FOCUS

More than just paying attention in class

Bellwork

Think about the photos you've seen as well as taken. Why are they good photos? Did focus have an important part to play with making those photos successful?

Discuss with your neighbors and be prepared to share with the class.

Objective

Students will be able to:

- Understand the importance of focus in photography.
- Learn the difference between intentional and unintentional blur.
- Practice techniques to achieve sharp focus in photos.

Which is the better image?

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Importance of Focus

Directs the viewer's attention - Focus directs the viewer's attention by making certain areas of the image stand out while blurring less important parts. When a subject is in sharp focus, it naturally draws the viewer’s eyes, making it clear what the photographer wants them to notice first.

Enhances detail - Focus enhances detail by making the subject of a photo appear clear and crisp, revealing textures, colors, and fine elements that might otherwise be missed. When something is in sharp focus, it draws the viewer’s eye to the smallest features, helping them notice everything from facial expressions to intricate patterns.

Affects overall photo quality - Focus greatly affects overall photo quality by ensuring that the main subject is clear and visually engaging, which makes the image look more professional and well-composed. A photo with good focus captures details sharply, creating a strong, impactful impression on the viewer.

Types of Focus

Sharp Focus - Typically used in portraits and still life to make subjects clear and lifelike.

Intentional Blur - Used creatively*(like motion blur)*, but only when it enhances the photo's message.

Unintentional Blur

Improper Handling of Focus - Unintentional blur often happens when the camera can’t lock onto the subject, either because of quick movement or the photographer accidentally shifting focus elsewhere. It can also result from camera shake if the camera isn’t held steady or if settings like shutter speed aren’t adjusted to prevent motion blur.

Camera Shake - Unintentional blur from camera shake happens when the camera moves slightly while taking a photo, causing the image to look soft or smeared instead of sharp. This usually occurs if the camera isn’t held steady or if the shutter speed is too slow to freeze the scene, especially in low light or zoomed-in shots.

Unintentional Blur*(continued)*

Incorrect Settings - Unintentional blur can happen when the camera settings aren’t properly adjusted, like when the shutter speed is too slow to capture a moving subject clearly. Using the wrong focus mode or aperture can also make the photo look blurry, especially if the camera can’t correctly focus on the subject.

Rush/Not Paying Attention - Unintentional blur often occurs when photographers rush or don’t pay close attention to their focus, leading them to miss slight movements or camera shake. By taking an extra moment to steady the camera and double-check settings, they can avoid blur and capture a clearer, sharper image.

Focus Camera Settings

Auto Focus Areas

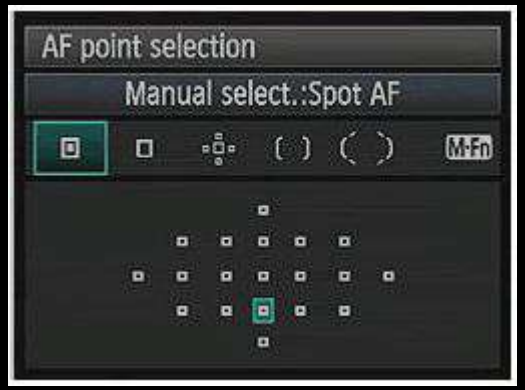
Spot AF - the camera focuses using an even smaller area than 1-point AF

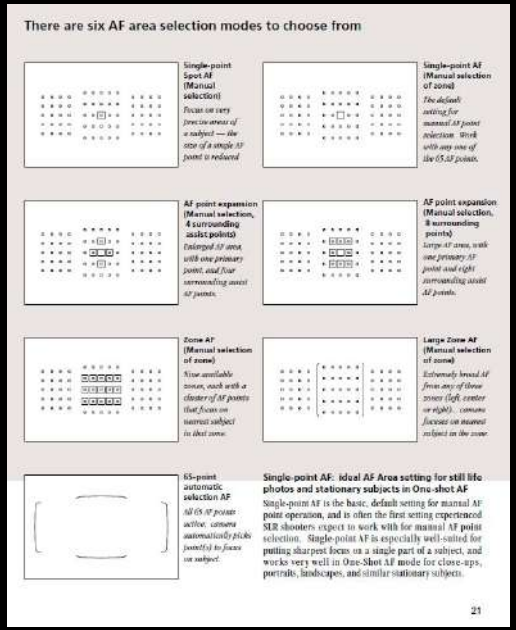
1-point AF - the camera focuses using a single AF point

