signify solidity, stability and strength
 - Radial – key elements spread outward from the middle
 - Diagonal – leads eye from one image to another imparting energy

Composition

- Perspective
 - Change focal length, use wide angle or telephoto lenses
- Focal points
 - E.g. human figure or statue in urban scene, boat in a harbour, human activity in landscape OR pre-compose first before focal point moves in
- The rule of thirds
 - Focal points is on $1/3$ horizontally or vertically (golden mean)
 - Place off centre
- Avoid Bulls Eye
- Balance
 - Equal, e.g. 2 buildings of the same size
 - Unequal, e.g. big tree on one side, small rock/bush/person on the other

Light

- Best is natural
- Time of day
 - Before sunrise (light is clean and sharp, no dust in the atmosphere)
 - Shortly after dawn (when sun present can burn through trees and accentuate blue sky)
 - Early morning (can be good for high definition architecture)
 - Midday (sun directly overhead tricky for portraits as shadows v black, but good for graphic compositions)
 - Mid afternoon (provides combination of detail and shade, can expose for either highlights or shadows)
 - Sunset (can be focal point or turn your back on it and use the very warm light for portraits)

Light

- Weather
 - Mist can soften and subdue detail
 - Storms (some best landscape light happens during and after storms)
 - Rainbow (react quickly)
 - Fog (can give a ghostly look)
 - Wet surfaces (make lovely shiny highlights)
 - Bright sunlight (too harsh for many subjects, ideal for texture and strong shadows)
- Single light source
 - Front-light a round face from above the camera makes it look rounder
 - Front light 3.25' above head height makes face appear narrower and longer
 - Light 45 degrees from camera + 3.25' above head height – classic portrait light
 - Light wide on to face, narrows face as one side is in shadow
 - Light behind head + reflector (white card) held above and in front produces halo effect

Light

- Making the most of flash
 - Overexposure is caused by flash too close to subject
 - For close-ups reduce power of flash
 - Underexposure is caused by flash having insufficient power
 - For landscapes, concerts turn flash off, use long exposure and support camera
 - Red eye reduction, series of pre-flashes minimizes the red eye phenomenon
 - Slow synchronization, for slow shutter speeds, e.g. at night captures both subject & background
 - Fill-in, eliminates shadows on subject's face in backlight situation or for correcting colour shifts produced by artificial lighting (especially fluorescent)
 - Flash in daylight
 - Use when light levels are low
 - Light up facial features when sun is behind image

Light

- Night photography (slow shutter speed with flash)
 - Use whatever artificial lighting you can
 - streetlights, illuminated arcades, fairgrounds, floodlit buildings
 - Light reflecting surfaces, buildings, foliage, vehicles
 - Rainy night (just after a shower) use reflections in wet pavements, river or lake
 - Moving objects, e.g. cars or boats, leave light trails with slow shutter speed (exposure 1" second and f/5.6).
- Candlelight
 - Set white balance to incandescent which cools colour whilst maintaining yellow/orange glow, long exposure 1/8 sec., high ISO e.g. 1600
 - Wet white balance to daylight if strong orange colour required

Light

- Close up photographs
 - Fill the frame
 - Get close
 - Full sunlight (use piece of paper to diffuse and soften the light)
 - Don't use flash
- Don't be afraid of dull light
 - Camera sees more colours at night than you can
- Silhouettes
 - Exposure for background alone so foreground objects are recorded as very dark
 - Ensure minimal light on subject
 - Position yourself so subject obscures light source
 - Use small aperture
- Exposure
 - Overexposed looks too bright
 - Under-exposed looks too dark

Light

- Camera sensitivity (ISO settings)
 - ≤ 100 bright conditions
 - 200 slightly less bright
 - 400 overcast conditions or low light (faster shutter speed provided)
 - 800 freeze fleeting action (also use noise reduction)
 - ≥ 1600 very low light (offers v. fast shutter speeds)

