



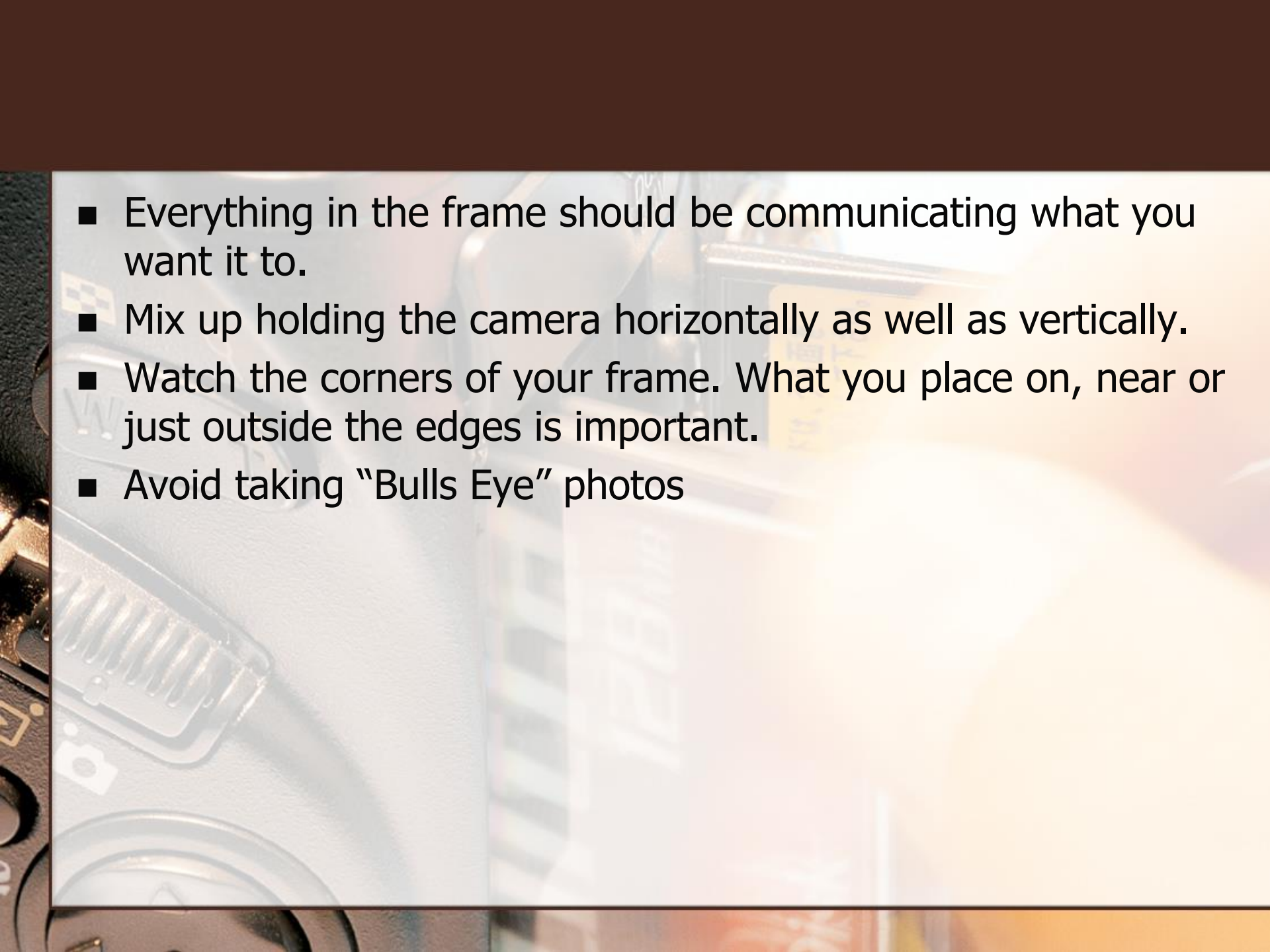
DIGITAL CAMERAS

Photography

Taking better photos

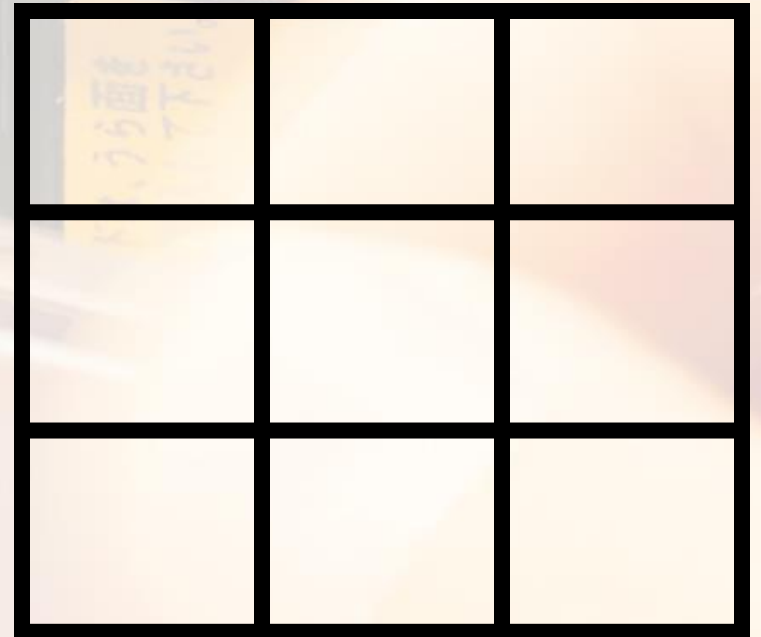
Composition

- Composition is the arrangement of the visual elements of the photograph, such as...
 - Geometric elements, such as lines, shapes, and curves
 - Contrasts of tone, color, light, in-focus/out-of-focus areas, and geometric elements
 - Repetitions of tone, color, light, in-focus/out-of-focus areas, and geometric elements
 - Being in-balance or out-of-kilter, between tones, colors, light, in-focus/out-of-focus areas, and the geometric elements
 - Subjects