Expand AF area or **Expand AF area(around)** - there are two options here. With either, the camera focuses using a single AF point, but if it is unsure then it uses another AF point to assist, or may switch to that point instead – either the next point horizontally and vertically, or the next point diagonally. These are effective with moving subjects, which are difficult to track with 1-point AF

Flexible Zone AF - uses auto selection AF within a larger area, optionally focusing on the nearest subject or using various criteria such as faces, subject motion and subject distance.

Whole Area AF - uses a much wider area for autofocus (up to 100% horizontal and 100% vertical coverage, depending on the lens). As well as using subject distance and face tracking, the latest cameras offer animal and vehicle tracking. On some cameras, this appears as a separate Subject tracking menu option.





Auto Focus Operation

One Shot - For still subjects.

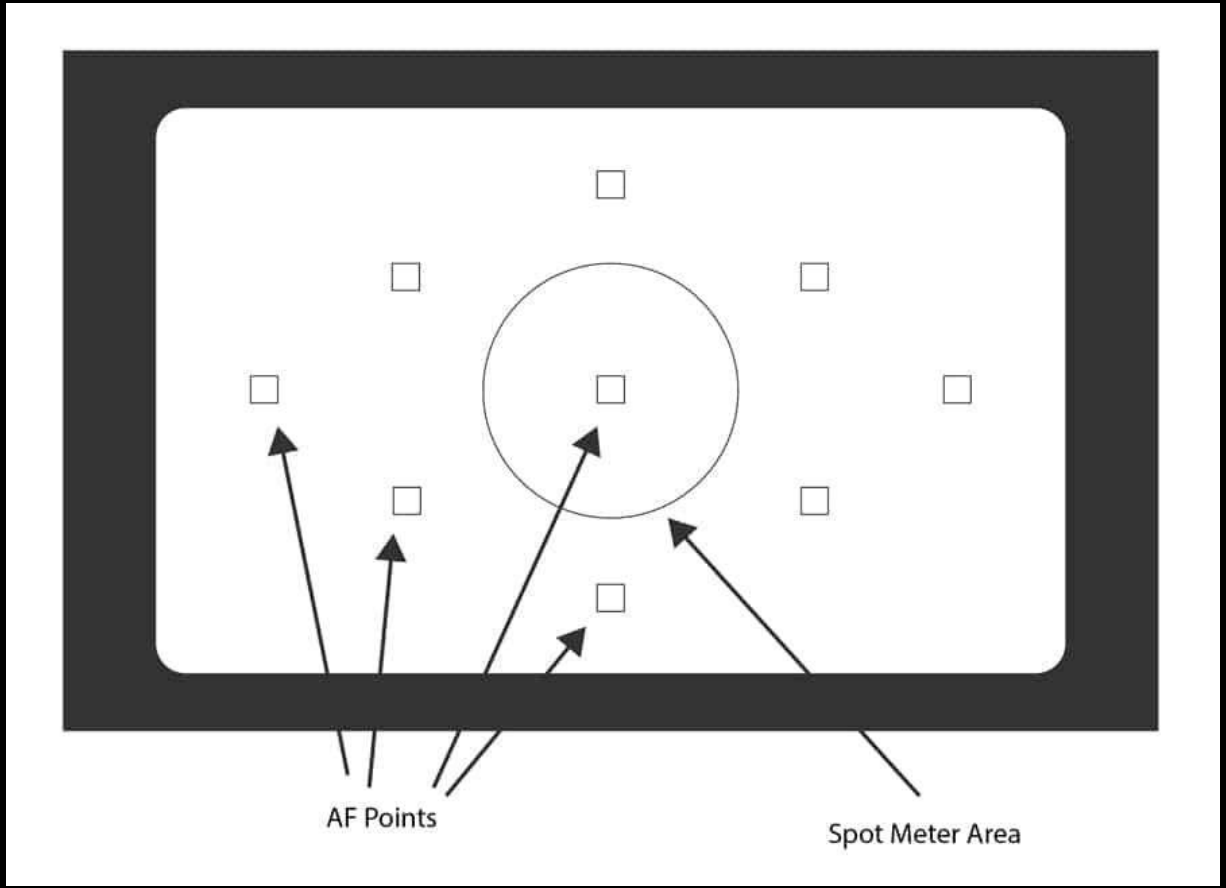
- For portraits, events that there's not a lot of quick motion, etc.

