



Depth of Field and Selective Focus

**What is Depth of Field?**

# What is Depth of Field?

The area of the image that is in focus.

# What is Depth of Field?

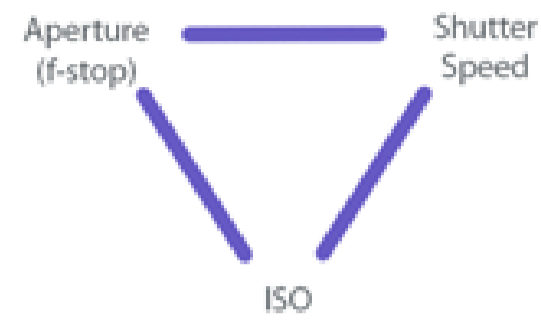
The area of the image that is in focus.

The greater the area in focus, the greater the depth of field.

Three things affect depth of field:

1. Aperture/F-Stop
2. Focal Length of Lens
3. Proximity to Subject

### 3 Elements of Exposure



# Aperture and Depth of Field

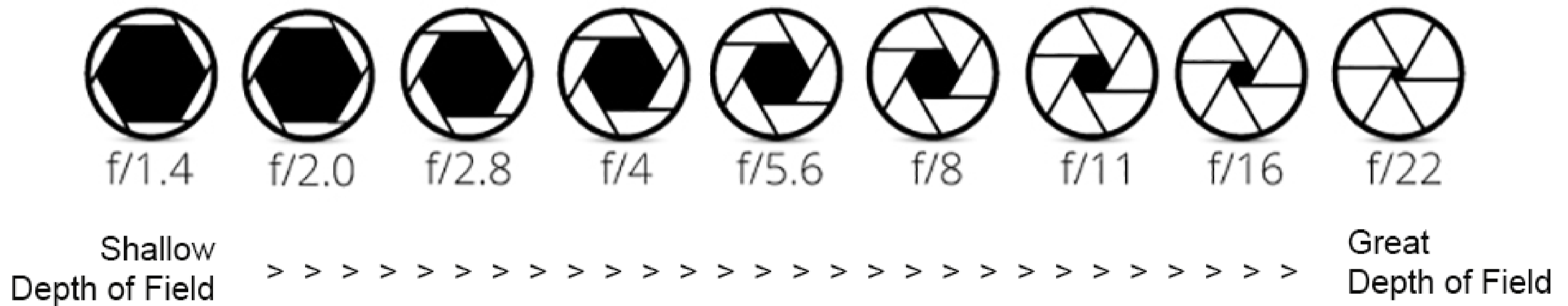


Large diameter  
Low f-stop (<math>f5.6</math>)  
Less depth of field



Small diameter  
High f-stop (<math>f11+</math>)  
Greater depth of field

# Aperture



Lower f-stop means wider aperture and more light,  
but less depth of field

Higher f-stop means smaller aperture and less light,  
but greater depth of field