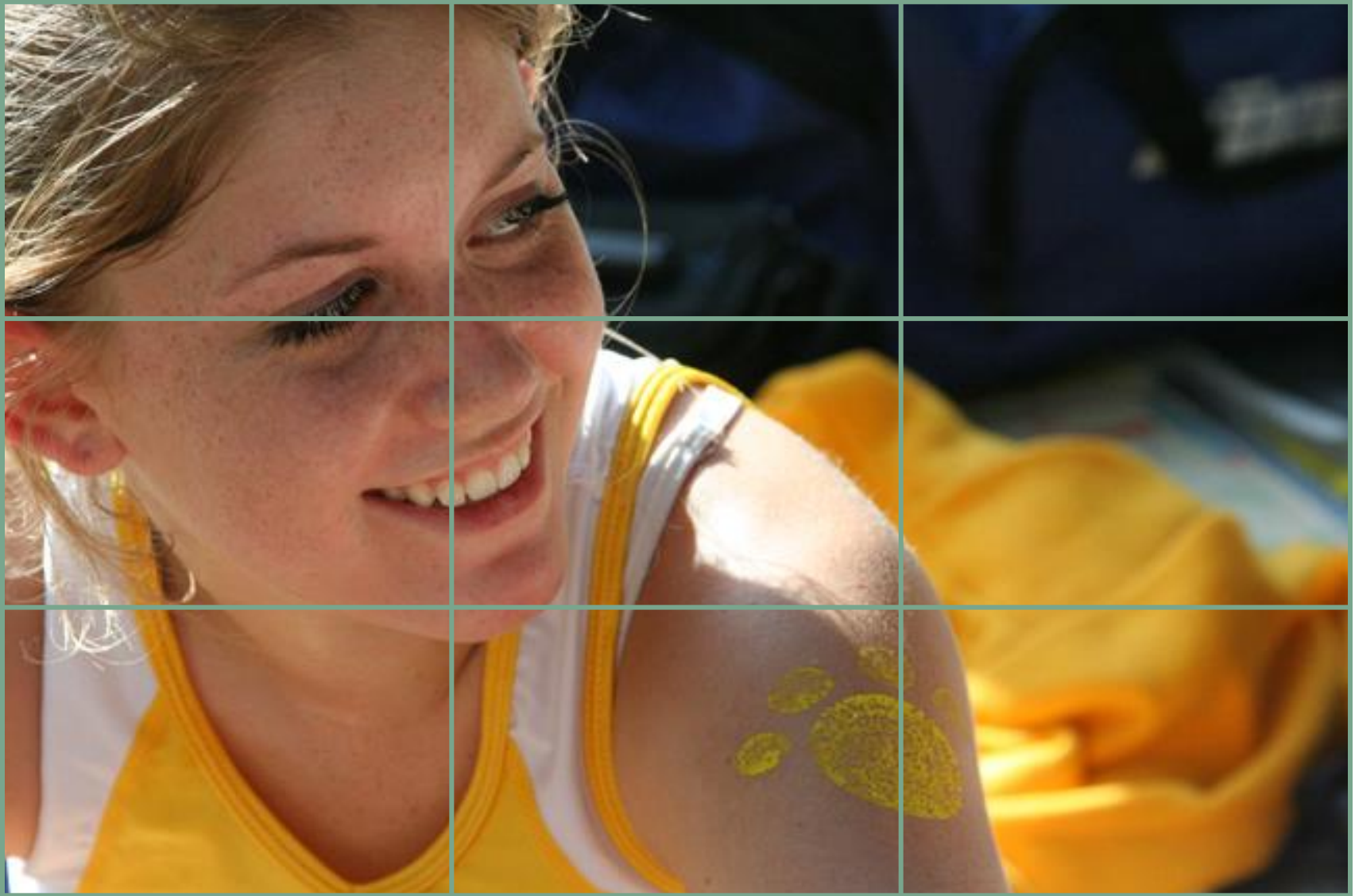
- 
- Everything in the frame should be communicating what you want it to.
 - Mix up holding the camera horizontally as well as vertically.
 - Watch the corners of your frame. What you place on, near or just outside the edges is important.
 - Avoid taking “Bulls Eye” photos

Rule of Thirds

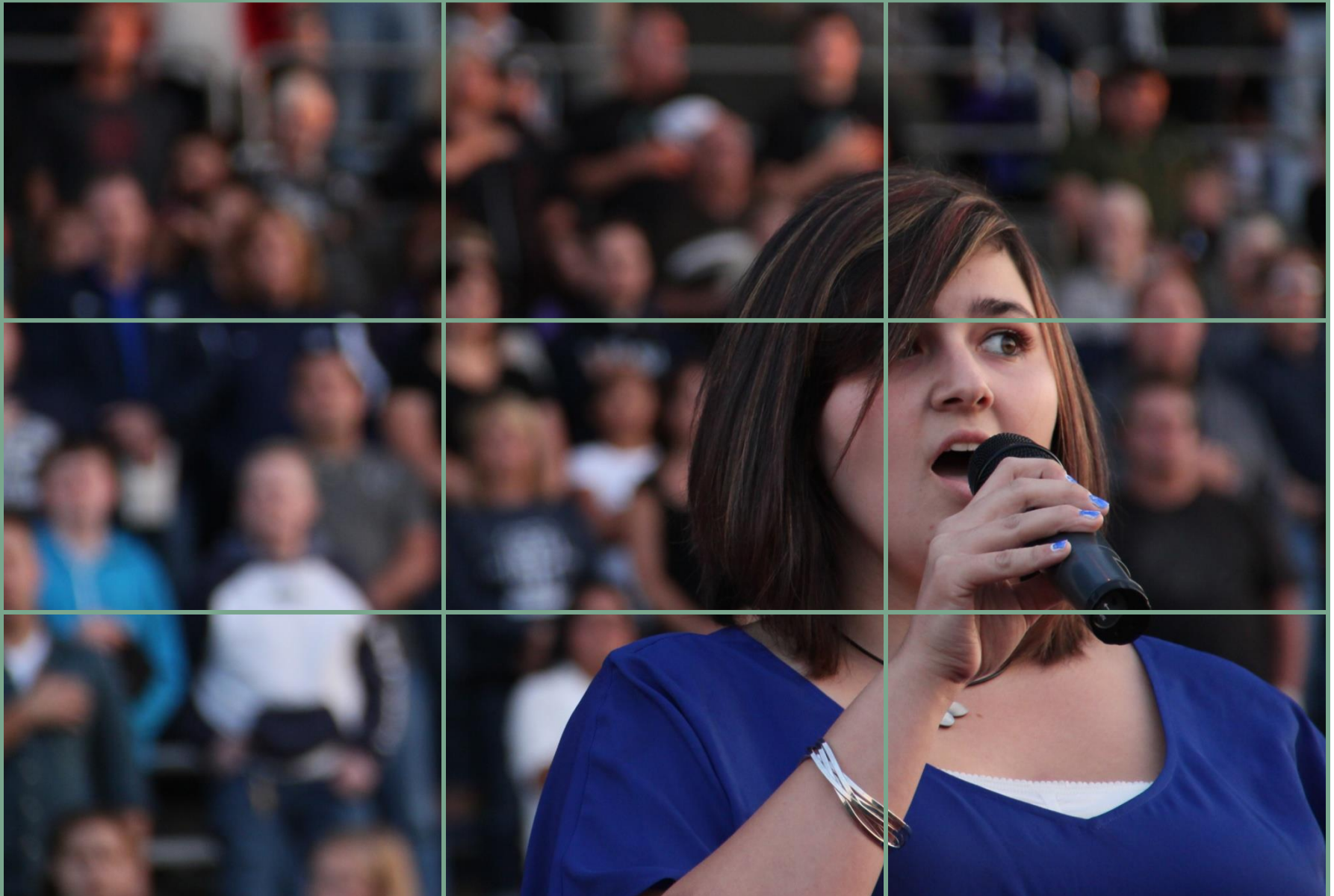
- Putting the subject off-center often makes the composition more dynamic and interesting.
- Even if your subject fills the frame, the most important part of the subject (for example, the eyes in a portrait) should not be dead center.
- Putting the subject off-center often makes the composition more dynamic and interesting.