Servo - For moving subjects.

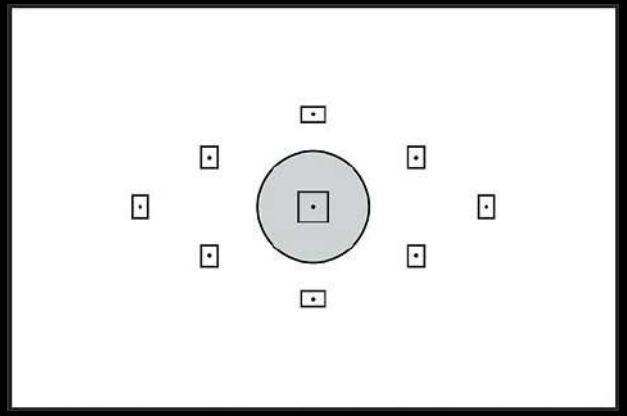
- For sports, some kinds of events with quick motion, etc.

AI Focus - the camera chooses which of these two to use, according to the subject movement it detects. *On the newer cameras.*

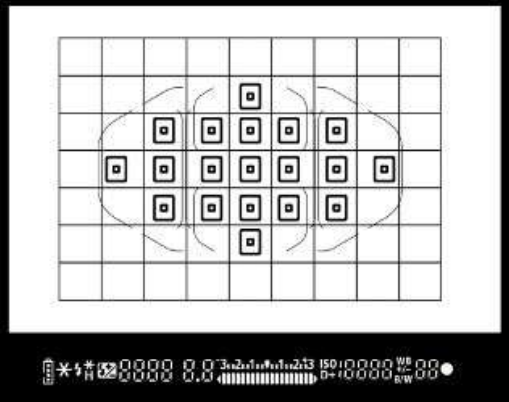
Auto Focus Points



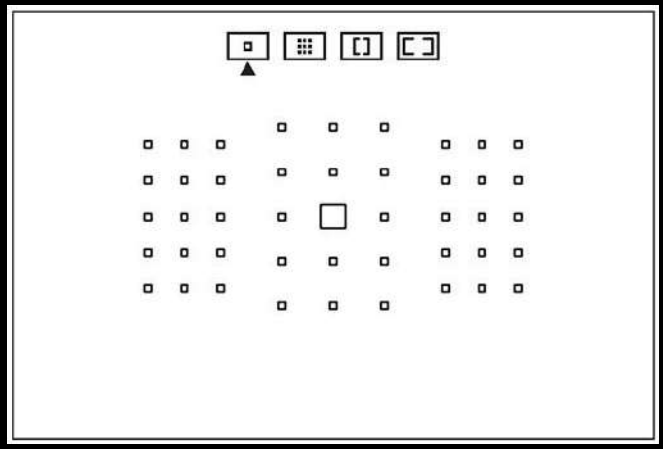
Auto Focus Points



T3i - 9 AF points



T6 - 19 AF points



80D & 6D MK II - 45 AF points

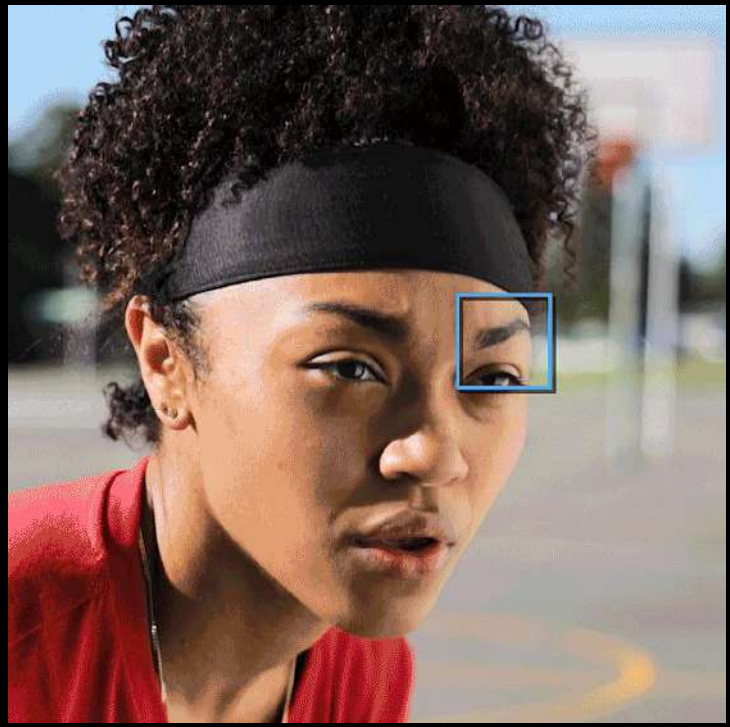
Mirrorless Cameras - The whole viewable image can be a AF point.

People Detect & Eye Detect

The newer Mirrorless cameras have autofocus settings to detect **People** and even more, **Eye Detect**ion.

The great thing about the Eye Detection is that it will detect the eye and focus specifically on that, which is great when taking portraits. You should always focus on the eyes when doing portrait photography.

When taking portraits in the studio and using a mirrorless camera, always use Eye Detect.



Shutter Release Button

Before You **CLICK**

To use autofocus before taking a picture, gently press the **shutter release button** halfway down.

This activates the camera's autofocus system, which will adjust the lens to focus on the subject.