Picture space

- Negative space
- Enclose main subject in frame
- Show differences in distance
- Lines curving through the image space
- Use receding lines
- Evoke wide open spaces

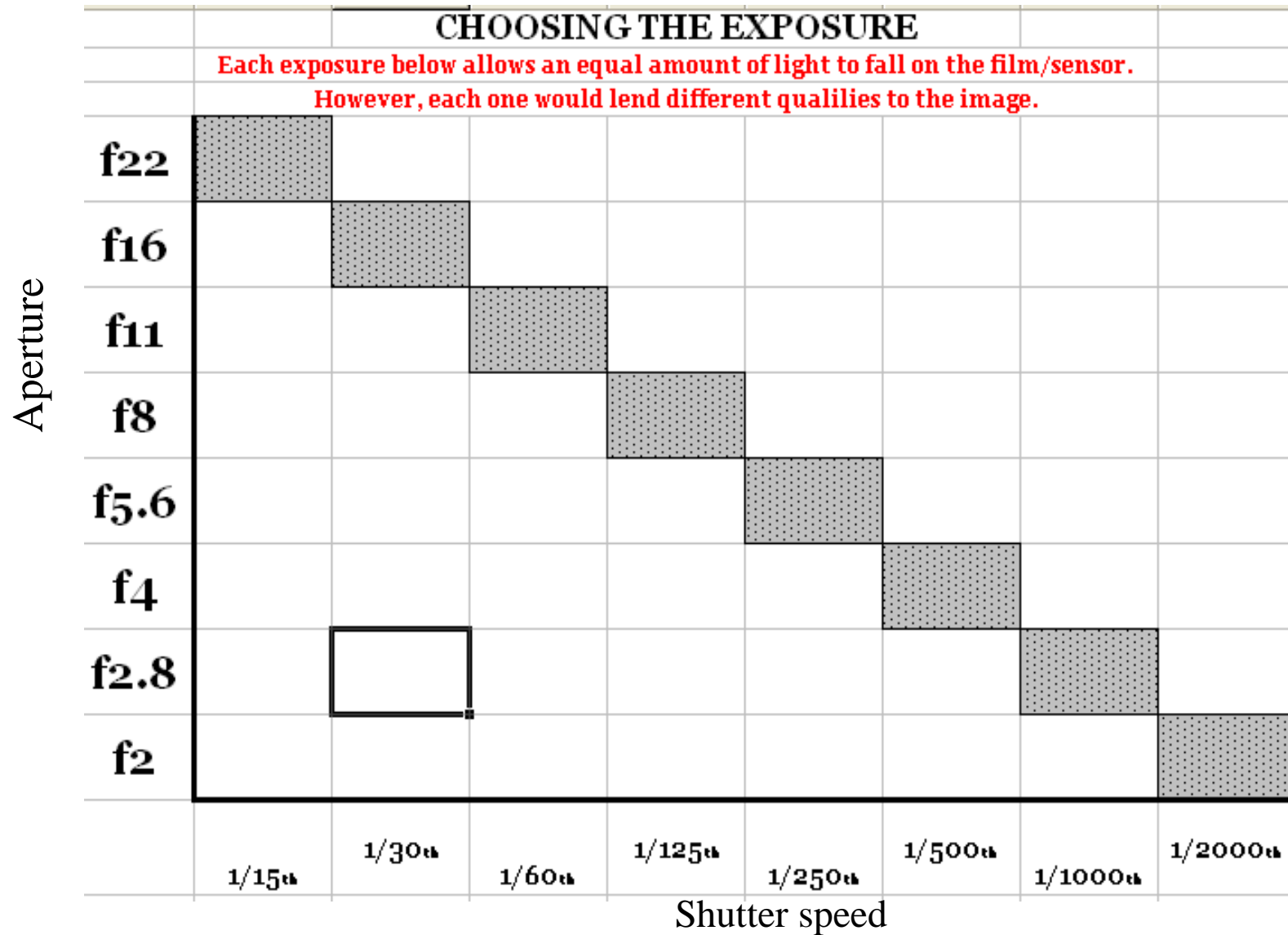
Time tips

- Best time of day outside
 - Golden hours just after sunrise and before sunset.
- Moving water,
 - waterfalls, mountain streams or lapping sides
 - Slow shutter times transforms water from frozen & static to being alive
- Photographs at night
 - Very long exposure times
- Capturing moment or event
 - Anticipate action beforehand
- Moving subjects
 - Use long shutter time
 - Snapping image causes blurred image in direction of path
 - Pan along with subject, image remains clear with blurred background
- Camera slow to respond
 - Leave camera on stand-by
 - Depress shoot button down half way

Colour

- Emotional colour
 - Blue colours calming
 - Green restful
 - Pink romantic
 - Red colours excite, demand attention
- Saturated colour
 - Colour at its most intense (rich hot colours)
- Unsaturated colour
 - Colour at its least intense (colourless)
- Colour relationships
 - Hot colours, red & orange advance in a picture
 - Cool colours, blues & greys recede
- Opposing colours
 - Creates colour tension and vitality
 - Blue and yellow
 - Red and green
 - Purple and orange

Exposure (brightness)