Photography



composition



composition

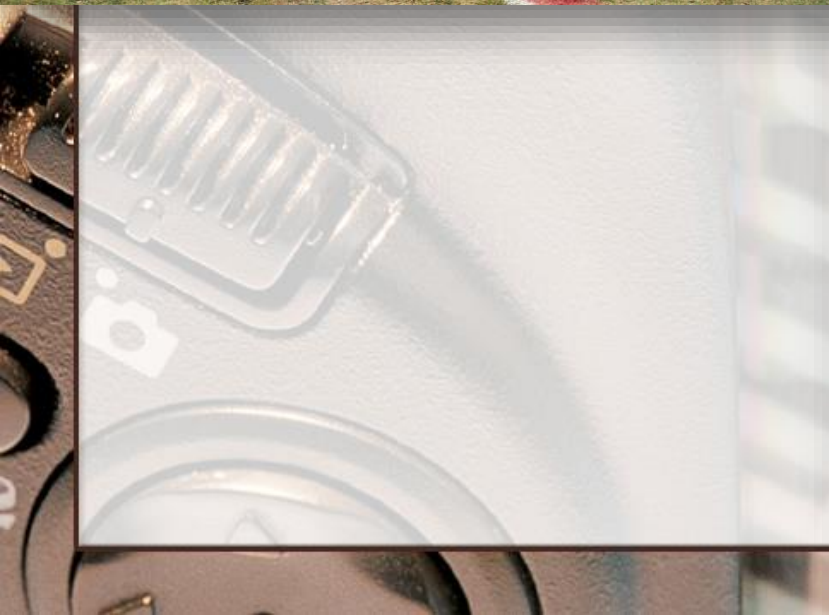


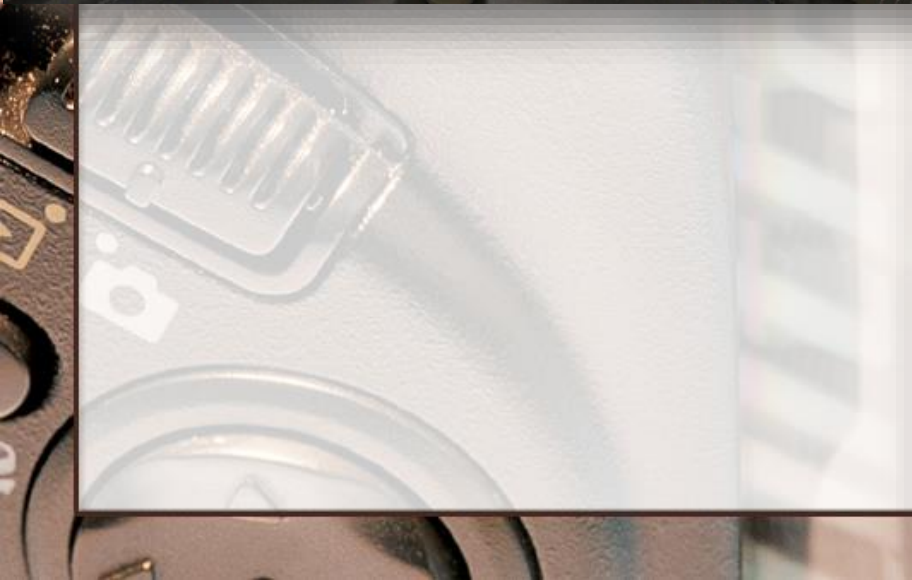
- Try to place your subject along one of the imaginary lines that divides your frame.
- Watch the horizon. Just as an off-center subject is usually best, so is an off-center—and straight—horizon line.
- Avoid cutting your picture in half by placing the horizon in the middle of the picture. To accent spaciousness, keep the horizon low in the picture. To suggest closeness, position the horizon high in your picture.



