

**Grab a pen or pencil
& Put your bag in a
cubby!**



Camera Basics

Day 2



AGENDA

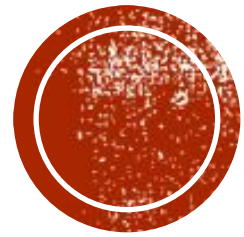
- **CAMERA BASICS - Day 2**
(Picking up where we left off!)

- Getting to know your DSLR
- Find a partner in 3 minutes!
- Check Out Cameras
- Camera Settings & Buttons
Follow Along Labeling &
Review
- Turn in Cameras
- Complete Digital Cameras
101
- Score Worksheets

- **LOOKING AHEAD...**

- Ticket Out the Door
 - Camera Button WS
 - Camera Basics WS
- Late assignments:
 - Scavenger Hunt Photos
 - Course Descriptions **Due LAST CLASS** (That's your ticket out the door at the end of class.)



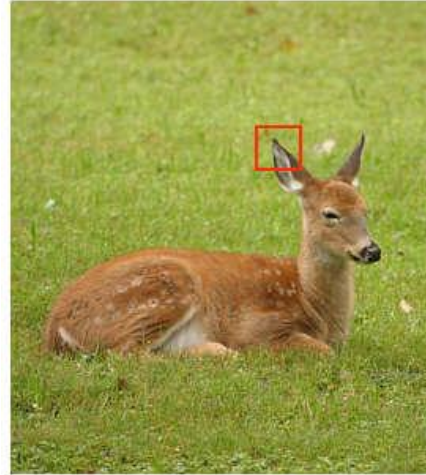


DIGITAL PHOTOS

Digital photographs are taken using digital camera equipment that creates and records images made up of square colored pixels rather than relying on film, chemicals, and chemical reactions.

PIXELS & RESOLUTION

- Digital photos are made up of **pixels** (picture elements). The image to the right shows a close up of a photograph to reveal the square pixels that make up the image.
- DPI vs PPI
 - DPI – Dots Per Inch (How a printer prints the image)
 - PPI – Pixels Per Inch (How a monitor displays an image)
- The resolution of a digital photo is its **pixel dimensions**.
- Digital cameras use megapixels to specify the pixel dimensions of its photos.



RESOLUTION MEANS QUALITY

- Low resolution images produce fuzzy poor quality photos.
- Shoot your photos at a high resolution.
- Most printers print at 300 dpi max so **ALWAYS** turn your photos in at 300 dpi.



WHAT “MEGAPIXELS” ACUTALLY MEAN...

- Megapixels tells you what the largest size print you can expect from your camera without sacrificing quality
- A higher megapixel rating does not mean higher quality prints
- Megapixels are really used to upsell cameras

How Big Can I Print?

Megapixels	8	12	16	18	24	36	40
Print Size							
5x7"	✓	✓	✓	✓	✓	✓	✓
8x10"	✓	✓	✓	✓	✓	✓	✓
11x14"	✓	✓	✓	✓	✓	✓	✓
16x20"	✗	✓	✓	✓	✓	✓	✓
16x24"	✗	✓	✓	✓	✓	✓	✓
20x30"	✗	✓	✓	✓	✓	✓	✓
24x36"	✗	✗	✓	✓	✓	✓	✓
30x40"	✗	✗	✓	✓	✓	✓	✓
40x60"	✗	✗	✗	✗	✓	✓	✓
Billboard	✗	✗	✓	✓	✓	✓	✓

✓ Perfect Quality

✓ Good Quality

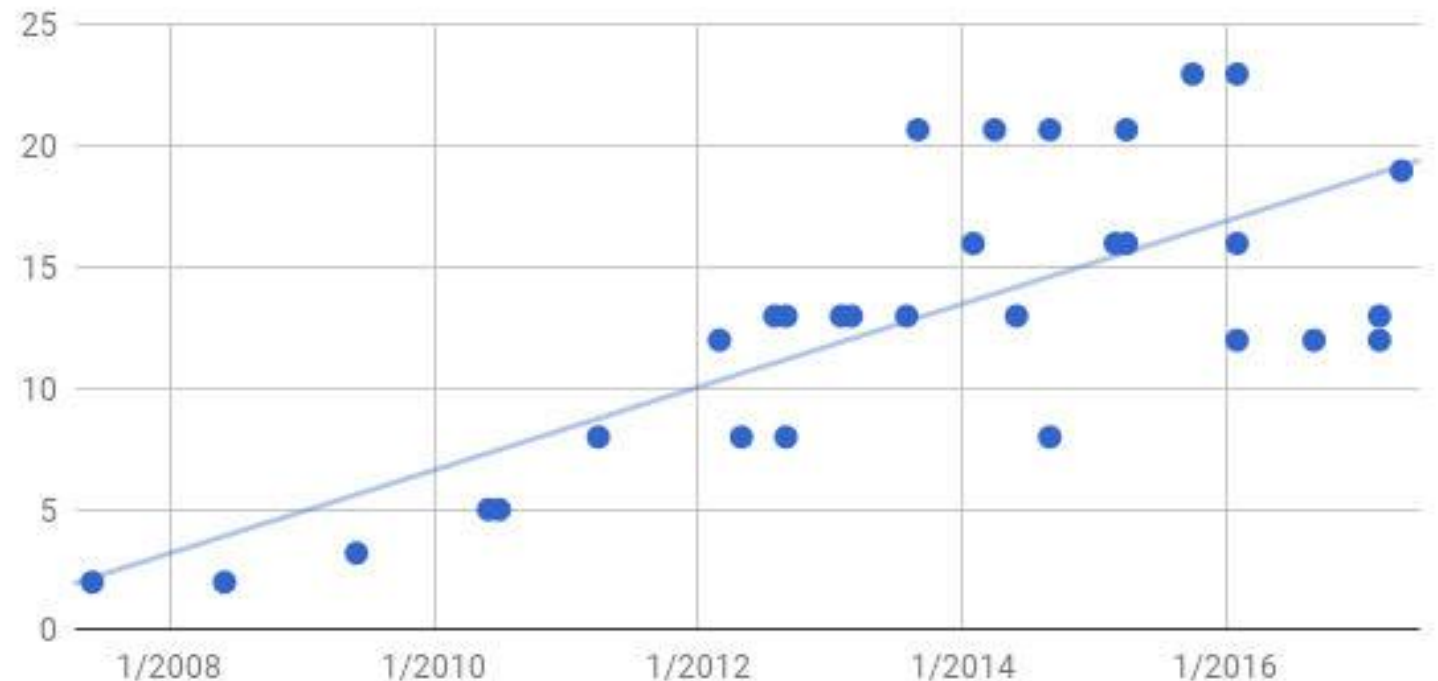
✗ Low Resolution



WHAT “MEGAPIXELS” ACUTALLY MEAN...










