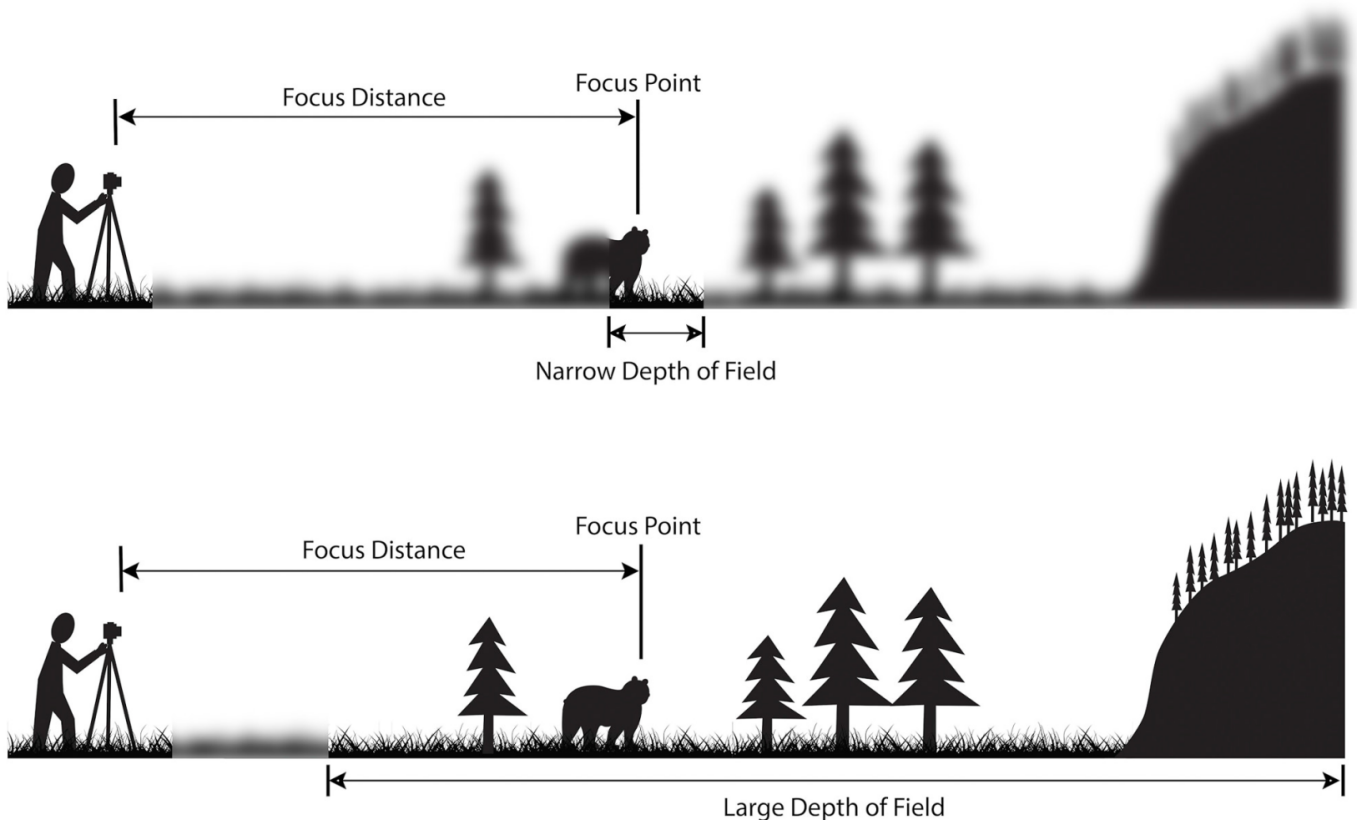


Chapter 8: Depth of Field

The **depth of field** is the distance between the nearest and furthest in-focus objects in an image. A narrow depth of field will have a very narrow area in which objects will be in focus. A wide (or large) depth of field will put most elements of the image in focus.



Depth of field is influenced by several **camera settings** including **aperture** (f-stop) and the **lens focal length**.

Lower f-stop settings (f/1.2 - f/2.8) have **shallow depths of field**.

Higher f-stop settings (f/11 - f/32) have **wider depths of field**.

Longer focal lengths (like the **105mm** setting on the Canon EF 24-105mm lens) will have a **shallow depth of field**.

Shorter focal lengths (like the **24mm** setting on the Canon EF 24-105mm lens) will have a **wider depth of field**.

Turning the **focus ring** on the lens will adjust the position of the in-focus area, or **focal point**.



Shallow Depth of Field
Aperture = f/1.4. DOF = 0.8 cm



Medium Depth of Field
Aperture = f/4.0. DOF = 2.2 cm



Wide Depth of Field
Aperture = f/22. DOF = 12.4 cm

The camera's **distance to the subject** can also influence **depth of field**.

The **depth of field** will be **wider** when the camera is focused on **more distant subjects**.

The **depth of field** will be **shallower** when the camera is focused on **closer subjects**.

Three ways to affect depth of field

How aperture, focus distance and focal length change what will appear sharp in a scene

1 Changing the aperture

The wider the aperture you use, the less depth of field you capture. This isn't always a disadvantage, as it enables you to throw distracting elements out of focus.

Aperture: f/8
Focused at 10m with zoom setting of 70mm.

Aperture: f/22
Focused at 10m with zoom setting of 70mm.

Aperture: f/2.8
Focused at 10m with zoom setting of 70mm.

Lens focused on subject at 1m
Camera set to an aperture of f/8 with a lens setting of 70mm.

Lens focused on subject at 5m
Camera set to an aperture of f/8 with a lens setting of 70mm.

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Lens focused on subject at 20m
Camera set to an aperture of f/8 with a lens setting of 70mm.

2 Changing the focus distance

The closer you are to the subject you're focusing on, the less depth of field you'll capture on camera.

3 Changing the focal length

The zoom setting, or lens, that you use affects how much of the image looks sharp. The wider the lens (the shorter the focal length) the more depth of field you capture.

Focal length: 28mm
Focused at 10m with aperture set at f/8.

Focal length: 70mm
Focused at 10m with aperture set at f/8.

Focal length: 200mm
Focused at 10m with aperture set at f/8.

Telephoto effect
The more you zoom in on your subjects, the less depth of field you'll capture on camera.