Use Leading Lines

- Capture depth with leading lines
- They begin close to the camera and travel into the distance
- Makes for a more interesting picture
- Leading lines can be the subject
- A row of objects can create leading lines
- Leading lines can frame the subject

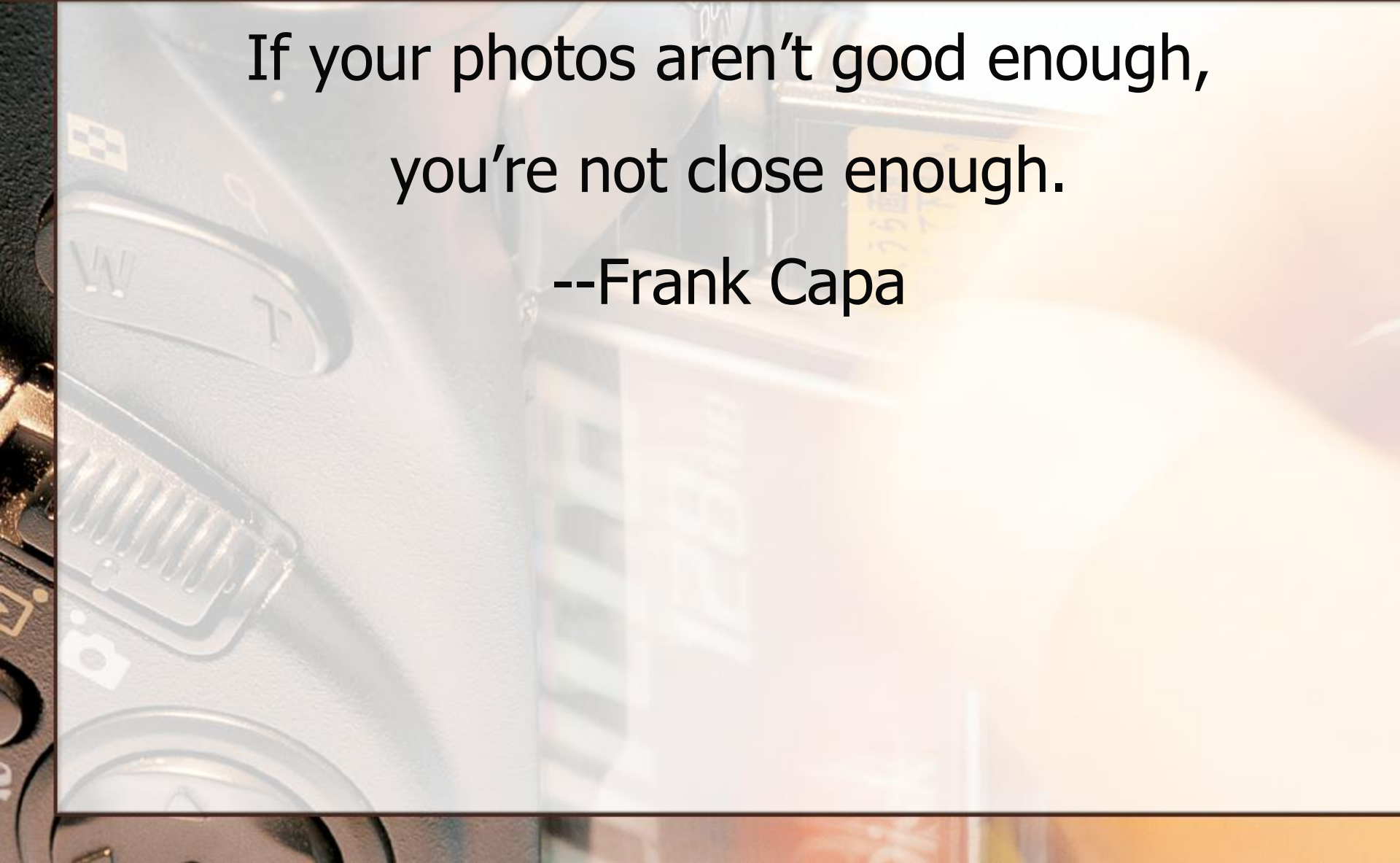




Fill the Frame

If your photos aren't good enough,
you're not close enough.