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Megapixels (main camera)

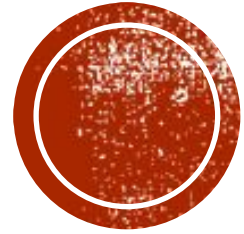


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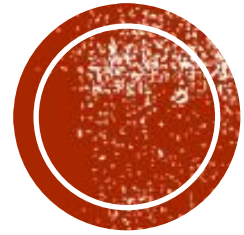
iPhone 5s	iPhone 5c	HTC One	Moto X	Galaxy S4	Nexus 5	Galaxy Note 3	LG G2	Lumia 1020
								
8MP	8MP	4MP	10MP	13MP	8MP	13MP	13MP	41MP
1.2MP front	1.2MP front	2.1MP front	2MP front	2MP front	1.3MP front	2MP front	2.1MP front	1.2MP front





WHAT IS A DIGITAL CAMERA?

A camera that takes video or still photographs (or both) digitally by recording images on a light-sensitive sensor rather than relying on chemical reactions on a chemically treated surface such as film.



TYPES OF DIGITAL CAMERAS

Note: This is about different TYPES of digital cameras NOT different BRANDS. Common brands of digital cameras include: Nikon, Canon, Sony, Minolta, Hasselblad, Olympus, Leica, Fujifilm, Pentax, Lumex, and more.

ULTRA COMPACT CAMERAS

- Tiny cameras that can easily be hidden
- Go Pro Cameras, pet collar cameras, pen cameras, spy cameras, etc.
- The goal is to record moments rather than compose beautiful photographs.



COMPACT CAMERAS

- The typical digital camera used for taking most pictures by consumers
- Includes most of the features the average person would need
- Typically a small and inexpensive camera
- Can easily be carried in a pocket or purse



ADVANCED (AKA BRIDGE) CAMERAS

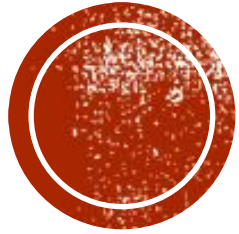
- Designed for the more skilled or hobbyist photographer
- Usually has higher quality lens and zoom
- Fixed lens that cannot be changed
- More advanced controls



DSLR CAMERAS

- Top-of-the-line camera; primarily used by professionals
- Include high quality, interchangeable lenses
- Often accepts other accessories such as filters
- Produces very high-resolution photos
- DSLR = Digital Single Lens Reflex