F4.0





F4.0



F11



F4.0



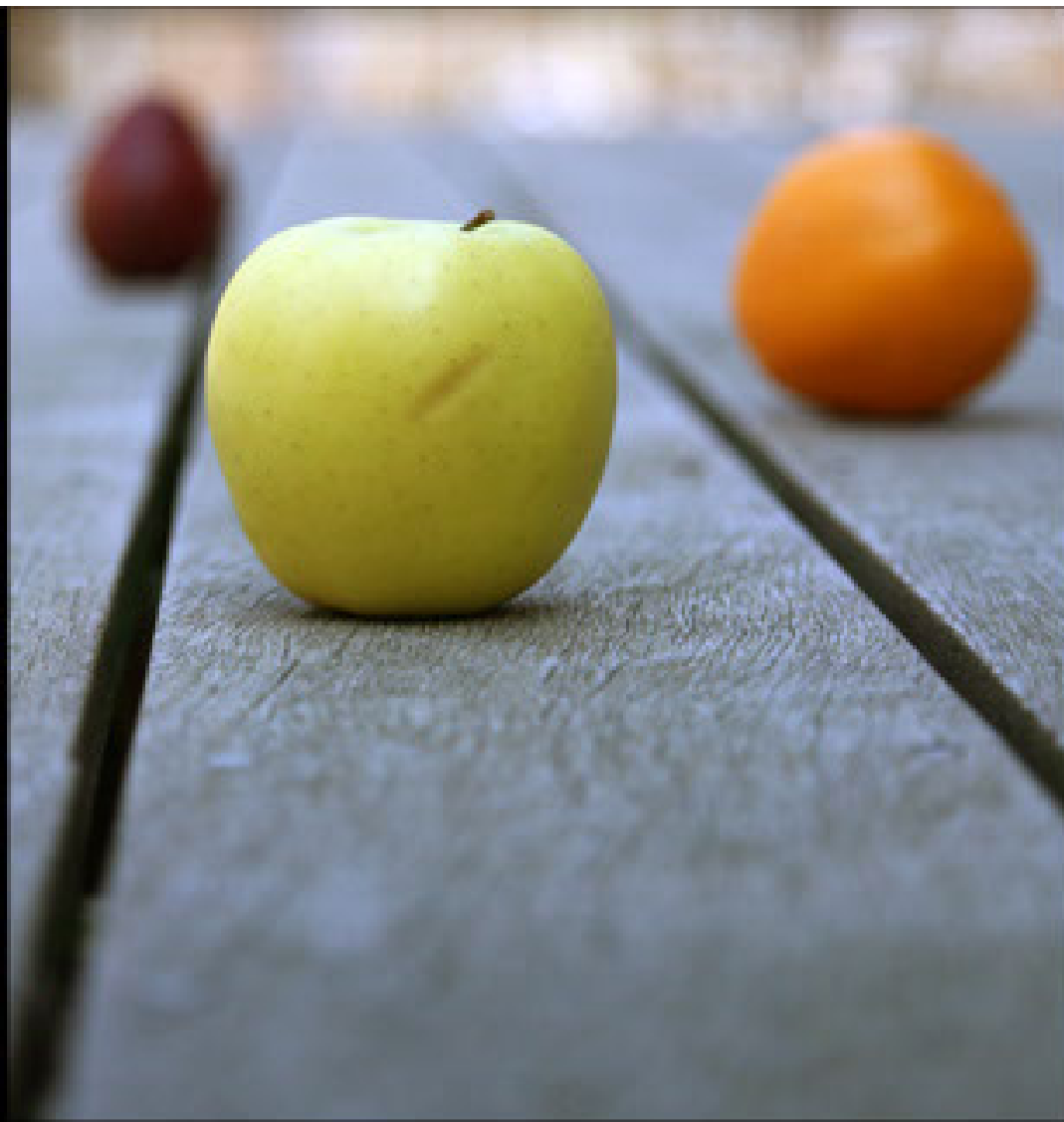
F11



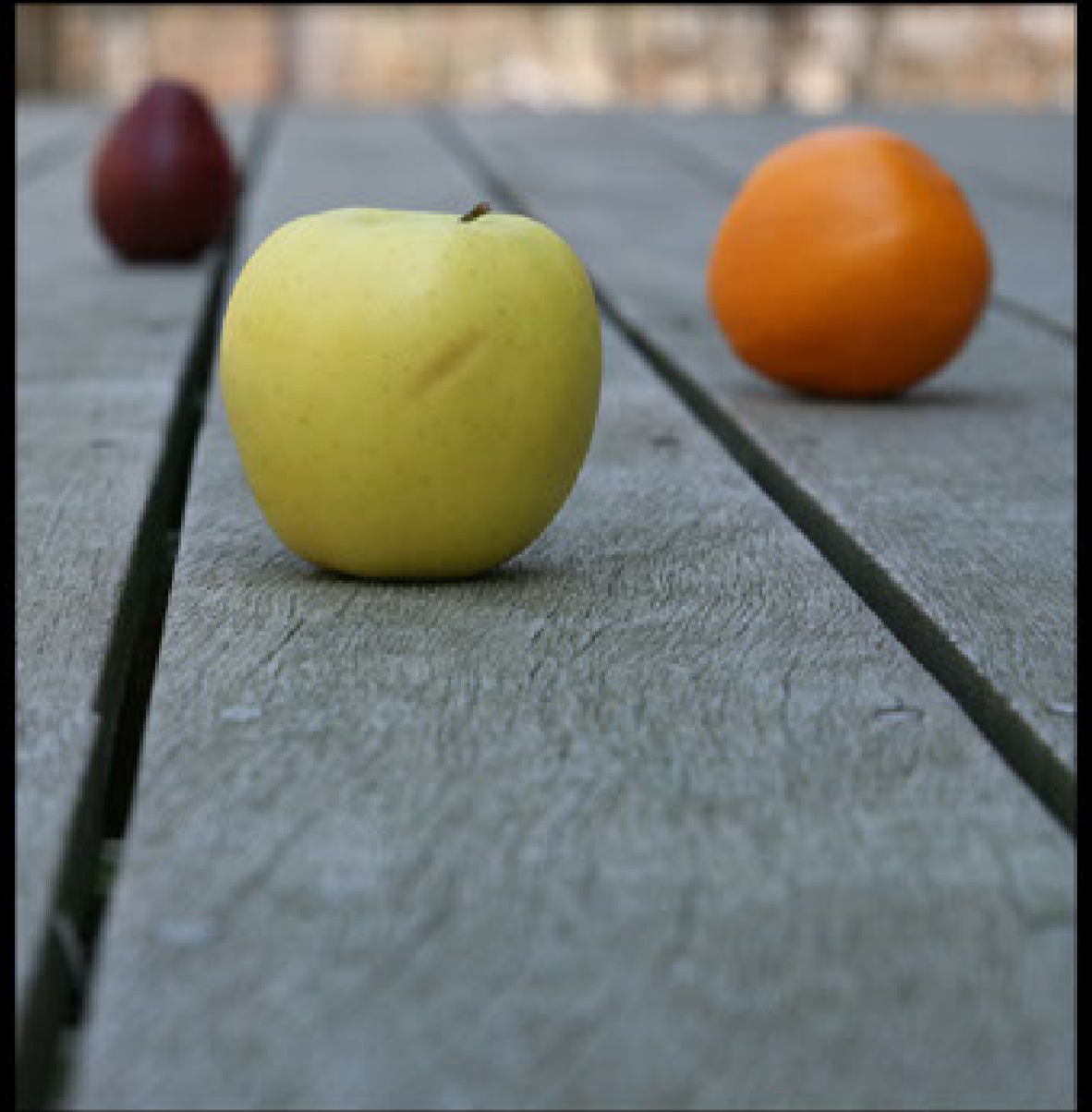