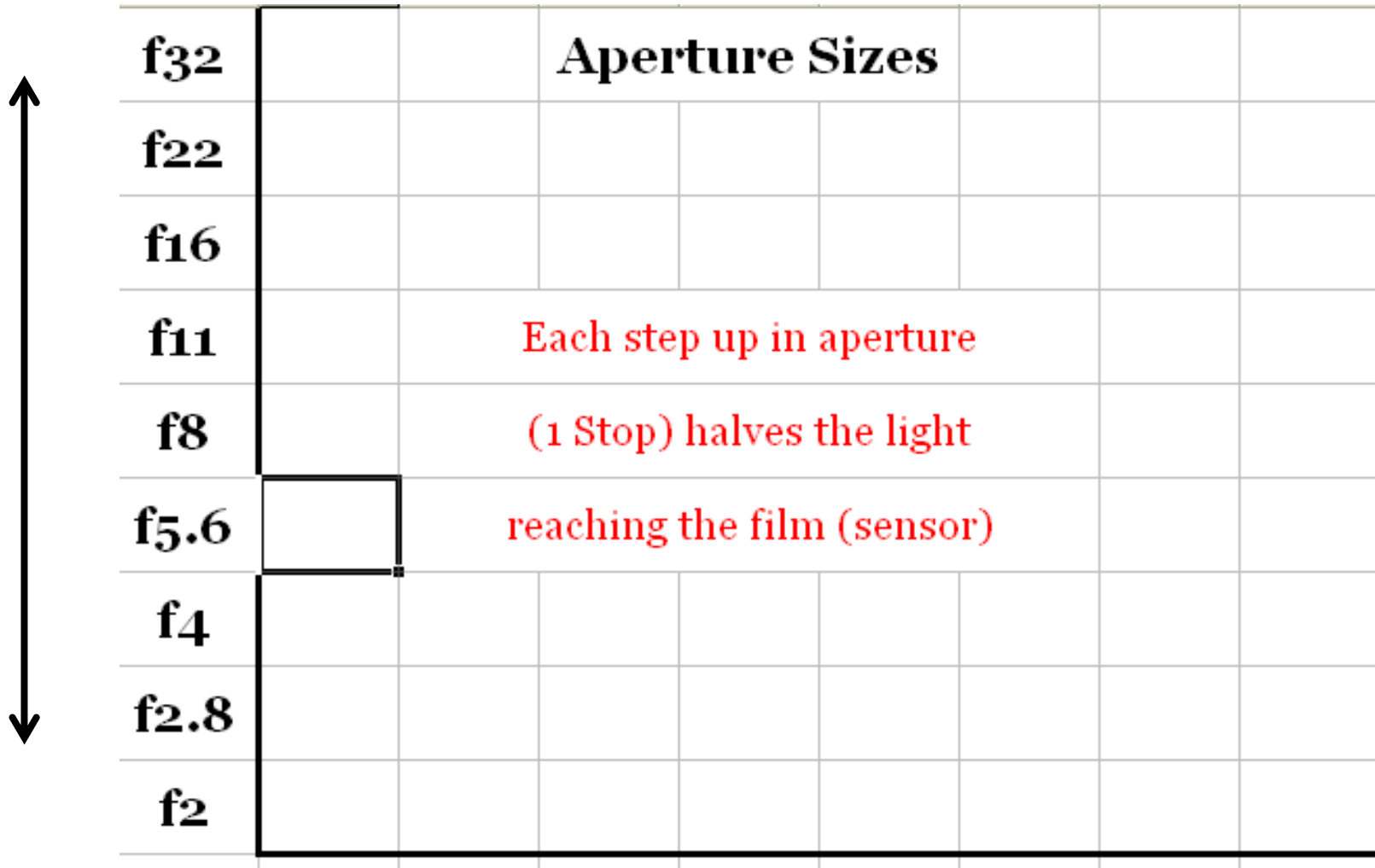


Use in bright light

Deep depth of field

Less light let in as
small aperture

Aperture sizes

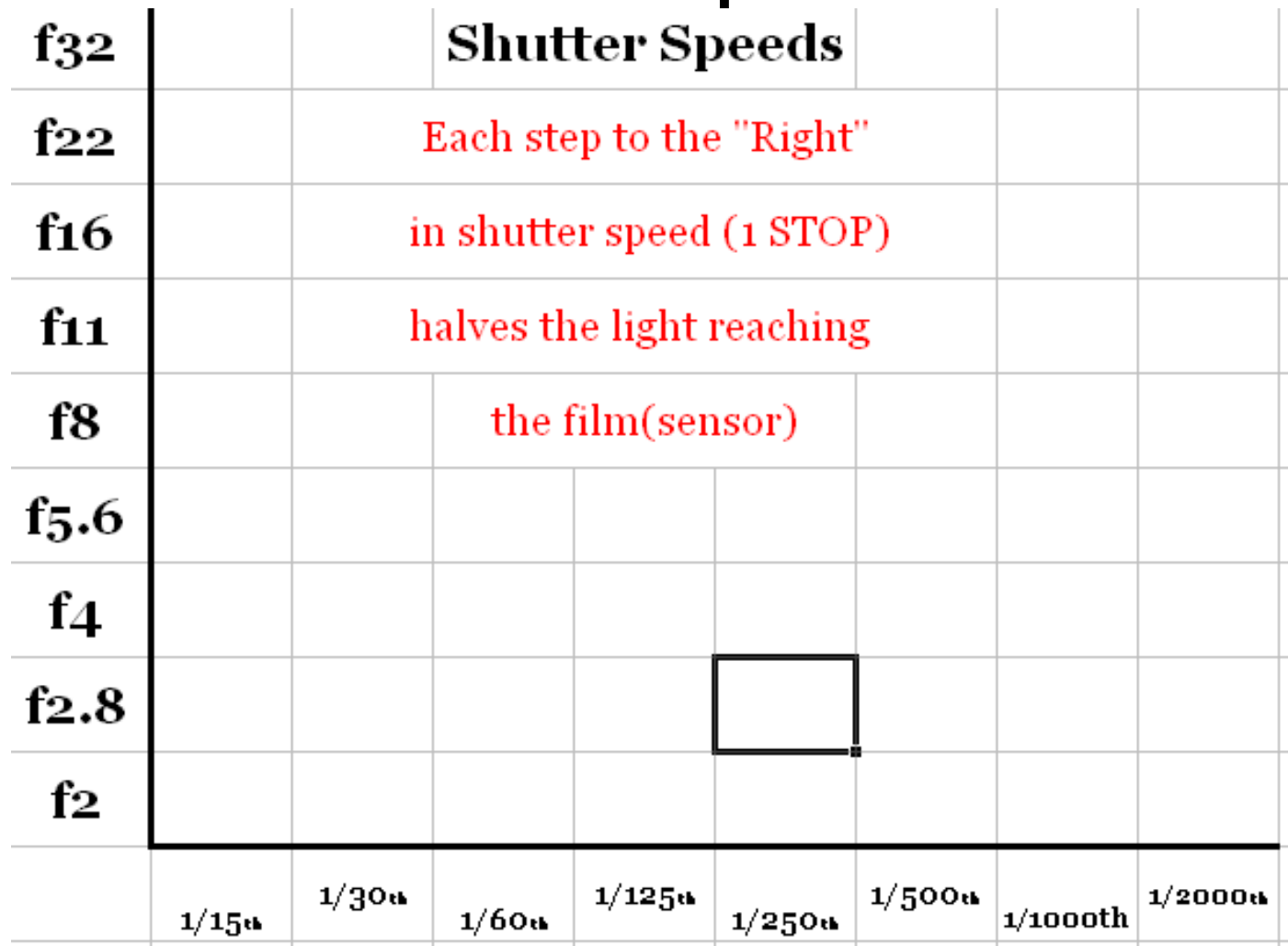


Use in low light

More light let in as
large aperture

Shallow depth of field

Shutter speeds



Use in low light

Slow shutter speed



Use in bright light

Fast shutter speed

Depth of field

- How large the focused area in a photo activity is.
- Or distance between the nearest and farthest points that appear in acceptably sharp focus.
- DOF varies with lens aperture, focal length and camera-to-subject distance
- Telephoto lens gives shallow DOF/wide aperture F2.8
 - Use in portraiture (or portrait mode) to get sharp subject & blurry background
