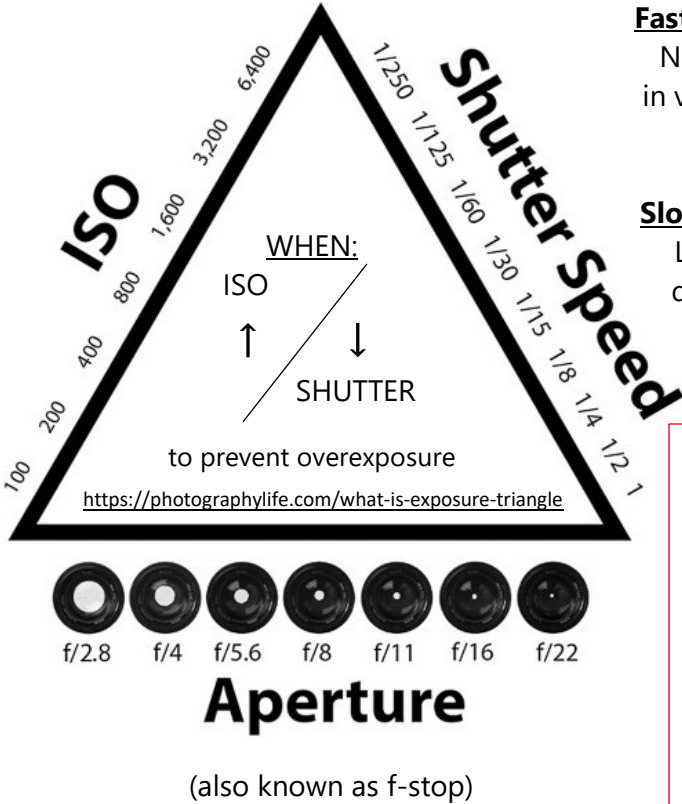


Higher ISO
Brightens the image
(increases exposure and noise/grainy images)

Lower ISO
Darkens the image
(decreases exposure)

Faster/Higher/Short Shutter
No need to let light in (used in very bright areas; shutter is too fast to let in light)

Slower/Lower/Long Shutter
Lets in more light (used for dark areas; shutter slows to allow more light to enter)
*will create motion blur



Issue #1:
Dim Lighting
Action Photo
Aperture = f/11 (too dim)
Shutter = 1/2000

The lens needs to be opened wider and shutter needs to be slowed to let in light but slowing the shutter too much can cause blur.

Issue #2:
Bright Day
Landscape Photo
Aperture = f/22
Shutter = 1/2000 (too fast)

The smaller lens needs more time to let light in but lowering the shutter too much will create glare on a bright day.

Bigger Hole = Light Allowed = Shallow Depth
Increases Exposure
Capture more light
Good for focusing on one thing and blurring the rest

Smaller Hole = Light Blocked = Wider Depth
Decreases Exposure
For very bright areas (will not capture light)
Good for sharp images of large areas

NOTES	Shutter Priority Shooting 1/250 for slower moving subjects (kids) 1/500 for faster moving subjects (sports) 1/2000 for very fast-moving subjects (cars) Auto ISO	Portrait shooting Aperture Priority Low f/stop for headshots (zoomed in) Higher f/stop for families (wider view) Auto ISO 2nd subject out of focus – higher f/stop - Not enough background blur – lower f/stop - Increase shutter speed for moving subjects
	Manual Mode Allows you to adjust Aperture and Shutter Speed Stay on Auto ISO	Day-to-day shooting Aperture Priority Lowest f/stop Auto ISO
SHOOT, REVIEW & ADJUST		

~~~~~ QUICK INSTRUCTIONS ~~~~~

**Landscape Photography**

- Use aperture-priority set to f/8 (or wider for more depth—front to back)
- Set ISO to base value (shutter speed is automatic in this mode)

**Portrait Photography**

- Use aperture-priority set to f/2.8 (shallow for very close, wider for farther away)
- Raising your ISO will increase light and shutter speed which decreases motion blur

**Sports and Wildlife**

- Use shutter-priority (aperture-priority will create grainy images)
- You will need fast shutter speed which decreases motion blur (may need higher ISO for darkness)

| Symbol | Exposure Mode                  | Description                                                                                                                                         |
|--------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| P      | Programmed Autoexposure        | Camera selects both the f-stop and shutter speed to ensure proper exposure, but the user can choose from multiple combinations of the two settings. |
| A      | Aperture-priority Autoexposure | The user selects f-stop, and the camera selects the shutter speed that will produce a good exposure.                                                |
| S      | Shutter-priority Autoexposure  | The user sets shutter speed, and the camera selects the f-stop that will produce a good exposure.                                                   |
| M      | Manual Exposure                | The user controls both the shutter speed and f-stop.                                                                                                |