LENSES



ANATOMY OF A LENS



LENS



DIFFERENT TYPES OF LENSES



Wide Angle



Fisheye



Macro Lens



WIDE ANGLE



Focal length:
8mm - 35mm

Angle of view:
180° - 63°



STANDARD



Focal length:
35mm - 85mm

Angle of view:
63° - 28°



TELEPHOTO



Short Telephoto
Focal length:
85mm-135mm

Angle of view:
28° - 12°

Telephoto
Focal length:
135mm-200mm

Angle of view:
18° - 12°



SUPER TELEPHOTO

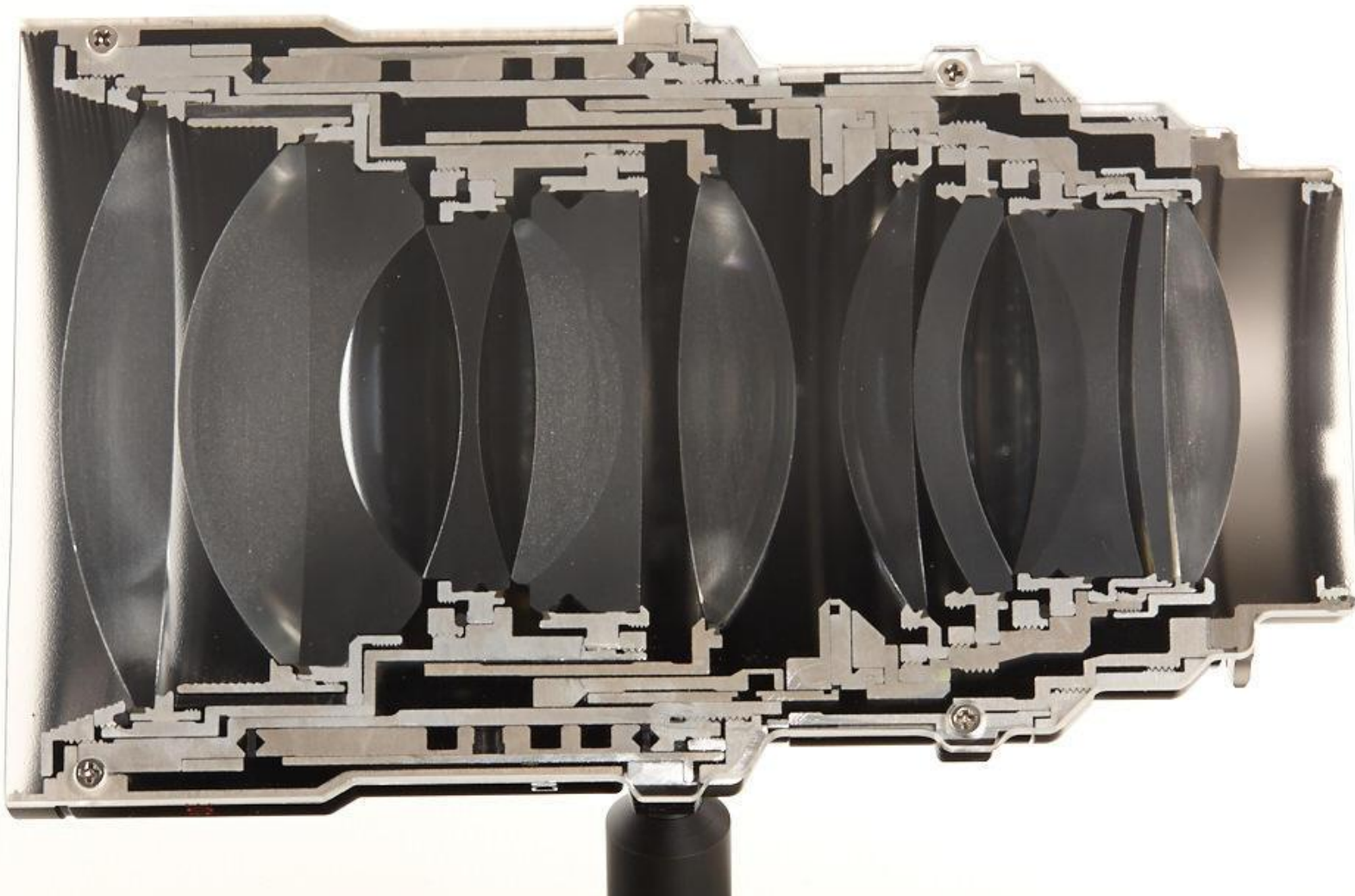


Focal length:
200mm - 800mm

Angle of view:
12° - 1°

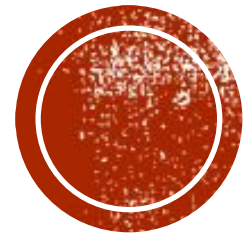


ANATOMY OF A LENS

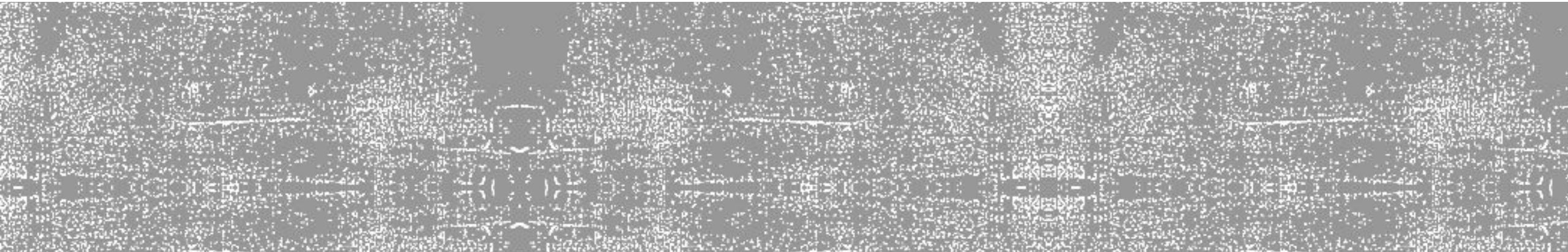


- **LENSES ARE MADE UP OF HIGH QUALITY REFINED GLASS**
 - This is a camera lens cut in half... How many individual glass lenses make up this one camera lens?





FOCUS



FOCUSING ON THE SUBJECT

- **Fixed Focus**

- Found on lower end cameras and phones as well as disposable cameras & Polaroids.
- The focus is fixed and can't be adjusted.



HOW TO FOCUS OUR CAMERAS...

- Autofocus: switch to AF and let the computer in your camera do the work
- Manual Focus: switch to MF and use the focus ring to focus



FOCUSING ON THE SUBJECT

- **Auto Focus (AF)**
 - Most consumer cameras are equipped with auto focus cameras
 - The auto focus activates as you start to press the shutter button.
 - The camera focuses the lens for you.
- **Manual Focus (MF)**
 - Found on most professional-level cameras
 - The photographer focuses the camera by adjusting the lens by hand



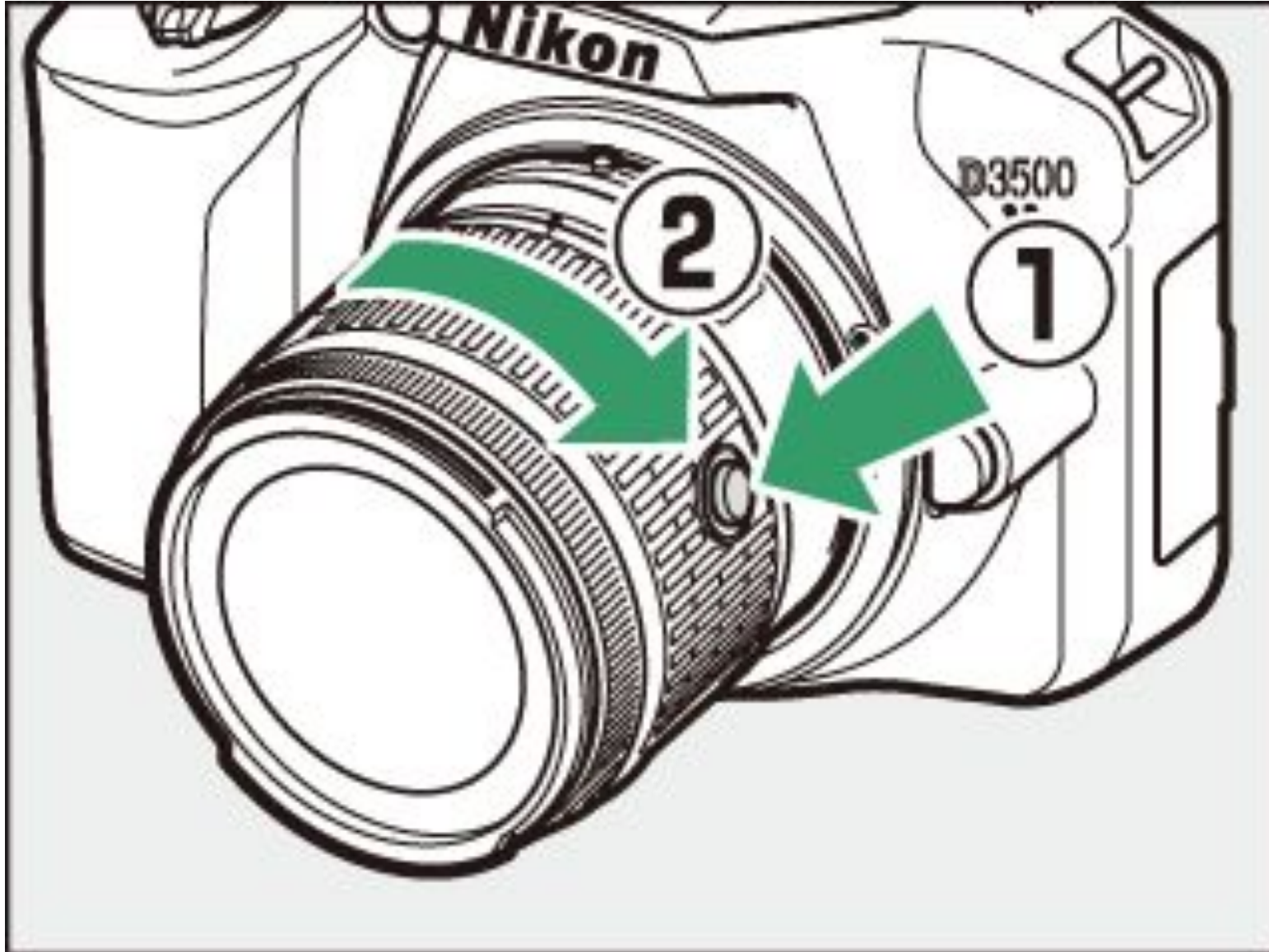
**FOCUS SWITCH IS FOUND
ON THE SIDE OF THE LENS.**



