

CMT11 • Halifax West High School

Semester 2: February - June 20116

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Camera Basics: Aperture- Changing the Depth of Field

Unit 2: Photography

-recognizing the uses and connections of digital images

-demonstrate an understanding of the basic operation and care of a digital camera.

-create and store an image from a digital camera.



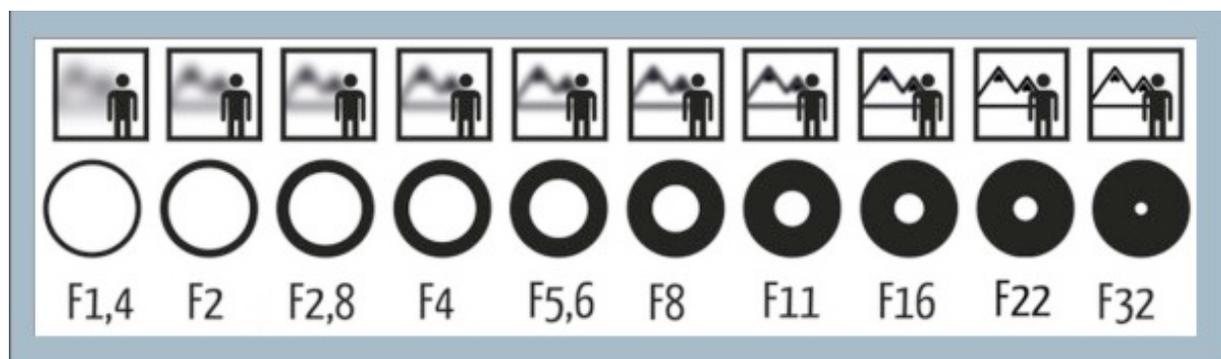
Aperture means “opening”

In Photography, the aperture setting refers to how “open” the iris of the camera is.

The iris of a camera is just like the pupil in your eye- it opens and closes to control the amount of light that gets through to the recording sensors (in the olden days, it would have been film)

Aperture is known as “f-stop”. You may hear photographers talking about “stepping down” or “stepping up”. You may hear them say “opening up” or having the lens “wide open”. They are talking about aperture.

Opening or closing the iris has a very significant effect. It changes the depth of field. A shallow depth of field means you can only see so far, and the background will be blurry (great for portraits) A narrow depth of field means you can see all the way to the horizon- or further! (great for landscapes or travel photography).



Watch Videos

<https://www.youtube.com/watch?v=oobLnqpuAk4> 1.10

<https://www.youtube.com/watch?v=S4bjCeDPs2s> 4.27

https://www.youtube.com/watch?v=6_B8pVoANyY

(about 3 minutes) Start at 3:50 End at 7:37 “what are you being crabby for”

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Assignment: Experimenting with Aperture

There is a setting on your camera that lets YOU control the aperture, but the camera will compensate, so enough light gets through.

A- Nikon

AV- Canon

You will need:

Partner

DSLR Camera and Tripod

Subject/location/background

Checklist (below)

Part A: Location Shoot (Partners/Individual)

1. Go out around the school and find a **subject of interest** (person, plant, car, etc). Whatever you select **must be framed against a background containing detail** (buildings, classroom, crowd scene, etc). Select an environment with suitable light.
2. Attach your camera to a **tripod**.
3. Set your camera to **AV- aperture value**.
3. Frame/organise your subject.
4. Use the zoom lens to find a desirable focal length (zoom)
5. Once you have set up, **do not move the camera or change the focal length** (zoom).
6. **Each student** takes photos according to the **checklist** below. From the F-Stop range, shoot at the most **wide open, standard and very small**. Then **choose 2 settings** midway between the 'standard' and 'small' range (5 in total). Take as many as you like but you need only present 5. Help each other.
7. Once you have analysed the photos (on the camera screen using the 'play' button), note the effect.

Aperture	Size of Iris	Check	Effect
F 3.5	Wide open		
F 4			
F 4.5			
F 5			
F 5.6	Standard		
F 6.3			
F 7.1			
F 8			
F 9			
F 10			
F 11			
F 13			
F 14			
F 16			
F 18			
F 20			
F 22			
F 25			
F 29			
F 32	Very small		

**Please not that aperture settings may be limited due to camera lens size. Your widest setting may read as F 3.5 or F4. It is fine to work within this range as you should still obtain the desired effect.*

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Part B: Presentation & Submission (individual)

1. Design a PowerPoint that begins with a Title page including your name (*value=2*)
2. Create 5 pages for your photographs. 1-page per picture. (*value=10*)
3. Clearly title each page/photograph in sequence. F1.4, F2, F2.8, etc. Add a suitable 'Effect' comment to each photo (refer to checklist). (*value=10*)
4. Add a nice photograph of yourself on location with camera equipment. Your partner may take this on any camera/device. (*value=2*)
5. Submit assignment via your GNSPES account and then present your work to the class

AV setting on the Canon EOS SL1



1 Set the Mode Dial to <Av>.



2 Set the desired aperture.

- The higher the f/number, the wider the depth of field where sharper focus is obtained in both the foreground and background.
- Turning the <🔧> dial to the right will set a higher f/number (smaller aperture opening), and turning it to the left will set a lower f/number (larger aperture opening).



3 Take the picture.

- Focus and press the shutter button completely. The picture will be taken with the selected aperture.

Submit for Assessment

1. Individual Aperture PowerPoint presentation showing 5 'identical' photos with various F-stops/Depth of Field effects (Total value=24)

Deadline for submission- Friday 19th Feb 2016

M. Barker Feb 2016

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