Once the camera has focused, you will hear a *beep* and then you can press the button all the way down to take the picture.

Holding the shutter halfway allows the camera to lock in focus without taking the photo right away.

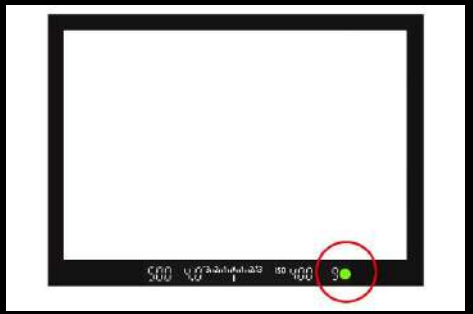
If you're using the **One Shot** mode, you can then move your camera to get the composition you are wanting before you take the picture.

Focus Confirmation

On our older cameras, you will see the focus points turn **RED** when the focus has been set.

You will see in the viewfinder the green dot to show that focus has been set.

And finally, you will hear a beep to signal that your focus has been set.



Settings and Equipment

First and foremost!

To use autofocus, set your lens to **AF***(auto focus)*.

Your cameras are also used by Film students, so the cameras might be set to **MF***(manual focus)*.

Aperture and Focus

As we've discussed in our **Aperture** lesson, aperture controls how much light enters the camera and affects the depth of field, which is the area of the photo that stays in focus.

A wide aperture*(low f-stop)* creates a shallow depth of field, meaning only a small part of the image is in sharp focus while the background and foreground blur.

A narrow aperture*(high f-stop)* increases the depth of field, making more of the image, from front to back, appear in focus.