ANATOMY OF A LENS

**LENS
LOCK**





**Unlocking
your lens
so you can
zoom and
focus it...**



ANATOMY OF A LENS



**AUTO/
MANUAL
FOCUS
SWITCH**

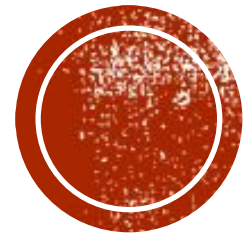


ANATOMY OF A LENS

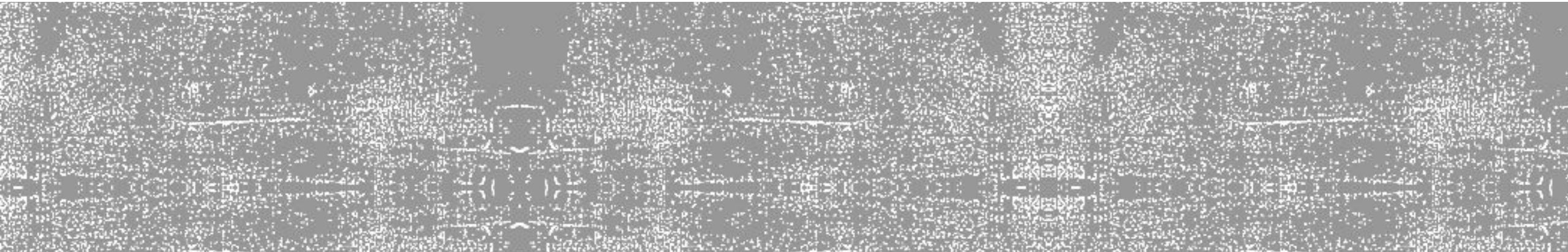


**FOCUS
RING**





TYPES OF ZOOM



2 DIFFERENT TYPES OF ZOOM



10x Optical Zoom



10x Digital Zoom



ZOOM

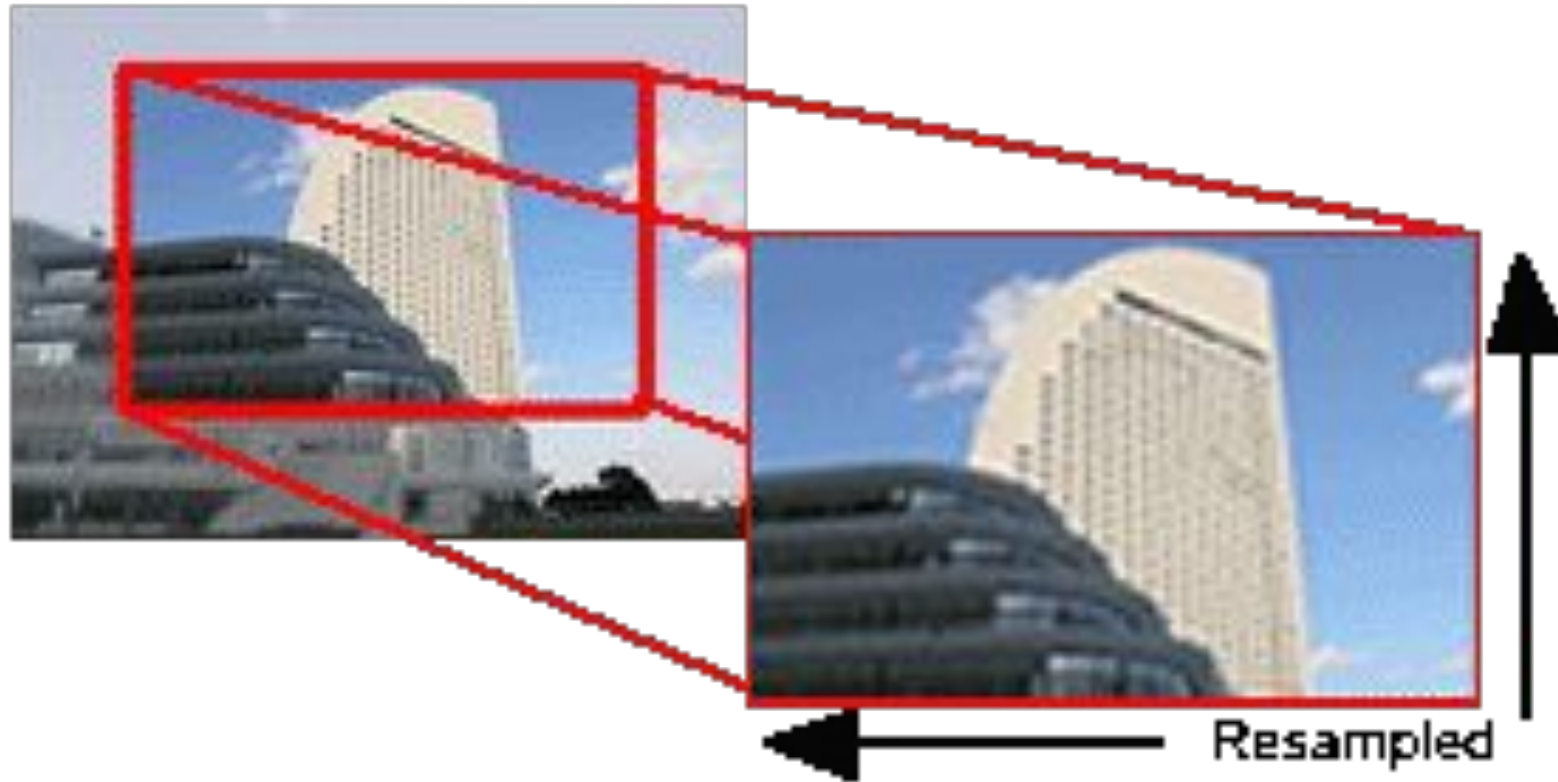


- **Optical Zoom**

- The subject is magnified through the camera's optics, or lens. (AKA Use the zoom ring on the camera!!!)
- Produces a higher quality image
- Image quality is maintained in optical zoom



ZOOM



- **Digital Zoom**

- Artificial zoom
- Crops your image and magnifies the result of the cropping
- Image quality is lost in digital zoom



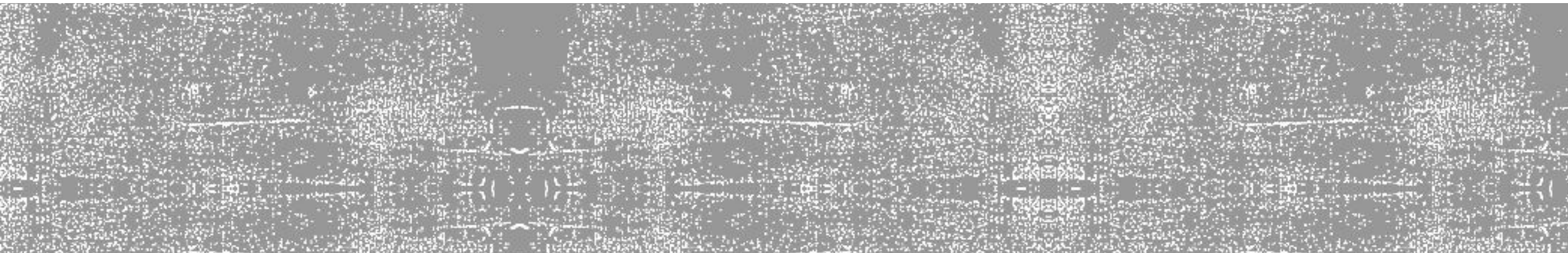
ANATOMY OF A LENS

**ZOOM
RING**





INSIDE THE LENS



ANATOMY OF A LENS



**LENS
RELEASE**



BEAWARE!

DO NOT TAKE THE LENS OFF AS YOU MAY EASILY DAMAGE THE CAMERA. EVEN DUST CAN PERMANENTLY RUIN A CAMERA!

