

Introduction to Photo Exposure

Understanding getting a correct exposure

And various combinations of the correct exposure

Correct Exposure



Over Exposed



About Right



Under Exposed

Exposure

- An Exposure is a result of:
 - The amount of light that comes through the lens
&
 - The length of time the shutter is open for

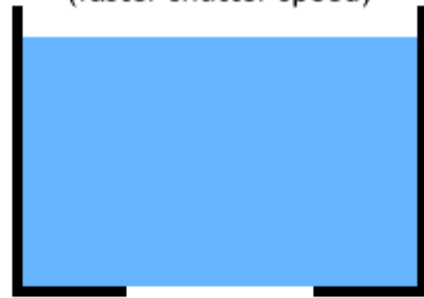
This controls the amount of light that hits the
sensor

- You can vary the combination of shutter speed & aperture (The size of the hole in the lens)

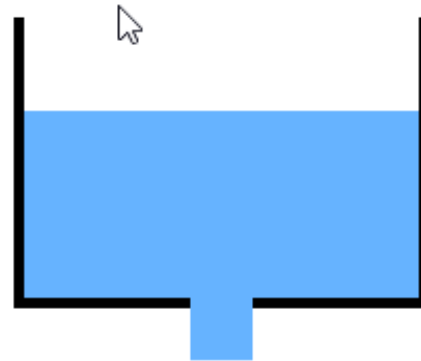
Buckets of Water

Large Aperture
Water drains out faster
(faster shutter speed)

Small Aperture
Water drains out slower
(slower shutter speed)



