SLR cameras have been around for decades before the new digital camera revolution. The acronym stands for Single Lens Reflex and digital SLRs are usually referred to as DSLRs. This article will discuss what that particular acronym means, but for practical use when buying or using a camera, it means that when looking through the view finder at a scene, the photographer is actually looking through the lens via a series of at least two mirrors.

Single means that there is a single path the image takes through the camera – and that is through the lens. In the days before SLR cameras and in many point and shoot cameras, there are two paths for the image to pass through the camera – a dual path. One view is through the viewfinder which is simply an empty tube with glass on both ends that points in the same direction as the lens. The other path is through the lens where the image is recorded on the film or digital sensor.

There are two reasons that a camera with a dual rather than a single path is less desirable. If the camera or lens has an optical zoom capability, the photographer won’t be able to see the scene as the film or sensor sees it. The camera may utilize a digital zoom to emulate it, but it won’t be exactly the same. Secondly, even though these two paths are parallel and very close to each other, they are still separate. This means the perspective of what is seen through the viewfinder will not be exactly the same as what is captured on the film or memory card. With a visual media such as photography, what you see should very much be what you get.

The lens in single lens reflex, as mentioned above, means that the photographer is looking through the lens when composing the image. This is possible via two mirrors in the camera body. One is right in front of the viewfinder and reflects downward toward a second mirror in front of the film or digital sensor which reflects out through the lens. By virtue of this mechanism, what the photographer sees through the viewfinder is exactly what the film or sensor will see when the image is exposed.

Reflex refers to the camera’s reflex when the photographer presses the shutter. At that point, many things happen in a very short period of time. First, the bottom mirror in front of the film or digital sensor pops up out of the way. Second the shutter, which is like a pair of pocket doors, slide back out of the way, exposing the film or sensor to the image coming through the lens. The shutter stays open for the amount of time set by the photographer (or the camera if it is shot in one of the auto-modes) and then closes. This is followed by the mirror popping back down. This all usually happens in a fraction of a second, although exposures can be as long as is required by the desired image.

Separate from the SLR functionality, but true in almost all SLR cameras, is the ability to change lenses. This is where an SLR is truly superior. By changing lenses, the photographer can get a wide variety of focal lengths and other features without ever changing the camera. In addition, within a few constraints, those same lenses could be used on another, better camera if the photographer decides to upgrade.

When looking at buying cameras and lenses separately, always spend the extra money on the lenses. The extra bells and whistles on a more expensive camera is not going to make one a better photographer, but cutting corners on lenses can limit the quality one is able to achieve regardless of the camera.

Anyone who has mastered a point and shoot camera and has become to see the limits one of these models can achieve may want to consider investing the money (and time to master) an SLR camera.