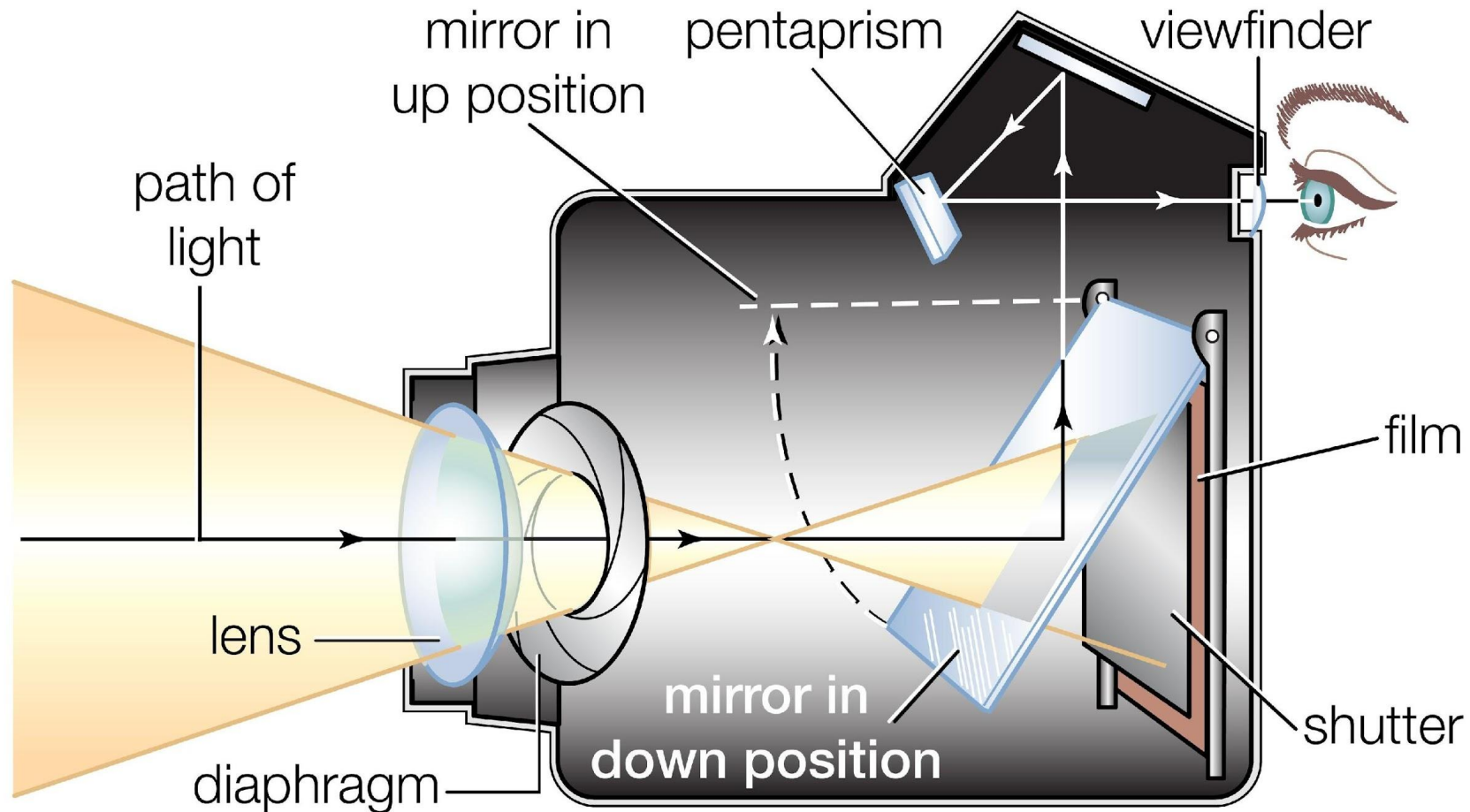


**MIRROR &
THE
SHUTTER
CURTAIN IS
BEHIND IT**



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**IF YOU'RE
HAVING
PROBLEMS
WITH A
LENS TALK
TO MS.Y**



CAMERA ANATOMY REVIEW



**LENS
RELEASE**

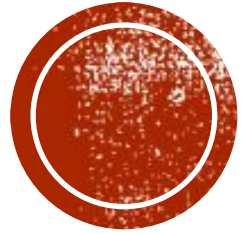


CAMERA ANATOMY REVIEW

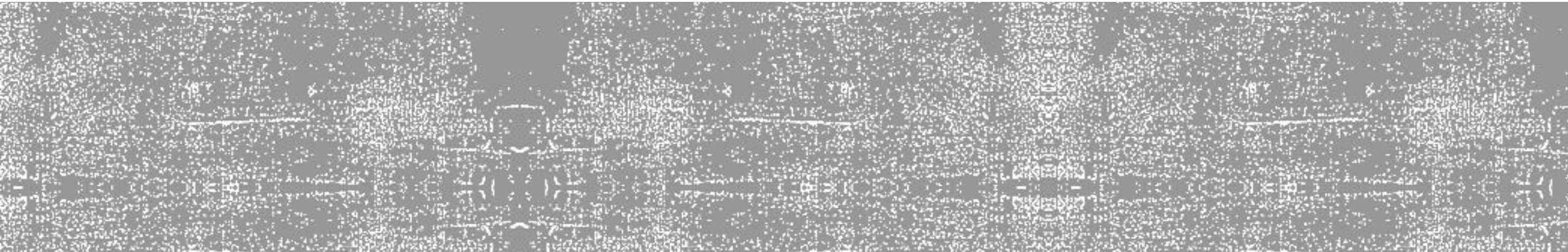


**MIRROR & THE
SHUTTER CURTAIN**





CAMERA BUTTON REVIEW...