0 seconds



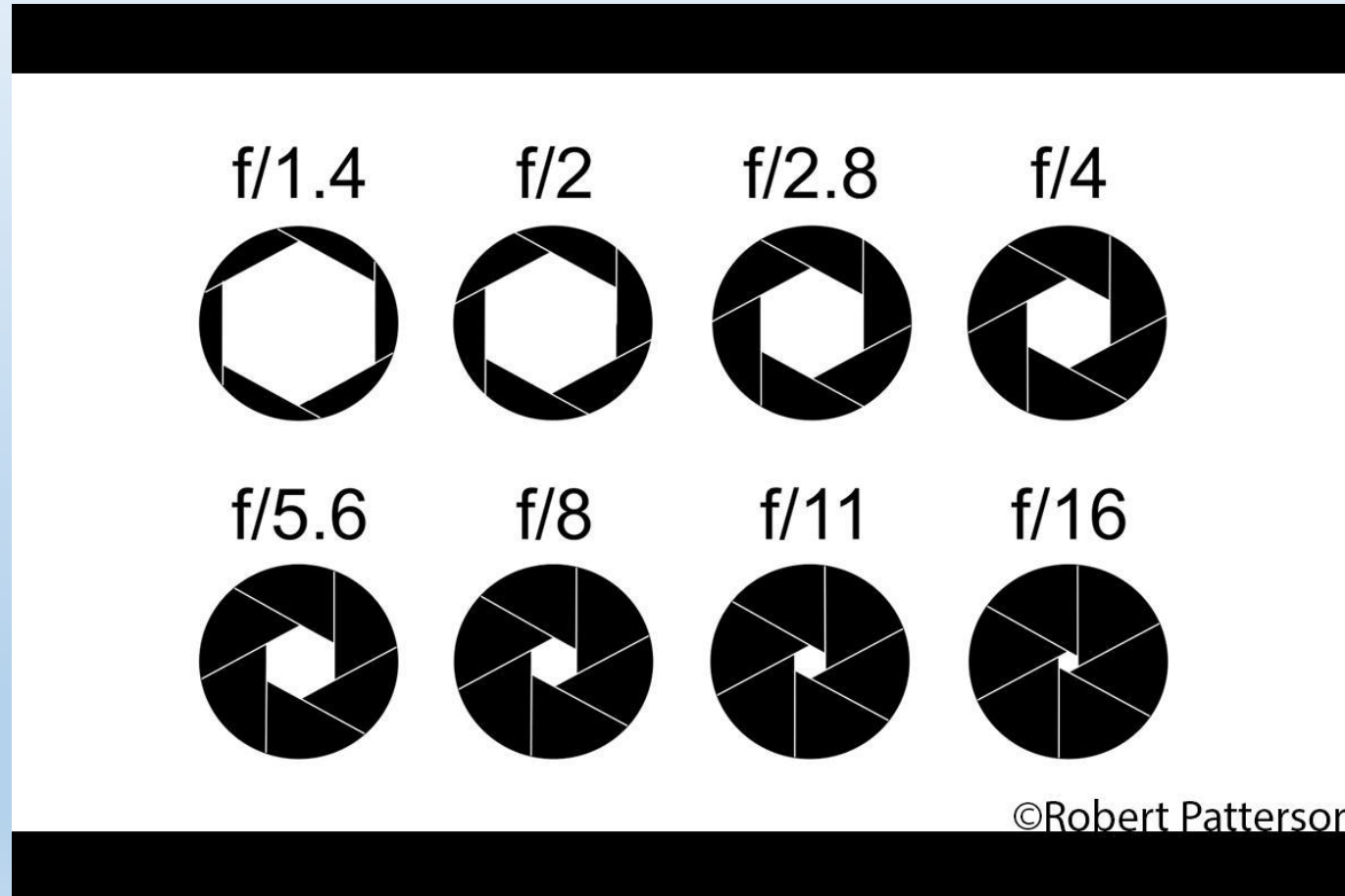
2 seconds



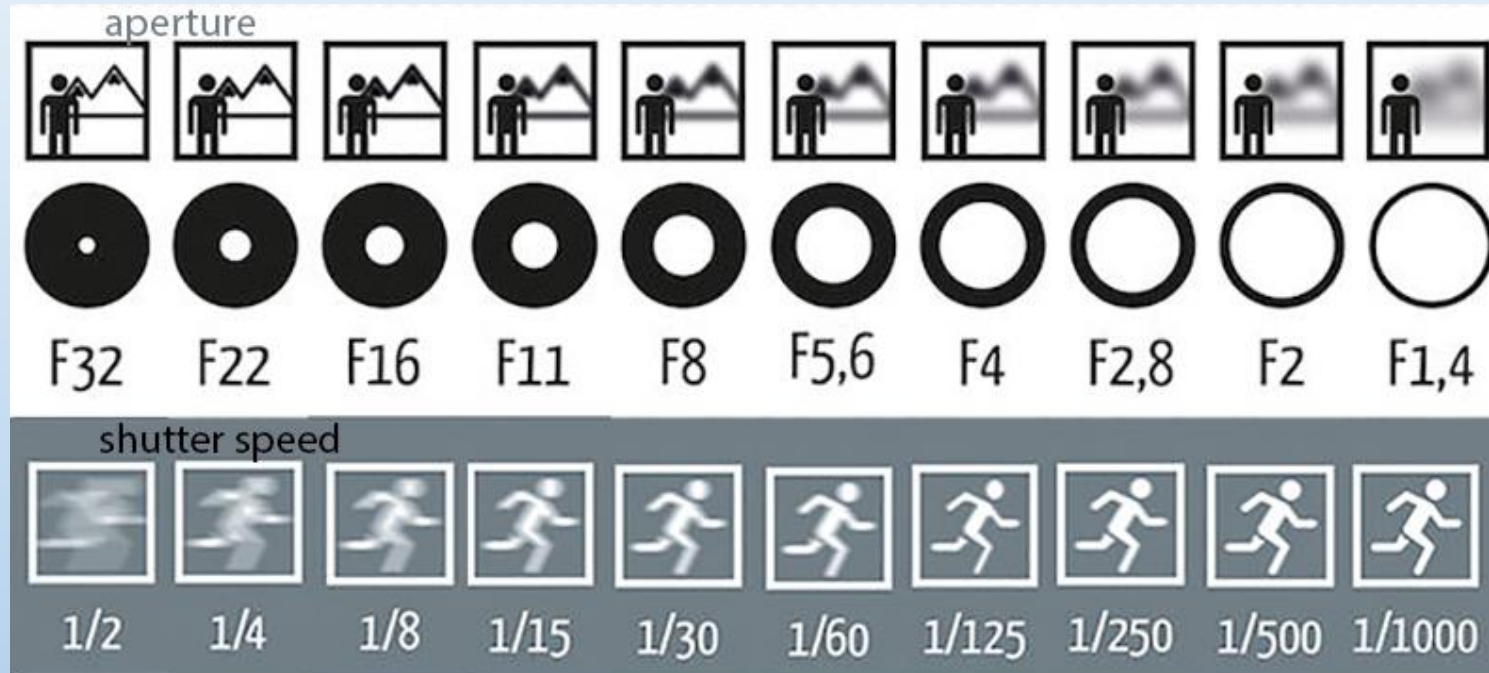
4 seconds

Aperture:

Each value is half of the previous value



For each aperture values there is a corresponding correct shutter speed



As aperture value decreases: shutter speed gets faster

NUMERIC
VALUE

Why do we want to vary speed & aperture

- Aperture allows control of 'Depth of Field'
 - The amount of a picture that is sharp (from front to back)



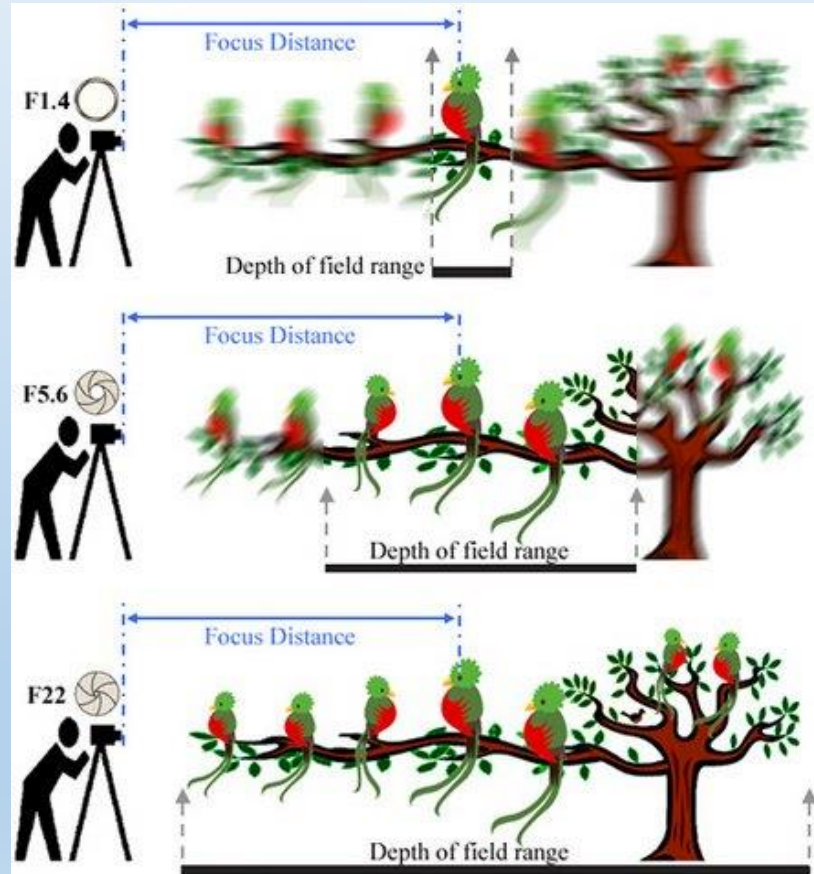
- Shutter Speed controls the sharpness



Depth of Field

The wider the aperture
The less depth is in focus

The smaller the aperture
The more depth is in focus



F32 everything in focus



**F5.6 focus drops off in foreground
And background**



Shutter speed



Slow Shutter Speed

Medium Shutter Speed

Fast Shutter Speed

Shutter Speed

- Generally use the fastest shutter speed you can
- Use fast shutter speed to freeze movement
 - Runners
 - Motor sport
- Use slow speed to show movement (needs a tripod or similar)
 - Water flow
 - Traffic flow at night