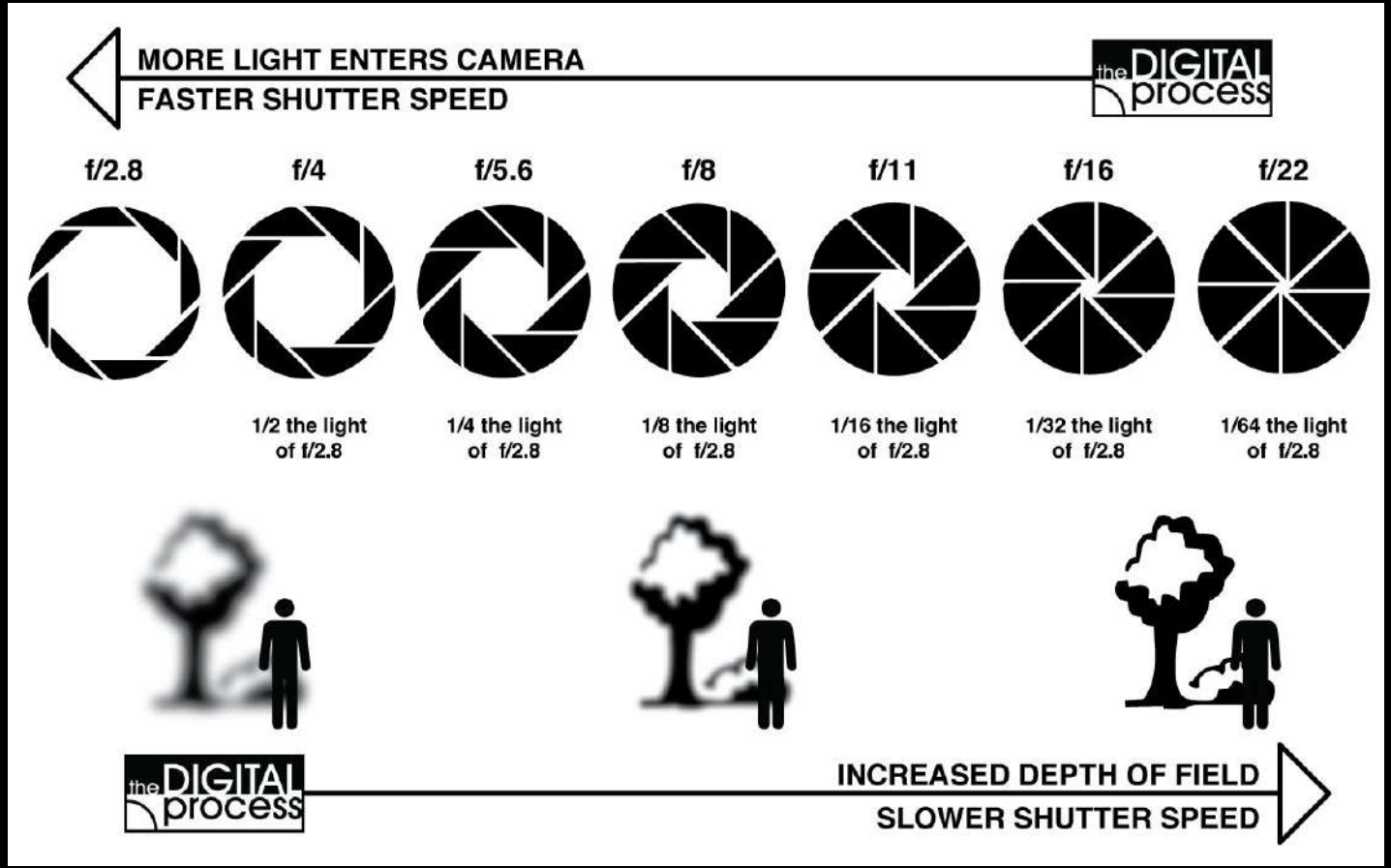
By adjusting the aperture, you can control how much of your photo is sharp and how much is out of focus.