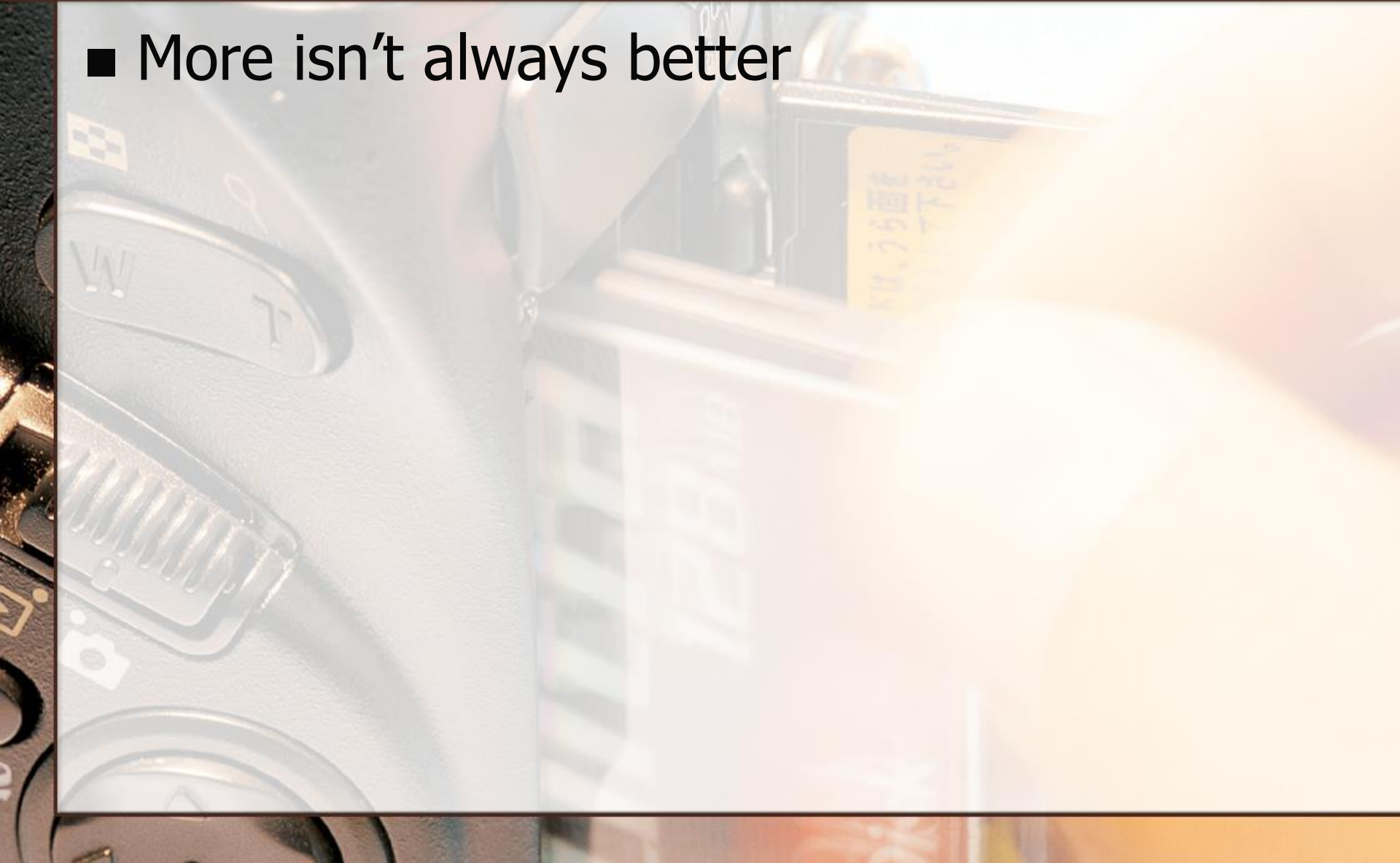
--Frank Capa





Use Isolation

- More isn't always better

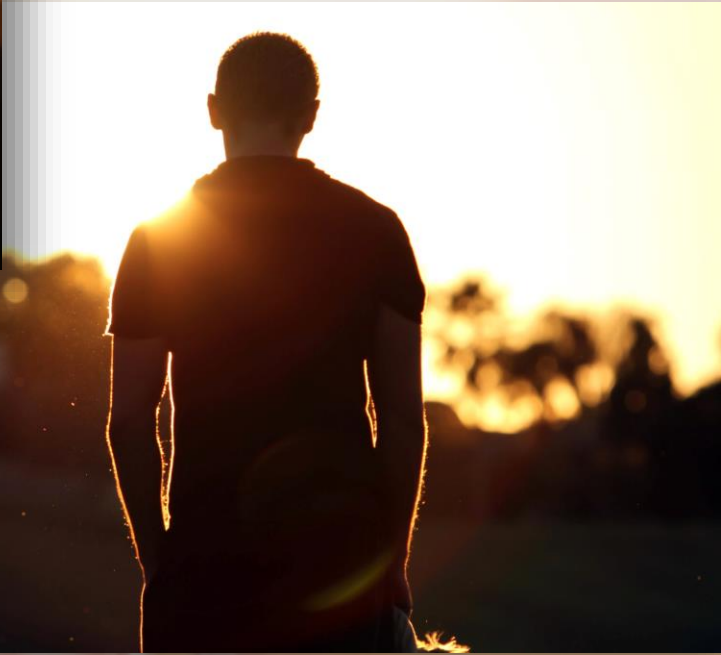




Lighting

- Sunrise & sunset are known as the magic hour because it provides the best natural lighting.
- Cloudy days are good for shooting outdoors.
- Use available lighting when possible.
- Don't blow out the photo with the camera flash.





Use Framing





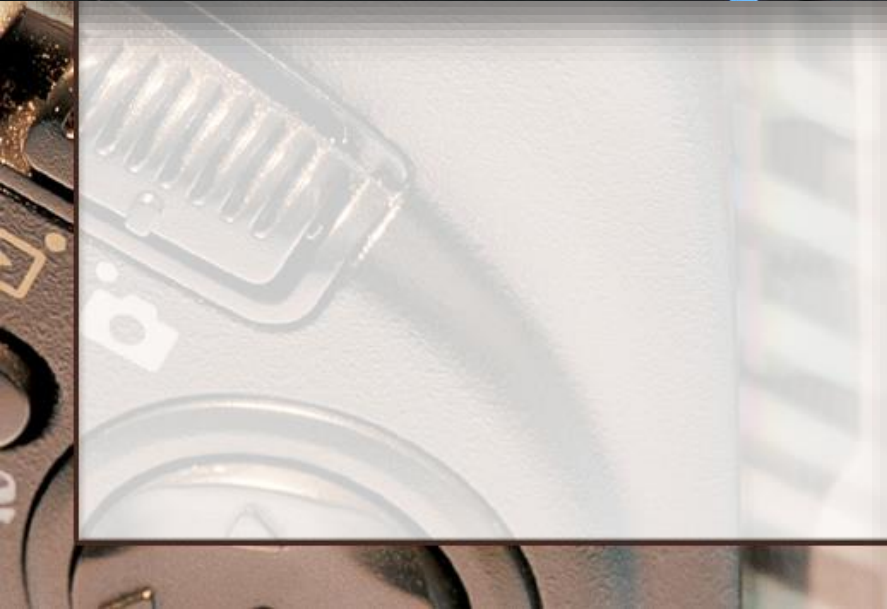
Find a Different Angle of View

Alter your position...

- Change your position to emphasize or exaggerate how big or small your subject is.
- Crouch down and shoot up at someone and that person towers over you.
- Shoot down on your pet and it seems so comically small.
- You can also move your camera right or left only a few feet to change the composition dramatically.



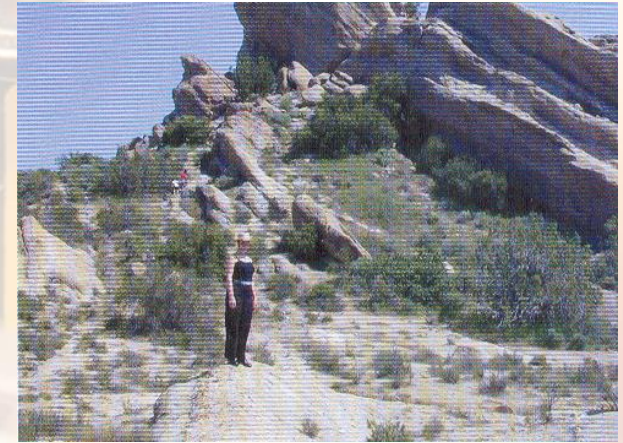
Bird's Eye



Camera Shots

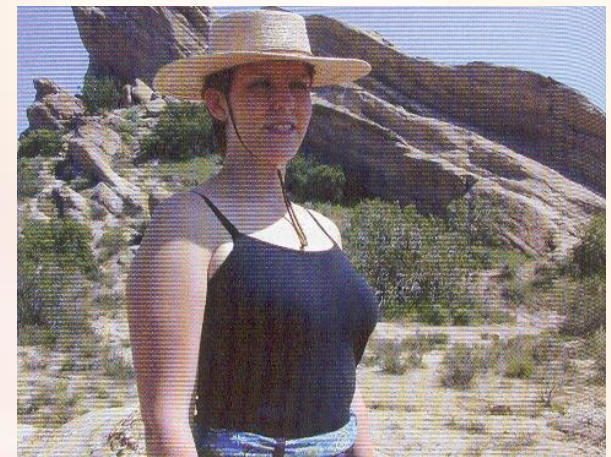
- **Long Shot**

The character in this shot occupies one-half to three-quarters of the screen height. Use this shot to effectively establish the environment for opening and closing shots.