1/1000sec



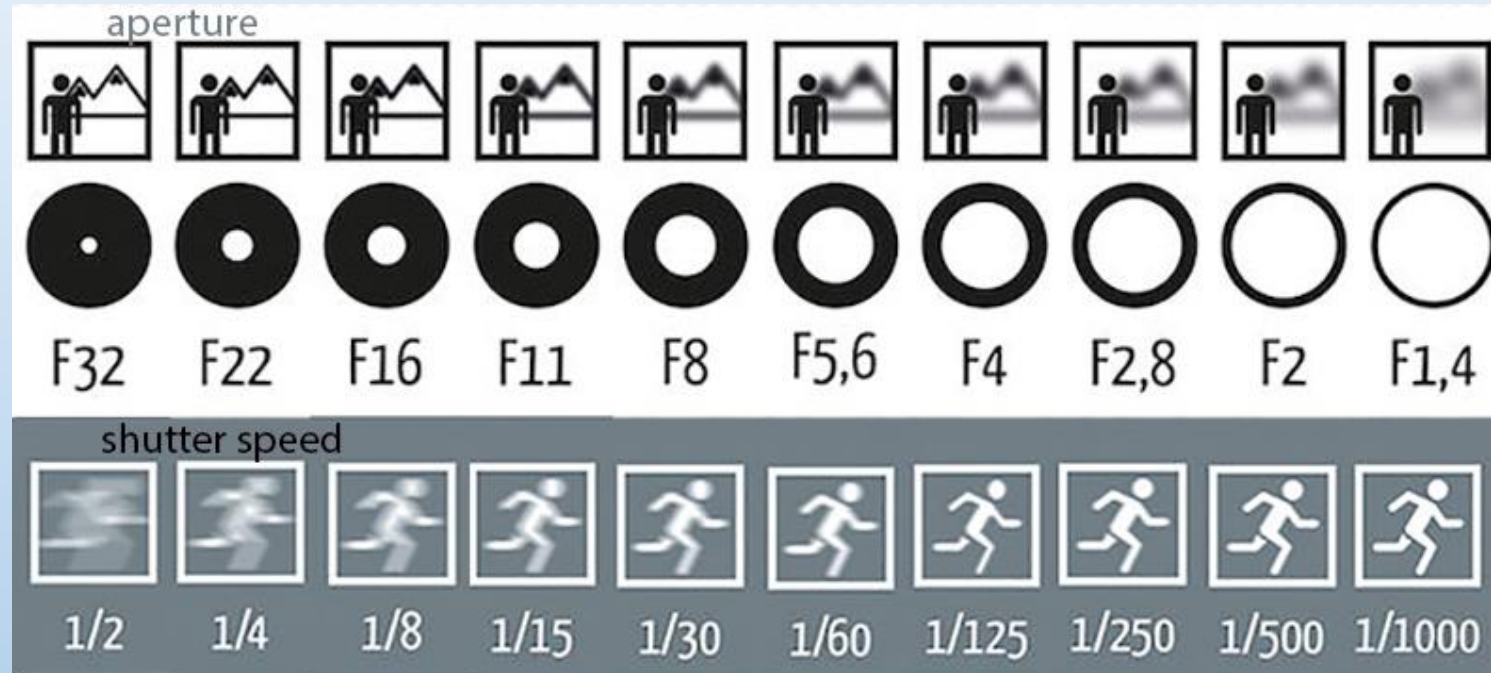
1/125sec



1 second

To recap

For each aperture values there is a corresponding correct shutter speed



As aperture value decreases: shutter speed gets faster

You pays your money and you take your choice