Depth of Field

When a subject is brought into sharp and accurate focus, the lens generates a zone extending in front of and behind the subject plane (parallel to the focal plane) within which all objects will register sharply and clearly on the film. This zone is called the "depth of field."

Sometimes you will want everything in the foreground and background in focus. Sometimes you will want a subject in the foreground to be in focus while keeping a busy background out of focus.

f/stops are the main factor that controls this effect, with blurring most apparent at large apertures. Small apertures keep more of the frame in focus than larger apertures. For example, f/16 will keep most if not all of the image in focus. f/2 will keep just the subject plane in focus, leaving the rest of the image blurred.

Depth-of-field tables help calculate this effect, but they vary according to the specific focal length of a lens (the shorter the focal length, the more depth of field; the longer the focal length, the shallower the depth of field).

As a simple guide, remember that the larger the aperture and the closer the focal distance, the shallower the depth of field. Stopping down to smaller apertures increases the depth of field (or focusing tolerance). Depth of field is greater beyond the point of focus than in front.