- **Medium Shot**

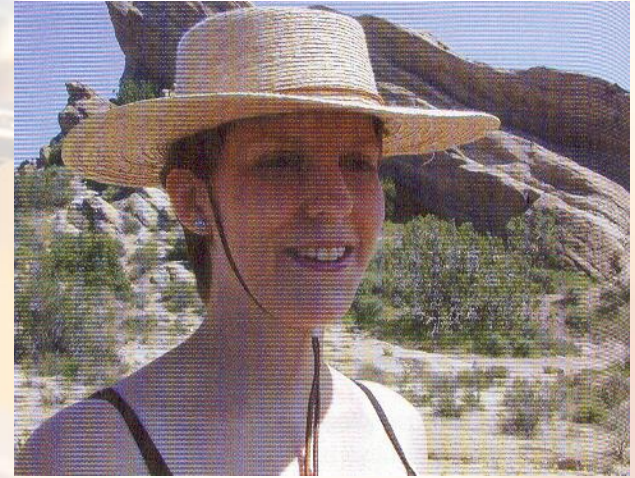
The standing human is distinct and somewhat closer, but with considerable head and foot room.



Camera Shots

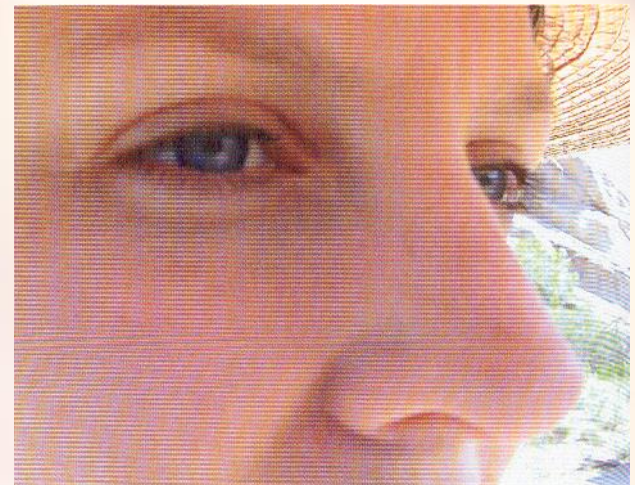
- **Close-up Shot**

The shot shows the subject from the shoulders to the top of the head.



- **Extreme Close-up Shot**

The shot shows the subject from the base of the nose to the eyebrows.



Planes

- **Background**

Pay attention to what is happening in the background, it can help or hurt your photo.

- **Middle ground**

Area between background and subject.

- **Foreground**

If it is empty then try checking your vantage point, zooming in, or place something to shoot through

- **Mergers**

Objects in the background that merge with the subject, like a telephone pole sticking out of a person's head.

- **Framing**

Use something in foreground or background to frame your subject, like a tree or arch.

Focal Length

- Wide angle pushes the background farther away, while zooming in brings it closer.
- Move closer to your subject whenever possible.
- Only use the zoom when you can't get any closer.

Depth of field

- The size of the aperture has a direct impact on the depth of field, which is the area of the image that appears sharp.
- Wide lens openings with a large aperture (f/1.4) will blur the background, a smaller aperture and lens opening (f/16) will bring both the subject & background objects in focus.
- **Depth** can be added by using...
 - Leading lines
 - Separation of subject & background
 - Out of focus background
 - Change color or contrast of background
 - Use back or side lighting
 - Haze
 - Scale

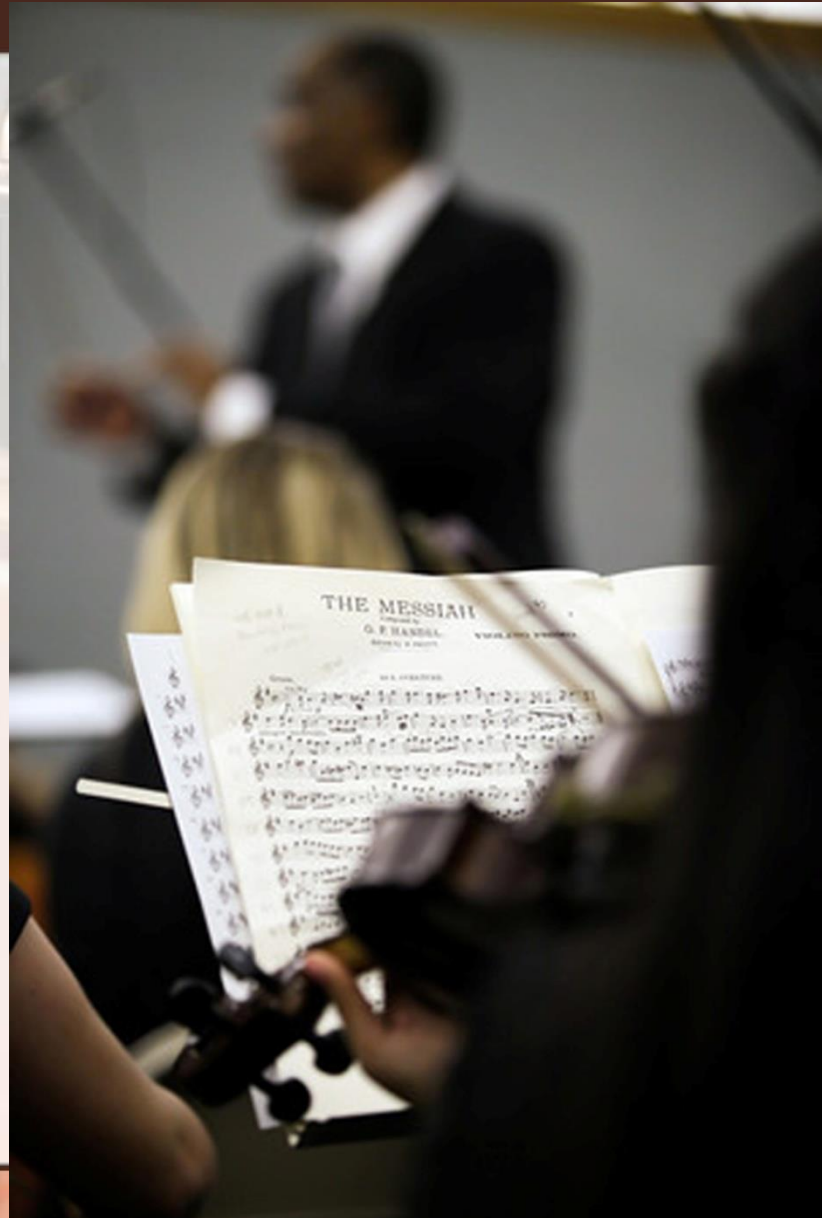
f/8 "sees" most like your natural eye.