CAMERA ANATOMY REVIEW



CAMERA ANATOMY REVIEW



FOCUS RING



CAMERA ANATOMY REVIEW



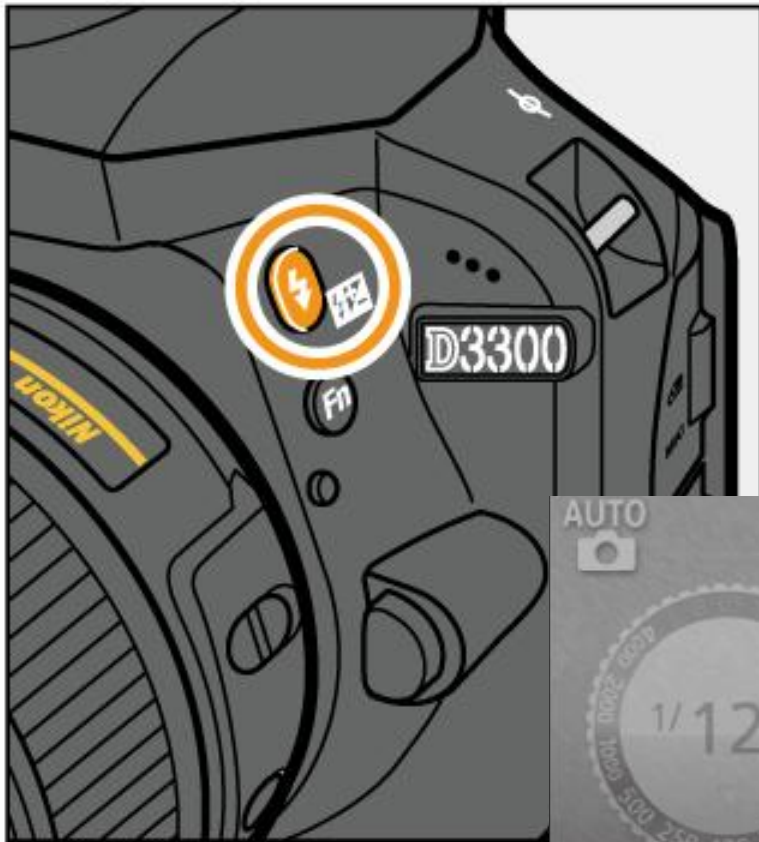
ZOOM RING



CAMERA ANATOMY REVIEW

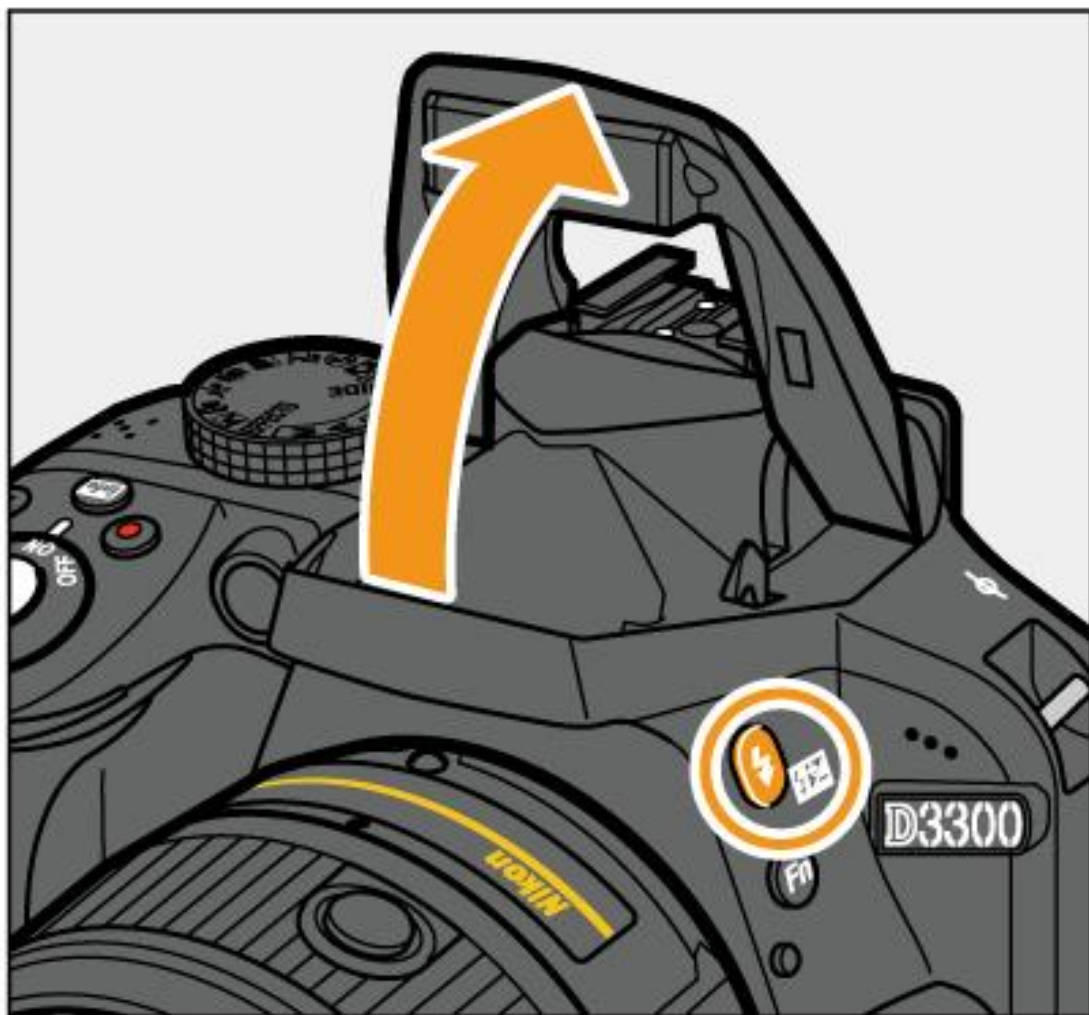
FLASH





Click on the flash button to turn the flash on and off on the camera. Double check the flash icon on the LCD screen to see if it's on or off.

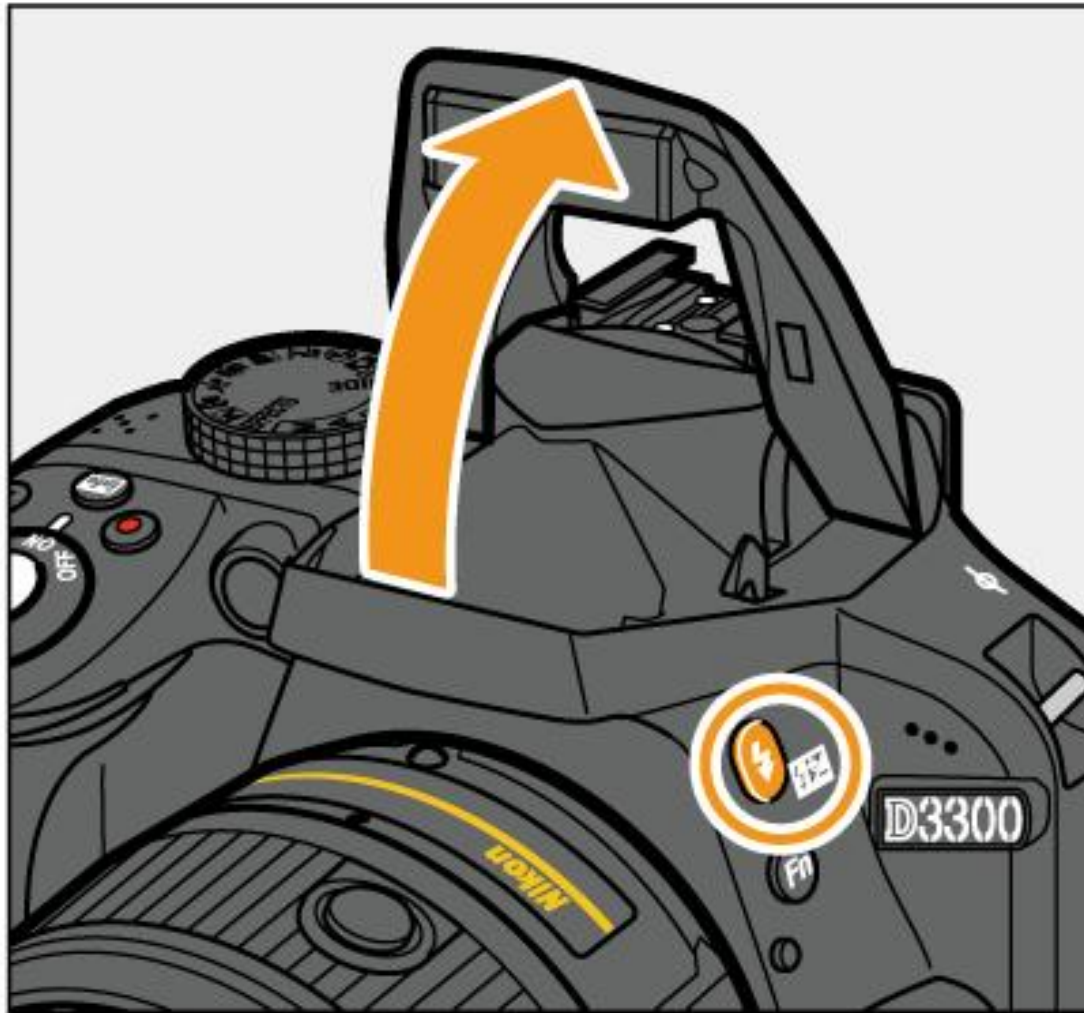




When you turn the flash on the built in flash will pop up! Try it now!