Prime Lenses and Focus

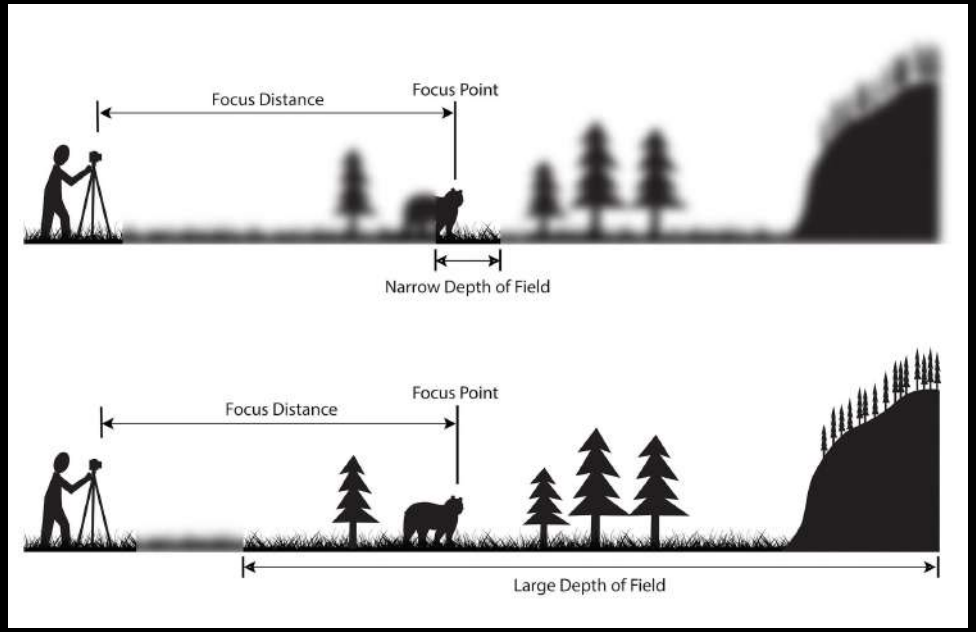
With prime lenses, you need to be extra careful about keeping photos in focus because they have a fixed focal length, meaning you can't zoom in or out to adjust the composition.

This means you must position yourself or adjust the focus manually to ensure the subject is sharp, and even small movements*(either by you as the photographer or the subject)* can make the difference between a crisp image and one that's blurry.

Depth of Field and Focus



Depth of Field and Focus



Depending on what you are photographing, you may want to consider a more narrow depth of field to get a great field of focus*(like group photos, etc).*

Shutter Speed and Focus

As we've talked about in the **Shutter Speed** lesson, shutter speed controls how long the camera's sensor is exposed to light, and it plays a key role in whether a photo is in focus or blurry.

A **fast** shutter speed freezes motion, helping to capture sharp, clear images of moving subjects.

A **slow** shutter speed can cause motion blur, making the subject appear out of focus as they move during the exposure.

By adjusting the shutter speed, you can control how much motion is captured and whether the image remains crisp or intentionally blurred.

Tripods and Focus

A **tripod** is essential for slow shutter speed photography because it stabilizes the camera and prevents any unwanted movement or shake while the shutter is open.

When the shutter is open for a **longer** period, even small hand movements can cause the photo to become blurry, so a tripod helps ensure that the camera stays completely still and the image stays in focus.

Typically, anything slower than **1/125** can potentially start showing camera shake, even from your hands having a slight shake to them.

Long Lenses and Focus

With telephoto lenses, you need to be careful about keeping photos in focus because they have a narrower field of view, meaning even small movements can cause the subject to go out of focus.

Since long lenses often magnify the subject, any shake or slight misalignment is more noticeable, so it’s important to keep the camera steady or use a tripod to prevent blur.

The rule of thumb is, whatever your focal length is when using long lenses, your shutter speed should either match or be quicker than the focal length.

- **Example** - If you’re using a telephoto lens at 300mm, your shutter speed should either match or be quicker 1/320. If you’re at 400mm, it should be at or quicker than 1/400, etc.

Tip for using Telephoto Lenses

If you're using a telephoto lens, zoom in as close as possible to the area you want to focus*(eyes if doing a portrait, etc)*, get the focus, then zoom out and compose your shot before you take the photo. This assists with getting the best possible focus.

Expectations on Focus in Class

In this Classroom

In this classroom, for all assignments, Nistas expects photos to be in focus.

One of the reasons why any assignment is, by default, a minimum of **30** photo contact sheet is for you to review your images while taking photos and correct for any issues with exposure, **focus**, composition, angles, etc.

There should never be a point where you are turning in photos where the subject is blurry. There are exceptions to this, but those exceptions should be intentional.

If you ever have issues, ask Nistas for help, that’s what he’s there for.

Conclusion

What challenges do you face in achieving sharp focus and how can you overcome those challenges?

Why is focus important? How did different settings affect the focus? What do you plan to do differently in future shoots to make sure your shots are intentionally in focus?

Discuss with your neighbors and be prepared to share with the class.