 - Use in close up (or macro mode)
- Wide angled lens gives deep DOF
 - Use for landscapes with wide-angle zoom lens + small aperture say F8

Scene settings

A	B	C	D	E	F	G	H
Scenes	extra description	ISO	WB	Flash	Shutter speed	Aperture	Exposure level indicator
Portrait		auto	auto	auto	1/60	4.5	
Landscape	blues & greens	auto	sun*	auto	1/4	4.5	
Landscape + portrait		auto	sun*	auto	1/4	4.5	
Night scene	illuminated, slower shutter speed	100	sun*	off	1"	4.5	
Night + portrait	slower shutter speed	auto	sun*	synchronised	1"	4.5	
Children	active	auto	auto	auto	1/4	4.5	
Sport	fast moving without blurring	auto	auto	auto	1/4	4.5	
High Key	enhances bright areas	auto	auto	auto	1/4	4.5	
Low Key	enhances dark areas	auto	auto	auto	1/4	4.5	
Dis mode	reduces blur of moving object	auto	auto	auto	1/15	4.5	
Macro	close-up	auto	auto	auto	1/60	8	
Nature macro	close-up of small objects	auto	auto	auto	1/60	4.5	
Candle	warm colour produced	auto	sun*	off	1/6	4.5	+0.3
Sunset	or sunrise	auto	cloudy	off	1/6	4.5	-0.7
Fireworks	uses a slower shutter speed	100	sun*	off	4"	9	-1.0
Documents	increases contrast between letters & background	auto	auto	off	1/2.5	4.5	+0.7
Beach & Snow	snowy capped mountains, landscapes, white sand sea-scapes	auto	cloudy	auto	1/3	4.5	+0.3
Under water wide	landscapes under water	100	cloudy	Fill-in flash	1/2	4.5	-1.0
Under water macro	close-ups under water	101	cloudy	Fill-in flash	1/1.6	4.5	-0.7
*sun = outdoors on a clear day, reds in sunset or firework display colours							