F20



F4



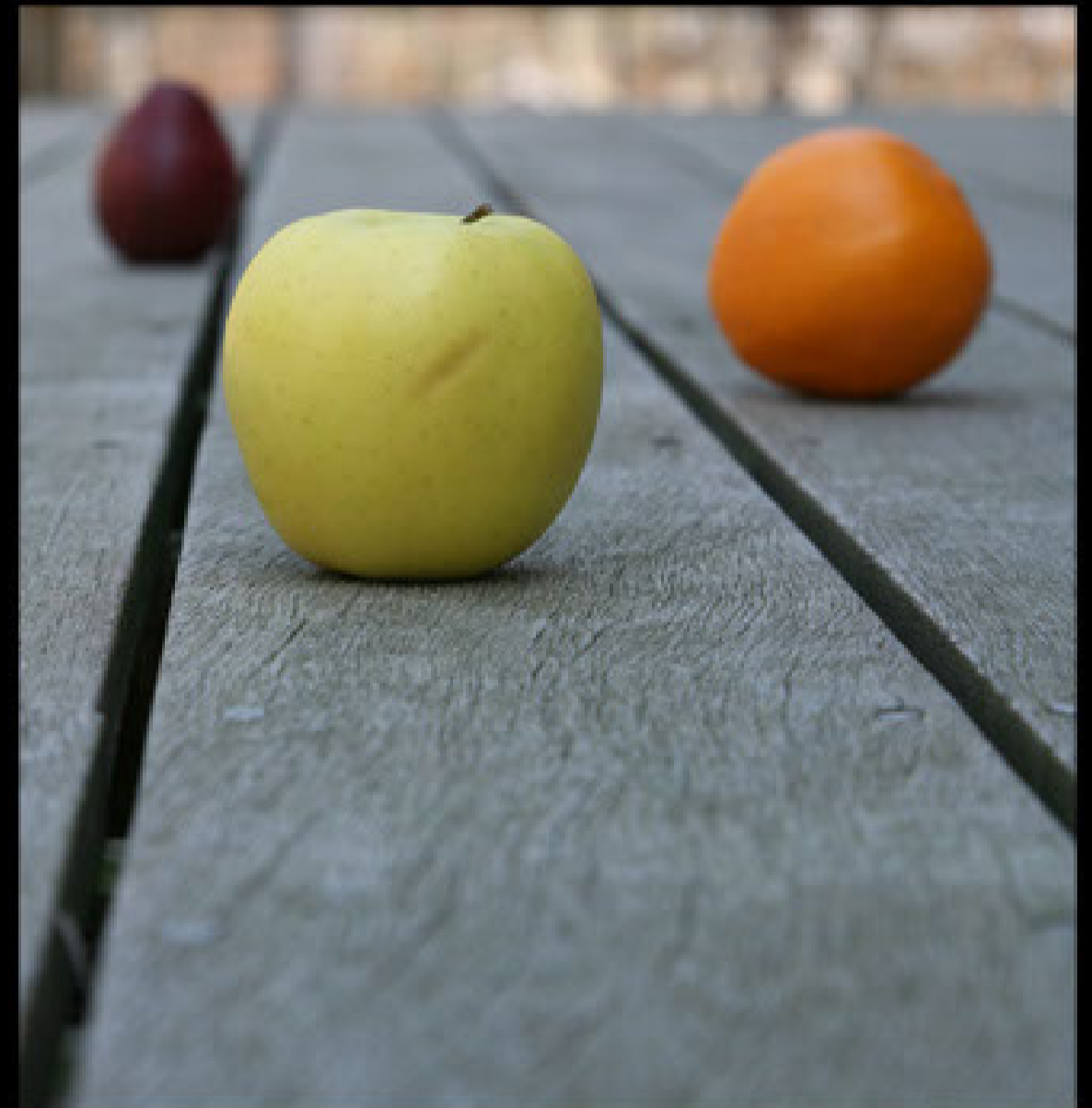
F4



F8



F4



F8



F20



35mm at f22

The length of the lens  
also affects depth of field.

A shorter lens will have  
greater depth of field than  
a longer lens.