f/1.4 will isolate the foreground




Use aperture for selective focus



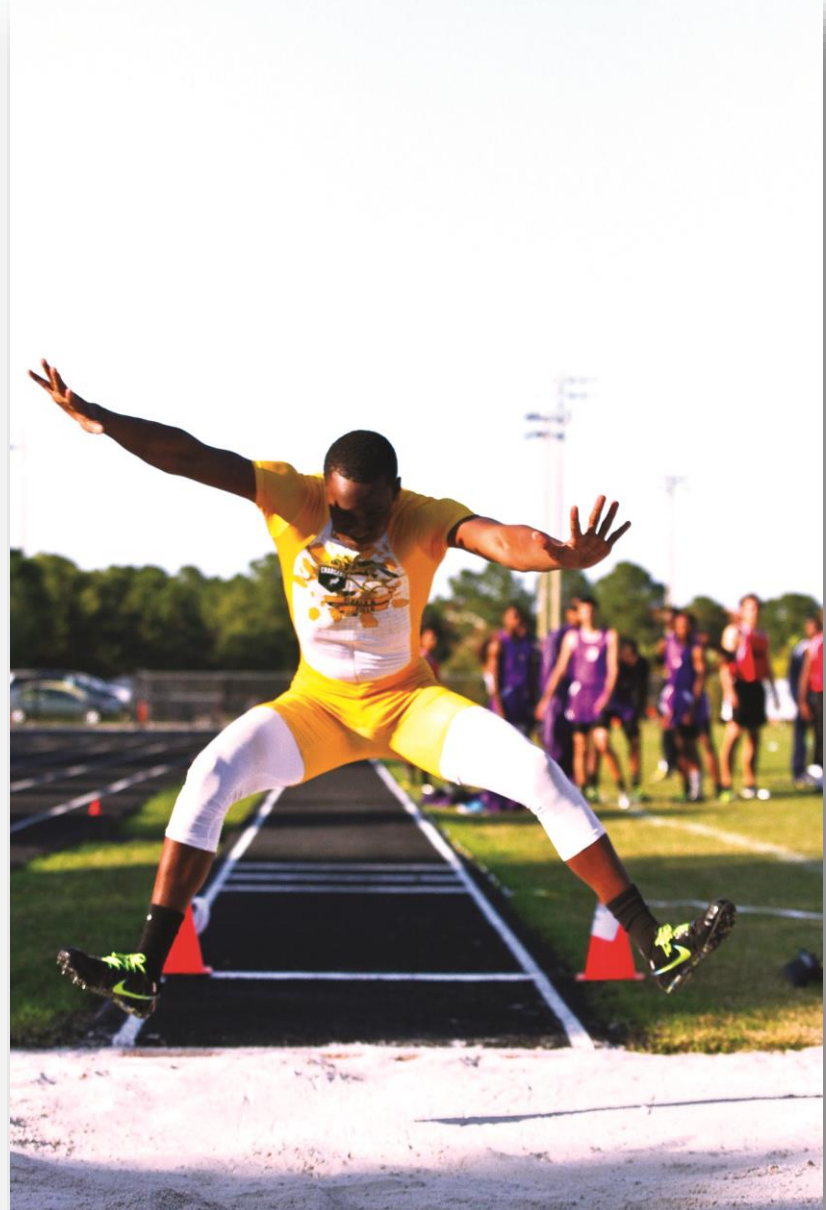
Shutter Speed

- Is the amount of time the shutter is opened.
- Consider the light source & level of activity.
- The more light, the faster the shutter speed can be. Less natural light = slower shutter speed.
- When the shutter speed is slow, the subject has to be relatively still or it will be blurred.
- 1/60 lets in more light than 1/125 by keeping lens open longer.
- Each time you move up the shutter speed (i.e. 1/60 to 1/125), you cut the amount of light in half.



Lighting	Shutter Speed
Activities in bright sunlight	250-500
Activities under cloudy sky	250
Indoor activities in well-lit area	125
Sitting still in classroom	60

Lighting	Shutter Speed
Activities in bright sunlight	250-500





Activities under
cloudy sky

250

Indoor activities
in well-lit area

125



Sitting still
in classroom

60



Example

S



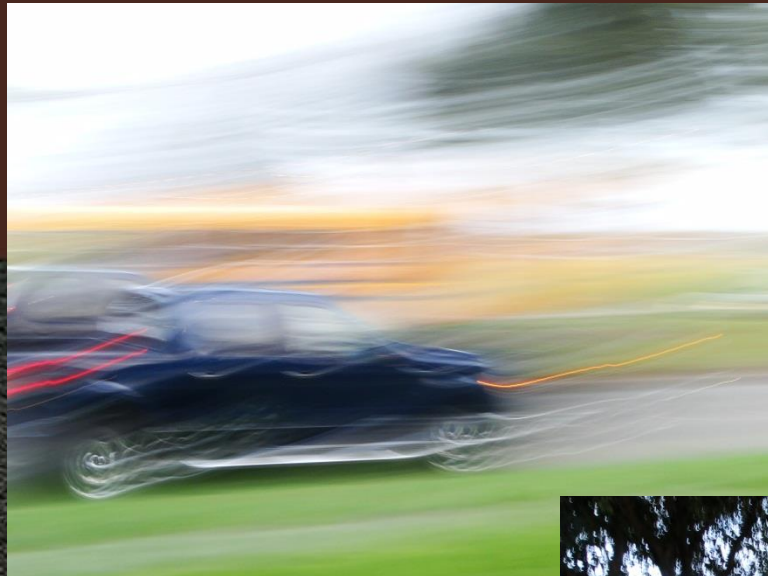
Shutter Speed: 1 second (1");
F-stop: f/8
ISO: 125