Click on the flash button to turn the flash on and off on the camera. Double check the flash icon on the LCD screen to see if it's on or off.





When you are done with the flash turn it off by pushing the button again and then gently pressing the flash down.

Click on the flash button to turn the flash on and off on the camera. Double check the flash icon on the LCD screen to see if it's on or off.



CAMERA ANATOMY REVIEW

**HOT
SHOE**



CAMERA ANATOMY REVIEW

**MODE
DIAL**





Scene modes

**Choose the
“P” setting
on the
Mode Dial –
this stands
for
“Program
Mode”**

**You’ll learn
about the other
modes later!**



CAMERA ANATOMY REVIEW



**SHOOTING
DRIVE**



CAMERA ANATOMY REVIEW



**INFORMATION
DISPLAY**



CAMERA ANATOMY REVIEW



POWER SWITCH

**SHUTTER
RELEASE BUTTON**



CAMERA ANATOMY REVIEW

**LENS
LOCK**



CAMERA ANATOMY REVIEW

**FLASH
BUTTON**



CAMERA ANATOMY REVIEW



**USB PORT
FOR DOWNLOADING**



CAMERA ANATOMY REVIEW

VIEWFINDER





**Look
through the
viewfinder
to see
through the
camera
lens and
compose
your photo.**



CAMERA ANATOMY REVIEW



**LCD
SCREEN**



CAMERA ANATOMY REVIEW

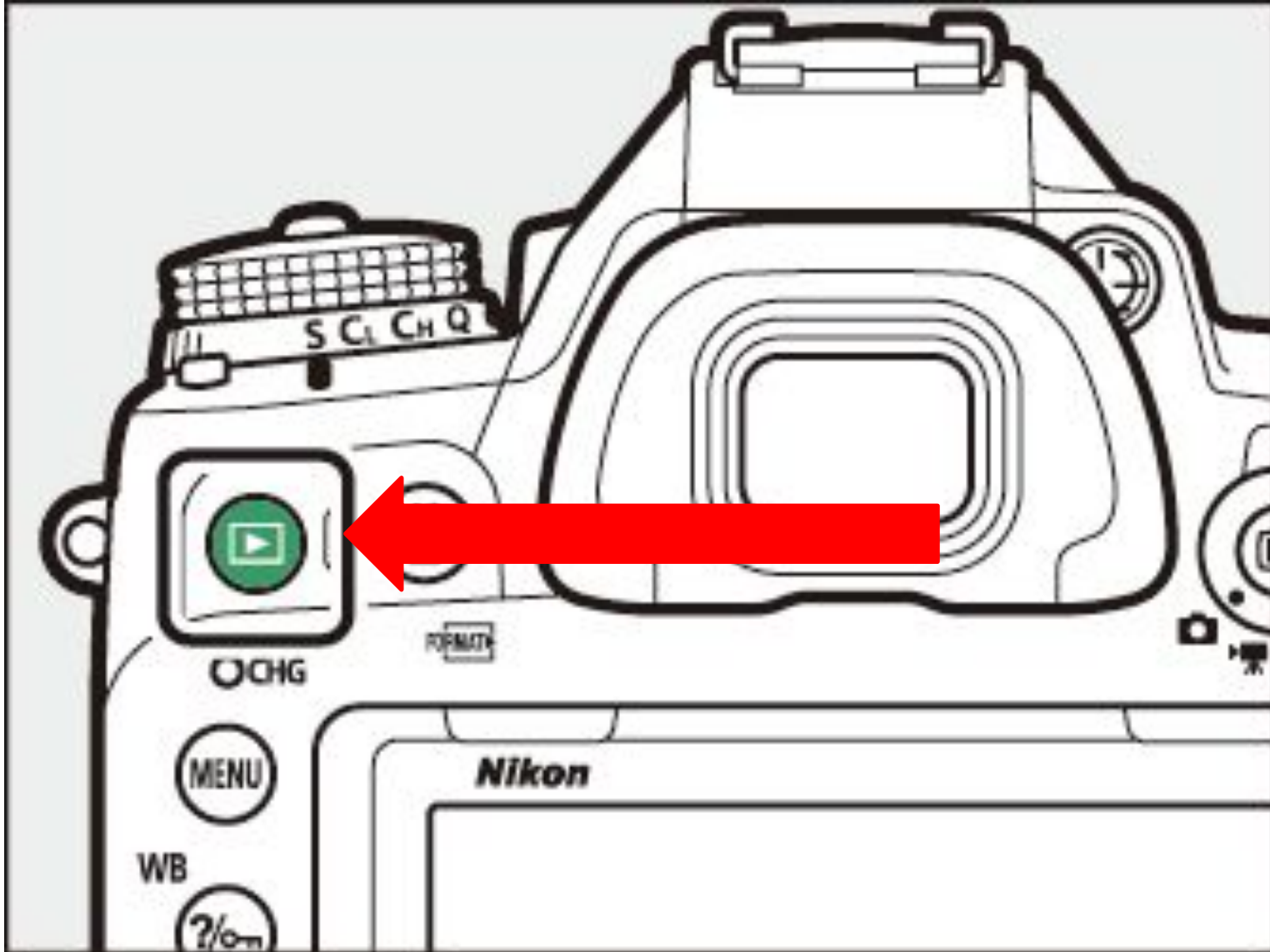
**MENU /
SETTINGS**



CAMERA ANATOMY REVIEW

**PLAYBACK
BUTTON**





**Press the
“Playback
button” to
look at the
photos you
just took.**



CAMERA ANATOMY REVIEW



**CROSS
KEYS**





Navigate through your photos using the "cross keys".



