Photography
The Basics
Week 2
Shutter

The Shutter

The Shutter And Light

Shutter speed is how long an image is exposed to light — it can be milliseconds, or even minutes.

If the shutter is left open for a long time, the lens will let in a lot of light, and unless you are shooting a very dark scene, the image will be too bright, or overexposed. If the shutter speed is too fast, on the other hand, the photograph will be too dark.

The shutter controls the amount of light entering the camera by the length of time it remains open. Cameras used to provide shutter speeds only in full "stops" that let in half the amount of light of the shutter speed before it, or double that of the one after it. Most of today's cameras also have shutter speeds in one-third stops. The shutter speed is marked as the denominator or the fraction of a second that the shutter remains open.

One Second or Shorter

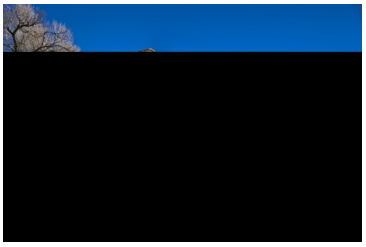
Time:	**1**			**1/2**			**1/4**			**1/8**			**1/15**			**1/30**			**1/60**			**1/125**			**1/250**
Display:	**1"**	1.3	1.6	**2**	2.5	3	**4**	5	6	**8**	10	13	**15**	20	25	**30**	40	50	**60**	80	100	**125**	160	200	**250**

One Second or Longer

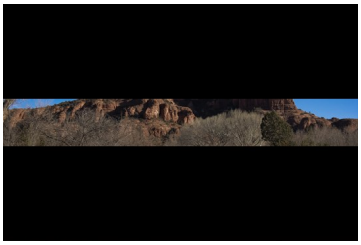
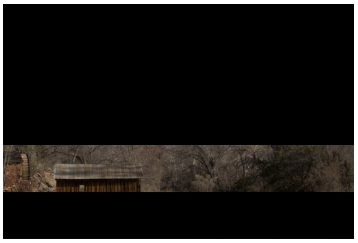
Time:	**1**			**2**			**4**			**8**			**15**			**30**	As long as button held
Display:	**1"**	1.3"	1.6"	**2"**	2.5"	3"	**4"**	5"	6"	**8"**	10"	13"	**15"**	20"	25"	**30"**	bulb

Focal-Plane Shutter

Built into the 35 mm camera body, just in front of the film/sensor. The shutter is made of two overlapping curtains that form an adjustable slit.


DSLR cameras have a guillotine style shutter. At fast shutter speeds…..


The slit is narrow and exposes only part of the media at any given time.

Mirrorless cameras:

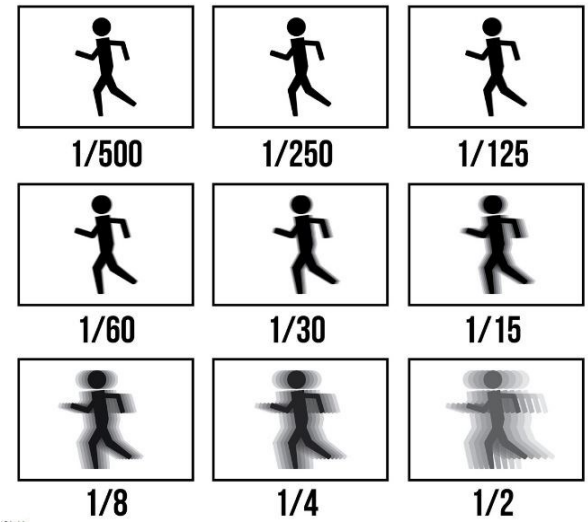
Electronic shutters can allow much higher shutter speeds than mechanical ones. Whereas many DSLRs are limited to top speeds of 1/4000sec or 1/8000sec, it's usually possible to access shutter speeds of around 1/32,000sec on even cheaper mirrorless cameras with these electronic shutters

The Shutter And Motion

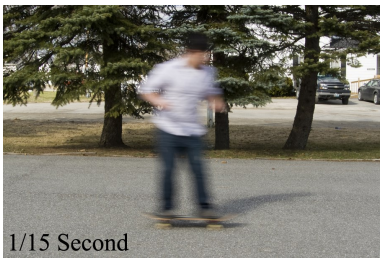
The faster the shutter speed, the more likely a moving subject will be sharp.

Factors that affect the amount of blurring in a photograph:

1. How far the subject actually travels across the media during exposure



2. The direction of the moving object.



3. Motion slows at the peak of an action that reverses (i.e. jumping)

4. Panning – keeps a moving subject sharp while blurring the background.

5. Others ways to convey motion in a still photograph.

ASSIGNMENTS:

USE SHUTTER SPEED PRIORITY MODE – Tv in Canon, S in Nikon

1. Try Panning Shots - choose a horizontally moving object and shutter speed of 1/8 - 1/15
2. Try slow shutter speed shots (1/30 or slower) – sports, running dogs or children, traffic, ceiling fan, people waving, etc
3. Try fast shutter speed shots (1/125 or faster)

Keep notes of what you are doing

NOTES: