

There is often much confusion among photographers over the terms close up, macro and micro photography and how they differ. Macro and micro usually refers to the same thing. To differentiate their lenses from other brands, Nikon uses the term “micro” for their range of macro lenses. Canon and other brands just calls them macro lenses.

What is close up photography?

Close up photography is photographing any subject such as flowers or insects at a short distance so the subject you are photographing fills the frame. It's photographing subjects close up. This can be achievable with any lens, especially if it has close focusing capabilities.

Macro photography is in essence close up photography as well. But it is “extreme” close up and approaches 1:1 and even larger than life size on your camera frame. 1:1 means the size of your subject is equal to the same size on your sensor. 1:2 means your subject will reproduce half as large on your sensor while 2:1 means your subject is twice as large on your sensor. With a “macro” lens, you will be able to move more easily from one size to another.

Capturing the finest details is one of the main differences between macro photography and close up photography.

What is needed for close up photography?

Many lenses are usable for closeup photography. Just look at your lens and check to see if the closest focusing distance is around 24” or less, the smaller the number the closer you can shoot. The numbers are usually marked in feet and meters. 1 meter is equal to 39.34 inches (just remember “40”) so .5 meter is approximately 20” and this may be good enough for your immediate shooting needs. Usually a telephoto lens will have its closest focusing distance of several meters while a wide angle lens may focus to less than 12.” (Demo)

If you cannot focus close enough for your subject, the easiest and least expensive way is to use “Close Up Filters.” They usually come in sets of 3 or 4 and have varying strengths: +1, +2, +4 and sometimes +10. Hey, where's the +3 filter? Just combine the +1 and +2 filters. Likewise you can combine the filters in any combination but too many may result in a degraded image. The filters are threaded in front and back for easy attachment to your camera lens and each other. However, they are dedicated and you must buy the set or individual filter in specific diameters for your lens. If you only have one lens or your lenses all have the same diameter, then no problem. However, if you have lenses of varying diameter then you can use step up adapter rings for each lens and buy only one filter with the largest diameter for use on all of the other lenses. (Demo)

“Extension Tubes” are used to allow your lens to focus closer than it normally would. In place of the simple close up filters, these tubes provide extra physical length to move the glass optics of your lens closer to your subject and allow close focusing. They come in individual lengths, e.g.13mm, 21mm and 31mm and similar lengths depending on the manufacturer. Again they can be used in combination and are auto-focusing but due to their complexity are more expensive but they are are a step up in convenience.

You may come across a bellows unit for your camera. This is a light-tight “bag” which looks like the old time view cameras that allows you to continuous focus over a longer distance than individual extension rings. A little more expensive than extension tubes and will probably not allow auto-focusing.

The best solution is a dedicated macro lens which is especially optically corrected and has lens extension to allow 1:1 and larger photography. The prime lenses come in a variety of focal lengths such as 35mm, 60mm, 90 or 100mm, etc and depending upon your needs range from wide angle to about 135mm (full frame format). If you shoot and need some room for additional lighting then a longer focal length is preferable. Of course, this is the most expensive avenue for macro photography.

Generally, closeup photography takes place out of doors where there's plenty of light which allows you to use your camera's "sweet spot:" the sharpest aperture and a shutter speed fast enough to arrest any vibration or movement as well as a noise-free ISO below 400. If shooting conditions change such as reduced daylight and/or your subject becomes shaded by clouds or there's windy conditions, you might have to raise the ISO, open the lens' aperture or use a slower shutter speed. Perhaps several of these to keep as close to using your camera's "sweet spot" settings. A partial solution is to brace the camera against a pole or fence, or to use a tripod. Regardless, I always suggest taking a sequence of shots with some slight variation such as a little or more of the background, minor rotation, minor exposure adjustment, etc to get that critical shot with the best focus, depth of field and no movement of the subject. Problem exposures are easily deleted!

Very often your subject is side or backlighted. Have you ever used that (sometimes) handy built-in flash to help lighten any shadows or backlighted situations? At your next shooting session, take a close-up shot normally and then one with the built-in flash (you may have to take bracket and reduce the exposure). See a difference? The flash shot's shadows will be subtly brightened. There are a host of accessories that allow you to modify your built-in flash and even more for any speedlite flash units such as:



Various camera and speedlite accessories:
 Upper left: Softbox
 Lower left: Ringlight (Flash or LED's)
 Middle & Upper right: Reflectors & Light Modifiers
 Lower right: "Puffer"

Additional Speedlite Modifiers



One of my favorite lighting modifier is the “Puffer,” made by Gary Fong, which I use quite often with other types of photography besides close-up (portraits and other situations where I need to brighten the shadows without lugging my flash unit. It’s a crescent-shaped honey-combed piece of white translucent plastic which is held in front of the camera’s built-in flash via the hotshoe. It diffuses the light and spreads it out more evenly to light your subject. Personally, I think it’s overpriced at \$24 and there are copies of it on Amazon or eBay for less than \$5 which works just as well. Highly recommended. There are countless accessories that try to provide similar and better effects to improve the results from your speedlite. Much trial and error is needed to determine if these accessories provide the effect(s) you like. Typical accessories shown above.

I also use a small handheld low powered (cheap) unit with a tethered cord to direct the light where I need it:



A Light Tent is used for shooting products, jewelry, coins, insects or anything small and used quite often for catalogues and websites such as Amazon and eBay.



Another item that can be used to illuminate translucent material such as lace or other cloth, flowers and colored gels is an old-time lightbox that we used to view 35mm color slides “back in the day.”

Images are everywhere and this short introduction, hopefully, will open your eyes and see the many possibilities available with close-up and macro photography. Google is your friend! Use it to delve further into this fascinating world. Don’t forget YouTube for instructional videos and links.