35mm at f22



35mm at f4



105mm at f22





105mm at f22



105mm at f4



400mm at f22



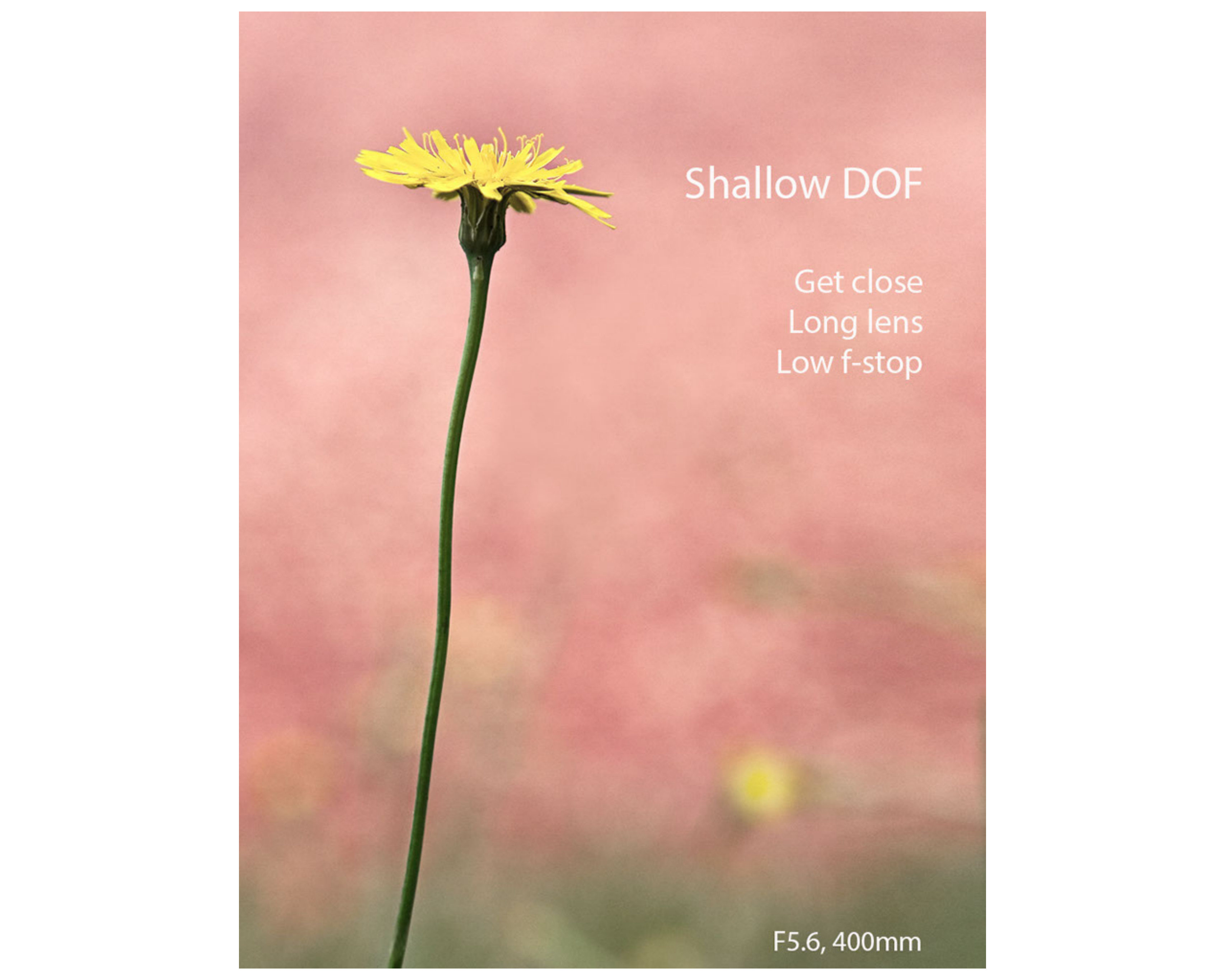
400mm at f22



400mm at f4

Use your aperture settings and depth of field as a compositional tool.

Make -- don't take -- a picture.



## Shallow DOF

Get close  
Long lens  
Low f-stop

F5.6, 400mm



F2.8



F8

Using shallow depth of field (low aperture) for portraits and close-ups blurs out the background, which reduces background distractions and emphasizes the subject.



F5.6, 75mm



F5.6, 400mm





F5.6, 400mm







F5.6, 400mm



F5.6



F4



F4.0



F4





F4



F5.6 - 1/200 - 400mm

Selective Focus

Use aperture settings to control which parts  
of the image are in focus.



