

## Basic rules & formula's

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Sunny 16 & Looney 11

$$\text{shutterspeed} = \frac{1}{\text{ISO}}$$



f22



f16



f11



f8



f5.6



f4

Safe slowest shutter speed w/o a tripod or image stabilization

$$\text{shutter speed} = \frac{1}{\text{focal length}}$$

- Shoot first, crop later!
- You can't zoom with your legs, only change the composition. Zoom or swap lenses when in need of different focal lengths.
- You can compress backgrounds to get rid of distracting parts by using a longer focal length.
- If you want all around sharp pics, go for f9. For more DOF try f1.8 to 5.4.



## Posing & portraits

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- Show your subject good pictures during the shoot, stay positive and explain what you're doing, ie taking a few test shots.
- Direct your subject and act out poses you'd like to see rather than just telling them what to do.
- Ask your subject to follow your finger when positioning their head.
- Tell your subject to imagine there's a string on the top of their head that's being pulled up. This reduces slouching.
- Have your subject shake their hands madly. This relaxes the fingers which always looks better than overly tight grips.
- Ask your subject to look at your finger, then slowly lower their chin while keeping their neck extended. This gets rid of under chins and loose skin on the neck.

- Aside from having your subject looking directly at you, also try having them to look away, turn around, sit down or even walk away from you. This could lead to interesting shots.
- Everything closer the camera will look bigger. You can use this to make certain body parts stand out more, or less. IE: One leg in front of the other, face forwards and a triangle of space in the elbow makes one appear thinner.
- A small focal point results in a wider face, a large focal point in a taller face.
- Never have things popping up from behind your subject's head. Instead reposition yourself or have your subject move.
- Always do a few full body shots and close-ups. They always work and afterwards you can get more creative which may be a hit or miss.
- Props can greatly improve a picture, even simple ones like books or pens.

## Angles

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- Low angle: Makes subjects appear *taller* and more *dominant*. Works great with *strong, powerful and dominant looks*. Beware of accidental under chin!
- Eye level: The standard that always gets the job done. Try combining it with side-eyes for the ultimate *casual, pretty or bitchy look*. Also when going for a slight angle, make sure the nose isn't sticking out over the cheeks.
- High angle: Makes subjects appear *smaller, fragile* or *in danger*. Works great with *cute and scared* looks.
- Dutch angle: *Unconventional* and makes pictures look more *active*. Great for *action shots, dramatic moments* and *power poses* Just don't overdo it like some one-trick pony.
- Over the shoulder: Shows that *something is going on*. Combine with a close up for raw negative emotions.
- Close up: draws all the attention to the face. Works great with *strong emotions* and *complex faces*.



## Landscape and cityscape

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- Framing is key. The rule of thirds and golden ratio are easy to visualize in your head when taking a shot.
- Leading lines make for a more interesting shot as they direct the eyes from the edge towards your subject. Think rivers, walls, streets and fences coming in from the side, but also pathways in the middle.
- Long exposures will smooth out clouds, water. Use a (variable) ND filter during the day for this.
- Don't forget to look up and behind you for those easy to miss angles.
- Larger focal lengths will compress the background more and can be used for better framing.
- Keep an eye out on the sun. the midst of day isn't the best time for shooting, the golden hour makes everything warm and pretty, but the blue hour also has its charm.
- Don't linger around in one place too much. Take a few shots and move on.





## Flash Photography

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- Make sure you set up your camera correctly:
  - Manual mode
  - Fastest shutter speed: 1/200<sup>th</sup>
  - Set white balance to flash
  - Start with ISO 200
  - Aperture can be whatever you want.
- When using a manual flash, set the flash zoom correctly based on your focal length.
- Aiming the flash directly at someone removes all shadows. A downward angle is flattering, so try bouncing light off walls, ceilings or a reflector when using on-camera flash.
- Softboxes diffuse your light, making any and all shadows less harsh.
- Coloured gels can instantly create coloured backgrounds on white walls, or make pictures appear warmer or colder depending on the colour you used.

- You can manually blast multiple flashes at different spots, or on a moving subject during a long exposure for creative effects.

# Astrophotography

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- Make sure you set up your camera correctly:
  - Use a tripod and a remote shutter.
  - Manual mode.
  - Use NPF or 500 rule for pictures without star trails, or Lunar 11 for pictures of the moon.
  - Disable noise reduction.
  - Disable image stabilization.
- The ideal lens for astrophotography has a 18 to 35mm focal length and large aperture.
- Set the aperture by going for the largest possible aperture and dialling it back two steps to get more sharpness.
- Perfect shooting conditions are a cold nights with a clear sky. If you want to shoot stars a night without a visible moon works best.
- Shoot at a location with as little light pollution as possible. Even when shooting in your garden, turning off any lights greatly improves your shots.

NPF rule:

$$\text{shutter speed (seconds)} = \frac{(35 * \text{aperture} + 137.2)}{\text{focal length}}$$

500 rule on crop frame camera

(astrophotography, ISO ±1600, f9~f11):

$$\text{shutter speed} = \frac{500}{\text{focal length} * 1.5} - 5$$

18mm: 18s

24mm: 14s

35mm: 9s

50mm: 6s

70mm: 4s

110mm: 3s

200mm: 1s