Zooming In

In this lesson, we'll be taking a look at
Zooming In.

Estimated Completion Time: **11 minutes.**

Zooming In

Telephoto and Zoom - these terms are these days interchangeable. It refers to the ability of a camera to zoom in from a distance. Traditionally, and on DSLR cameras, it is measured in mms - a lens, for example, may have the specifications of 28mm to 300mm. The wider the range, the more useful the lens/camera can be.

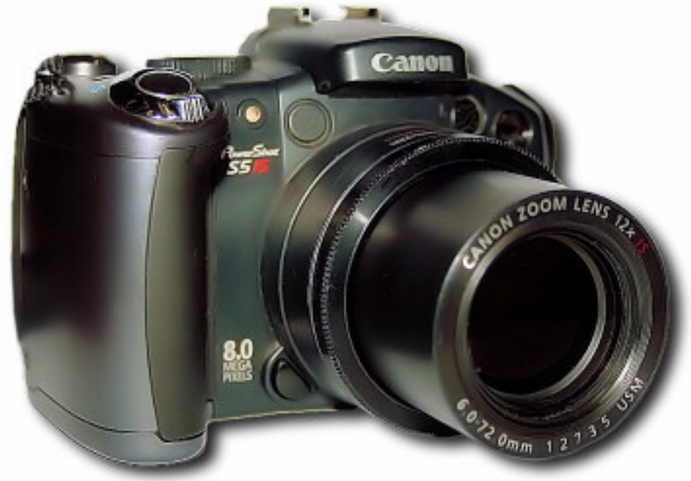
In compact cameras, zoom ability is generally referred to as 2x or 3x, or 10x, or 20x. This does not relate directly to the mm settings, but still gives you a good idea of how far you'll be able to zoom in.

This shot was taken at 300mm - around 10x in the way a compact camera would express it.

Zooming In

When using a compact camera, setting the zoom is normally a switch or button on the camera itself - moving from a wide angle to telephoto or zoom setting. Quite often, the camera will display in the viewfinder the exact zoom setting currently in use.

I would recommend at least 12x optical zoom when looking at compact cameras. Some go much higher than this - 24x, or even higher.

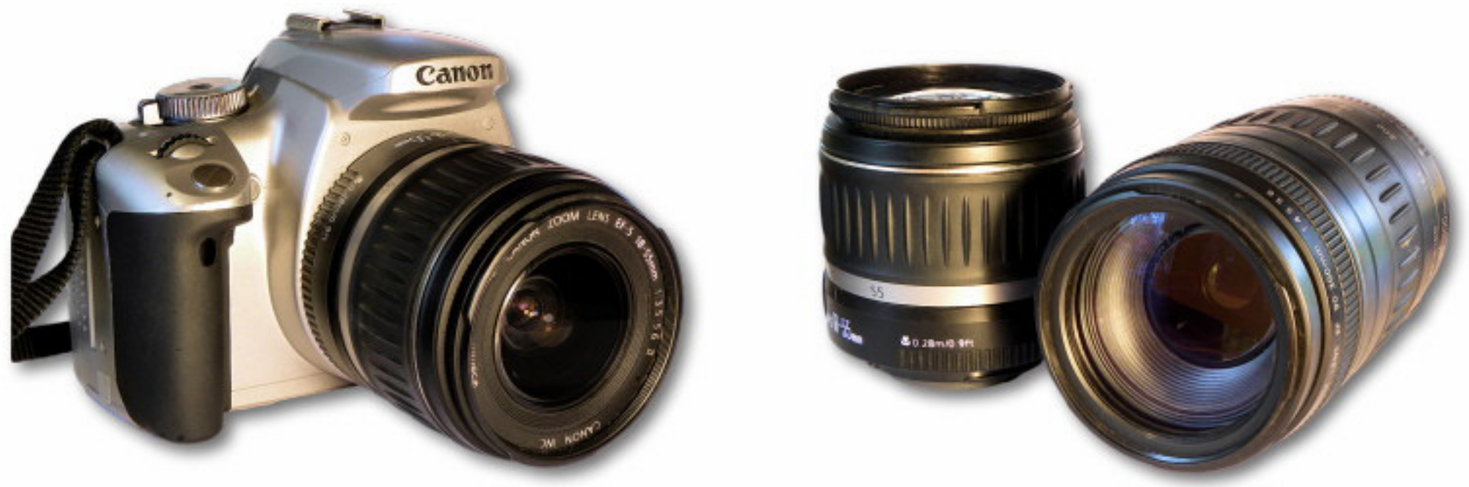


A large zoom compact camera. These are very flexible and handy, in that no extra lenses are required when you want to zoom in.

Zooming In

With DSLR cameras, on the other hand, you can swap and changes lenses whenever you like. You can put on macro, or semi-zoom, or wide angle, or super zoom lenses. You can move from a cheap lens to a higher quality lens when your budget allows.

You can even update to a new camera model and keep your old lenses (assuming the camera brand is the same!)



Interchangeable lenses give you a much wider range of potential lenses and photographs - but you do have to carry these lenses around. They will give you better photos than compact cameras.