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f5.6, 400mm



f5.6, 400mm

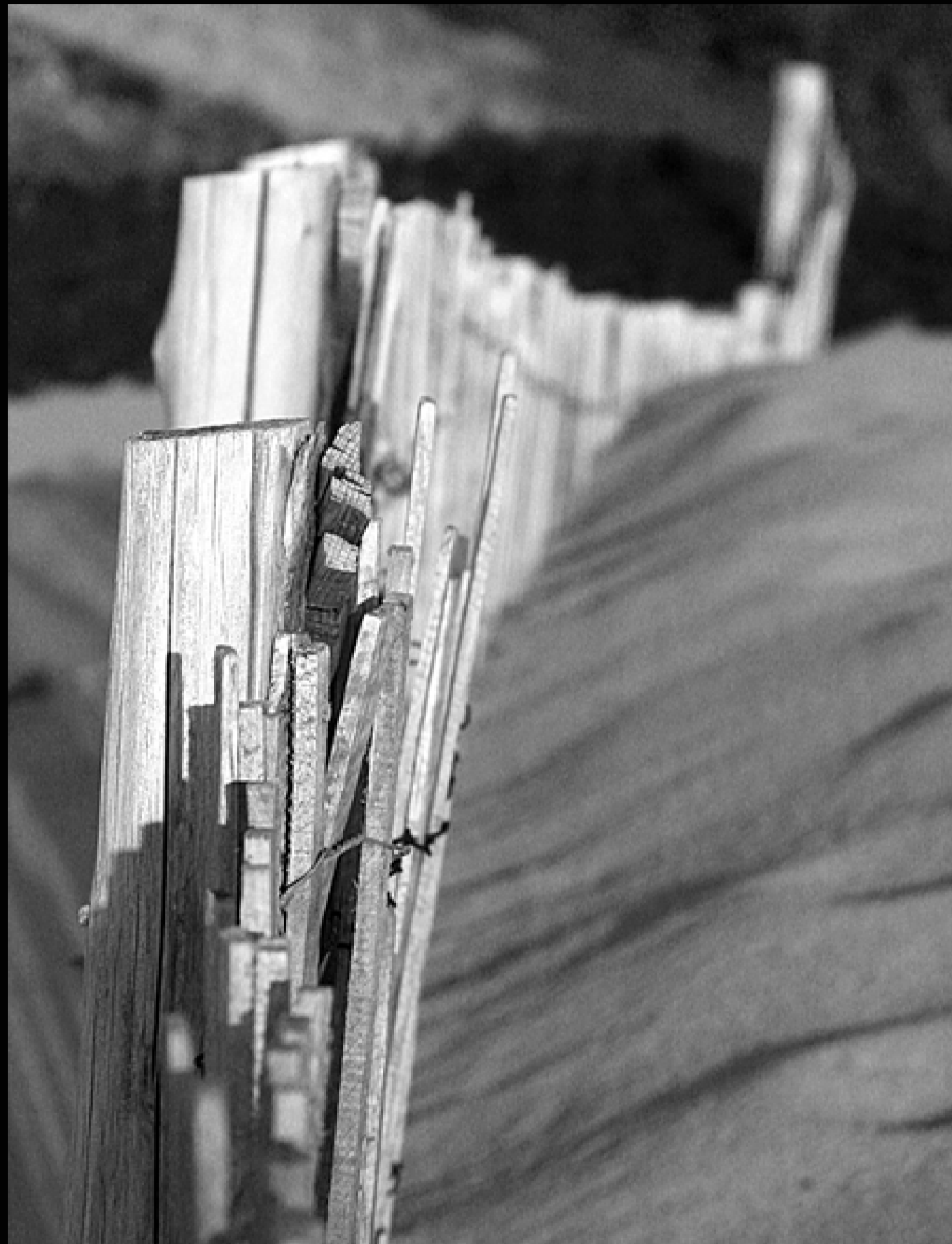


f8, 400mm





f8, 400mm



F8

Proximity to the subject also affects depth of field.

## Greater Depth of Field



F16, 16mm

High f-stops will help maximize depth of field.  
The focal length of the lens also affects depth of field.  
A wide angle lens (below 35mm) will increase depth of field.



21mm, F16



F11, 24mm



F11, 32mm



F8, 24mm

Wide-angle lens often used to emphasize foreground element and maximize depth of field to create expanded sense of space and distance.



F9, 16mm





F16, 45mm



F16, 50mm



f16, 24mm



F16, 24mm

What is Depth of Field?

# What is Depth of Field?

The area that is in focus.

What three things affect DOF?

# What three things affect DOF?

- Aperture (f-stop)
- Lens Size (focal length)
- Proximity to Subject





**Maximum Depth of Field**  
Acceptably sharp from front to back



# Maximum Depth of Field

How do you create it?



**Maximum Depth of Field**  
Small aperture/high f-stop (use f8+)



## Maximum Depth of Field

Small aperture/high f-stop (use f8+)

Short focal length/wide angle (50mm and under +/-)



## Maximum Depth of Field

Small aperture/high f-stop (use f8+)

Short focal length/wide angle (50mm and under +/-)

Proximity to Subject (not too close...experiment



Shallow DOF



# Shallow DOF

Soft background  
(or foreground)

Isolates subjects



# Shallow DOF

How to create?





# Shallow DOF

How to create?

Wide aperture/low f-stop  
(use 5.6 or under)



# Shallow DOF

How to create?

Wide aperture/low f-stop  
(use 5.6 or under)

Long focal length  
(telephoto)



# Shallow DOF

How to create?

Wide aperture/low f-stop  
(use 5.6 or under)

Long focal length  
(telephoto)

Proximity  
(The closer the better)

One More Thing  
About Aperture...

Sun/Moon bursts  
with high f-stop, wide angle

F11, 22mm





F16 sunburst



F16 moonburst

## Depth of Field and Selective Focus

### Assignments

Create images with shallow depth of field  
(low f-stop, close to subject, long lens)

Create images with great depth of field  
(high f-stop, not too close, wide angle lens)