CAMERA ANATOMY REVIEW



ZOOM IN/OUT
WHEN REVIEWING PHOTOS





**Use the
Zoom keys
to get a
better look
at your
photos.**

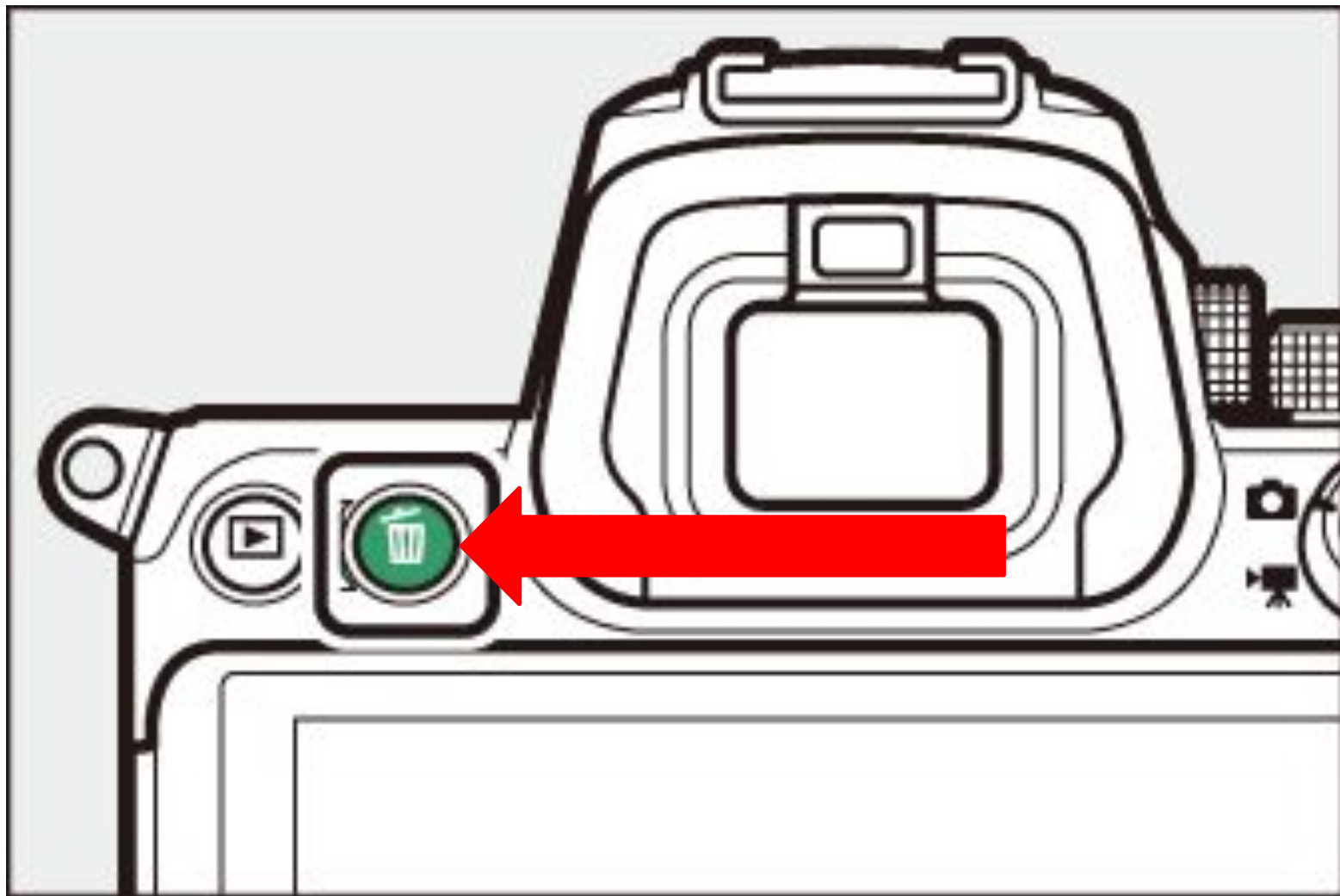


CAMERA ANATOMY REVIEW



DELETE





**To delete
your photos
press delete
button
twice (the
trash can
image).**



CAMERA ANATOMY REVIEW



**COMMAND
DIAL**



CAMERA ANATOMY REVIEW



**MEMORY
CARD**





Check to make sure you have a memory card in your camera.




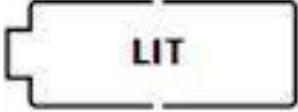

Take it out and then line up the card with the picture on the flap. DON'T FORCE IT IN!!!



CAMERA ANATOMY REVIEW

BATTERY COMPARTMENT



LCD PANEL	BATTERY LEVEL (%)	
	100 - 50	more than half full
	50 - 33	less than half
	33 - 15	less than a third
	< 15	almost empty
	camera turns off after displaying message	

Check the battery icon to make sure you have a charged battery in your camera.





Check the battery at the end of class before you turn it in. If you need to charge the battery make sure you use the right charger!



CAMERA ANATOMY REVIEW



**TRIPOD
MOUNT**



CAMERA ANATOMY REVIEW



**TRIPOD
MOUNT**



Time to turn in cameras!

Make sure you show Ms.Y that all the photos are
deleted & you can turn off the camera!



Scoring Worksheets

Make sure you write your peer's final score out of 27 on the top left hand corner of the WS



CAMERA ANATOMY REVIEW



CAMERA ANATOMY REVIEW



FOCUS RING



CAMERA ANATOMY REVIEW



ZOOM RING



CAMERA ANATOMY REVIEW

FLASH



CAMERA ANATOMY REVIEW

**HOT
SHOE**



CAMERA ANATOMY REVIEW

**MODE
DIAL**



CAMERA ANATOMY REVIEW



**SHOOTING
DRIVE**



CAMERA ANATOMY REVIEW



**INFORMATION
DISPLAY**



CAMERA ANATOMY REVIEW



POWER SWITCH

**SHUTTER
RELEASE BUTTON**



CAMERA ANATOMY REVIEW

**LENS
LOCK**



CAMERA ANATOMY REVIEW

**FLASH
BUTTON**



CAMERA ANATOMY REVIEW



**USB PORT
FOR DOWNLOADING**



CAMERA ANATOMY REVIEW

VIEWFINDER



CAMERA ANATOMY REVIEW



**LCD
SCREEN**



CAMERA ANATOMY REVIEW

**MENU /
SETTINGS**



CAMERA ANATOMY REVIEW

**PLAYBACK
BUTTON**



CAMERA ANATOMY REVIEW



**CROSS
KEYS**



CAMERA ANATOMY REVIEW



ZOOM IN/OUT
WHEN REVIEWING PHOTOS



CAMERA ANATOMY REVIEW



DELETE



CAMERA ANATOMY REVIEW



**COMMAND
DIAL**



CAMERA ANATOMY REVIEW



**MEMORY
CARD**



CAMERA ANATOMY REVIEW

BATTERY COMPARTMENT



CAMERA ANATOMY REVIEW



**TRIPOD
MOUNT**



CAMERA ANATOMY REVIEW



**TRIPOD
MOUNT**



CAMERA ANATOMY REVIEW



**LENS
RELEASE**



CAMERA ANATOMY REVIEW



**MIRROR & THE
SHUTTER CURTAIN**



LOOKING AHEAD...

- **WHAT HOMEWORK DO I HAVE?**

- Nothing!!! 😊

- **WHAT'S THE REST OF THE WEEK LOOK LIKE?**

- **FIRST BIG PHOTO ASSIGNMENT NEXT BLOCK PERIOD!!!!**

- **TICKET OUT THE DOOR: DUE TODAY**

- Your Camera Button Worksheet
- Your Camera Basics Worksheet

- **DON'T FORGET TO PUSH IN YOUR CHAIR AS YOU LEAVE PLEASE!**

- **LATE ASSIGNMENTS:**

- Scavenger Hunt Photos
- Course Descriptions



**Your camera basic
worksheets are your the
ticket out the door!**

(Don't forget to push in your chair please!)