Zooming In

When you can't get close, then a zoom lens is fantastic. I consider it one of the main things to look at when getting a new camera.

Remember - ignore *digital zoom*, and never use it. Only consider *optical zoom* ability when looking at camera settings.

This shot was taken at 300mm - around 10x in the way a compact camera would express it.

Zooming In

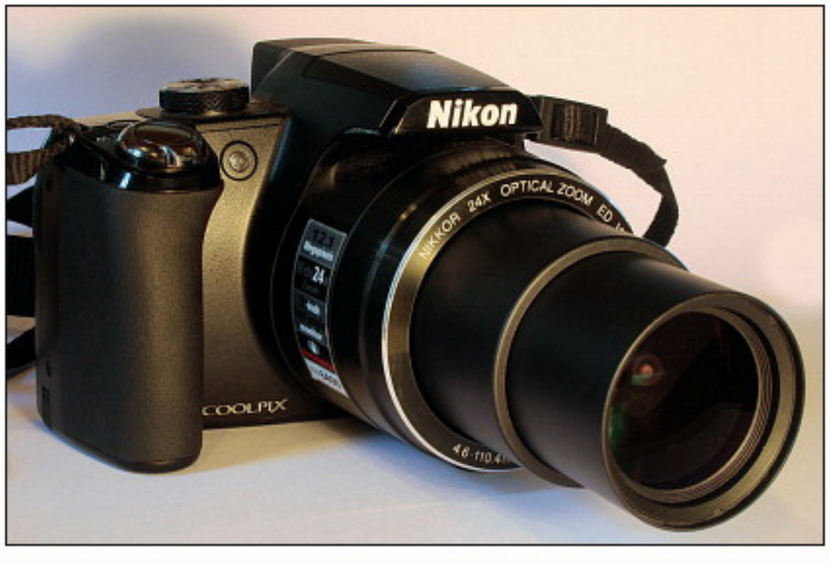
Here we took two shots with a compact camera. Both were taken on a tripod, pointing at the exact same scene.
On the left, we used 1x zoom, equivalent to 26mm. On the right, we used 24x zoom, equivalent to 624mm.

Zooming In

On the previous step, we looked at a 24x zoom compact camera, which ranges from the equivalent of 26mm to 624mm in zoom capability.

To get the same sort of capability in a DSLR camera would require either a very large lens, or more likely, a range of lenses.

Yes, DSLRs can give you better quality shots. But - a large zoom compact camera is *very* handy.



Zooming In

This one is slightly different. Here we took two shots with a compact camera. Both were taken on a tripod, pointing at the exact same scene.

On the left, we used 24x zoom, equivalent to 624mm. On the top, we used 4x digital zoom on top of the 624mm zoom. Much closer, but the digital zoom quality is so poor as to make the shot unusable.

Zooming In

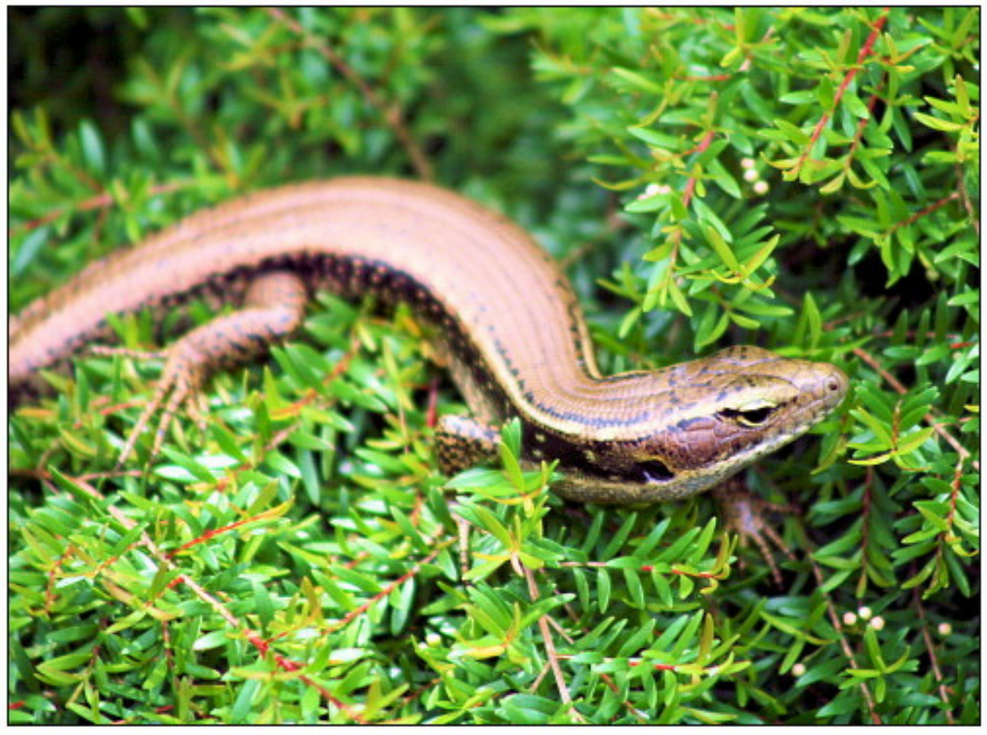
There are several things to be aware of when using zoom.

Movement. When you zoom in, any movement of the camera or the subject is magnified. Extreme zooming in requires a tripod for best results.

Blurry images are always something to watch out for when using a zoom lens.

Zooming In

In fact, there is a simple rule you can apply when zooming in with a handheld camera - at least a DSLR camera. Whatever mm setting you zoom in to, at least match that with the shutter speed. So, if you have the camera set to 400mm, you should have a shutter speed of at least 1/400 of a second.



Blurry images are always something to watch out for when using a zoom lens.

Zooming In

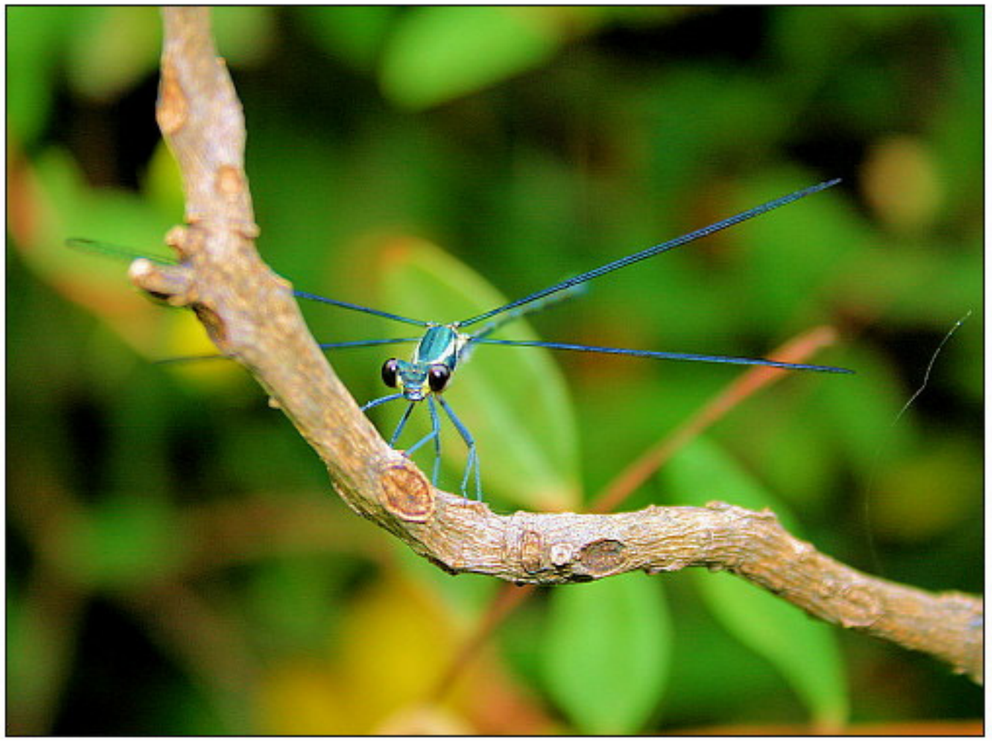
If your camera has ***image stabilization,*** and you don't have a tripod - ensure this setting is on (many cameras recommend this setting *NOT* be on if you *ARE* using a tripod).

*Use **Image Stabilization** if you have it.*

Zooming In

Small depth of field. The more you zoom in, the lower the depth of field will be. Essentially this means a smaller range of the subject(s) will be in focus.

Quite often this will create a nice effect - but it may also mean that what you would like to be in focus is in fact not in focus.



Zooming In

Flash. You *will* be able to use a flash when zooming in, as long as you remember what the effective range of the flash is. A flash is only designed for reasonably close subjects - and if you are zooming in from a distance, the flash is simply not going to reach the subject.

This shot was taken at full zoom for that camera - which put it out of flash range. A shame, because this shot could perhaps have used some fill in light.

Zooming In

Reduced Sense of Depth. Zoom lenses or settings tend to reduce the distance between objects. In other words, the photo appears much flatter, with less depth, than an equivalent photo taken without zooming in.

On the top, we've zoomed in. Compare this with the non zoomed version on the bottom.

Zooming In

Always move in if you can. Most cameras, or lenses, never tend to be as sharp at the end of their focal range. In other words, the more you zoom in, the less sharp your image is going to be. Additionally, because the subject is further away, the less light from the subject is going to reach the camera - and you or the camera may compensate by increasing ISO, which in turn, increases noise.

So, bottom line - if you can move closer to get the same shot, do it.

Zooming In

On the top, we used a compact camera with 24x zoom. We used digital zoom to get a little closer so that we could fill the frame.

*On the right, we used a 500mm zoom lens on a DSLR. This is a **big** zoom lens. And this is as close as we could get.*

Zooming In

You've now completed this lesson.

In this lesson, we took a look at
Zooming In.