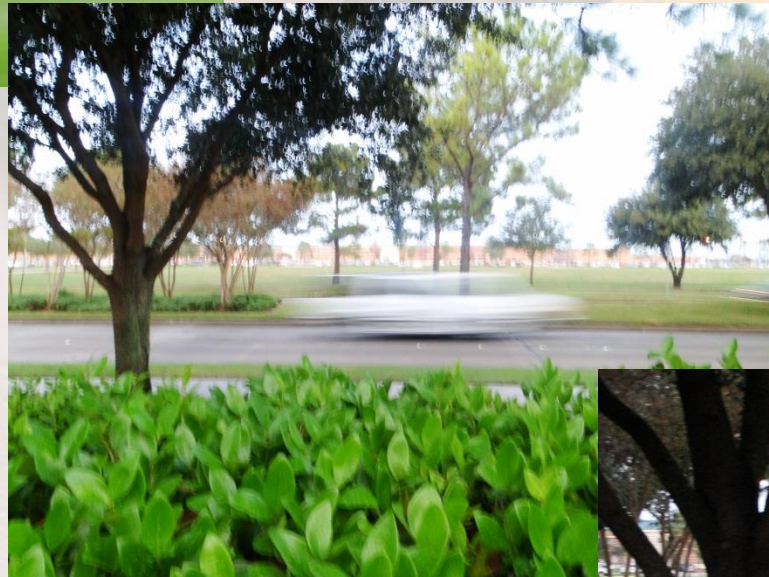
Shutter Speed: 1/125
second (125);
F-stop: f/3.2
ISO: 800

Shutter Speed: 1/3 (3) second;
F-stop: f/7.1
ISO: 125





Shutter Speed: 1/4 second (4)
F-stop: f/5.6
ISO: 125
Camera is still



Shutter Speed: 1/4 second (4)
F-stop: f/5.6
ISO: 125
Moving camera w/ car

Shutter Speed: 1/600second (4)
F-stop: f/3/5
ISO: 800

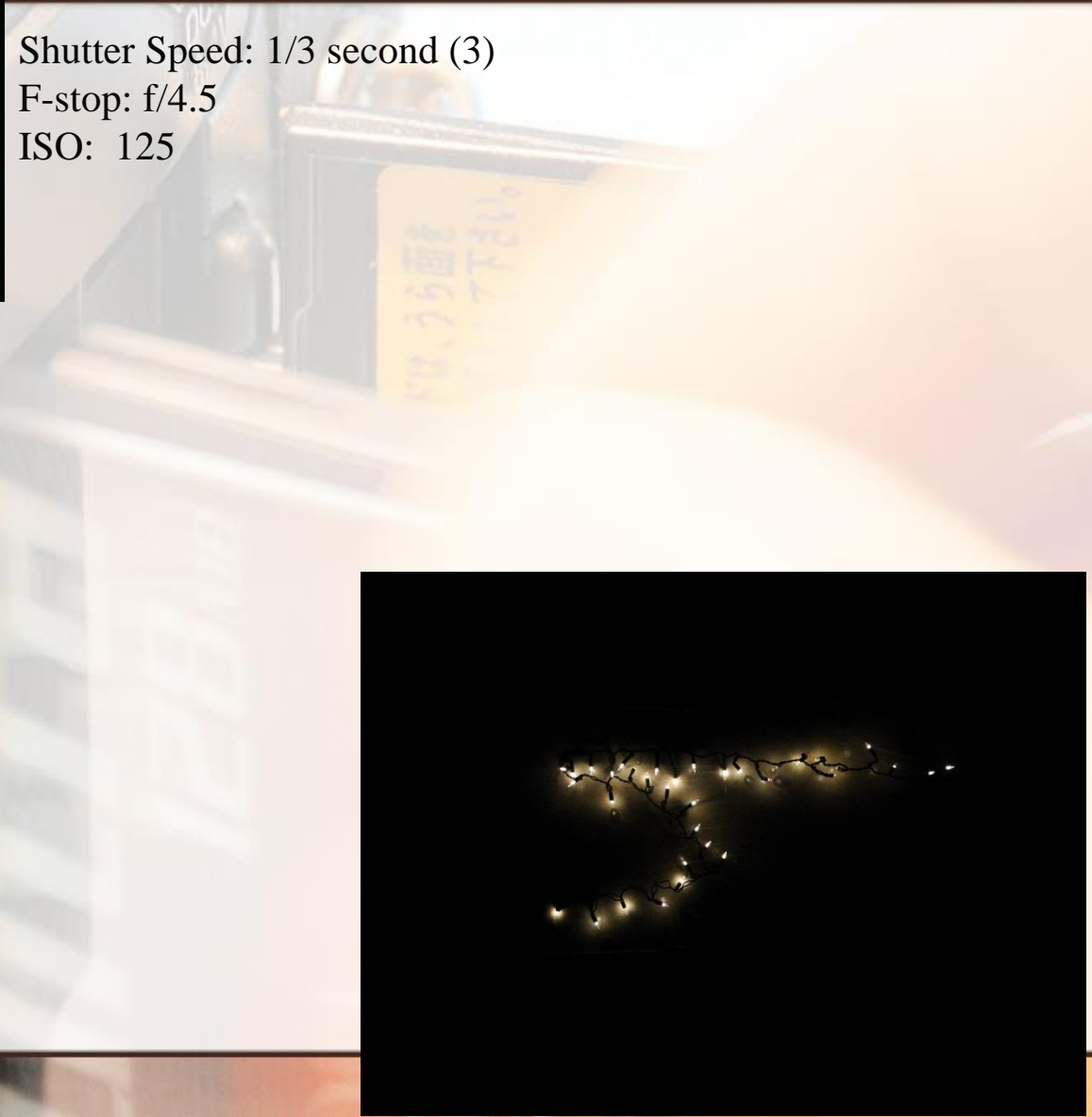




Shutter Speed: 1/3 second (3)

F-stop: f/4.5

ISO: 125



Other Factors that Affect Composition

- **Number of Elements**

Odd numbers tend to be more pleasing than even numbers.
Too many can be chaotic.

- **Physical Support**

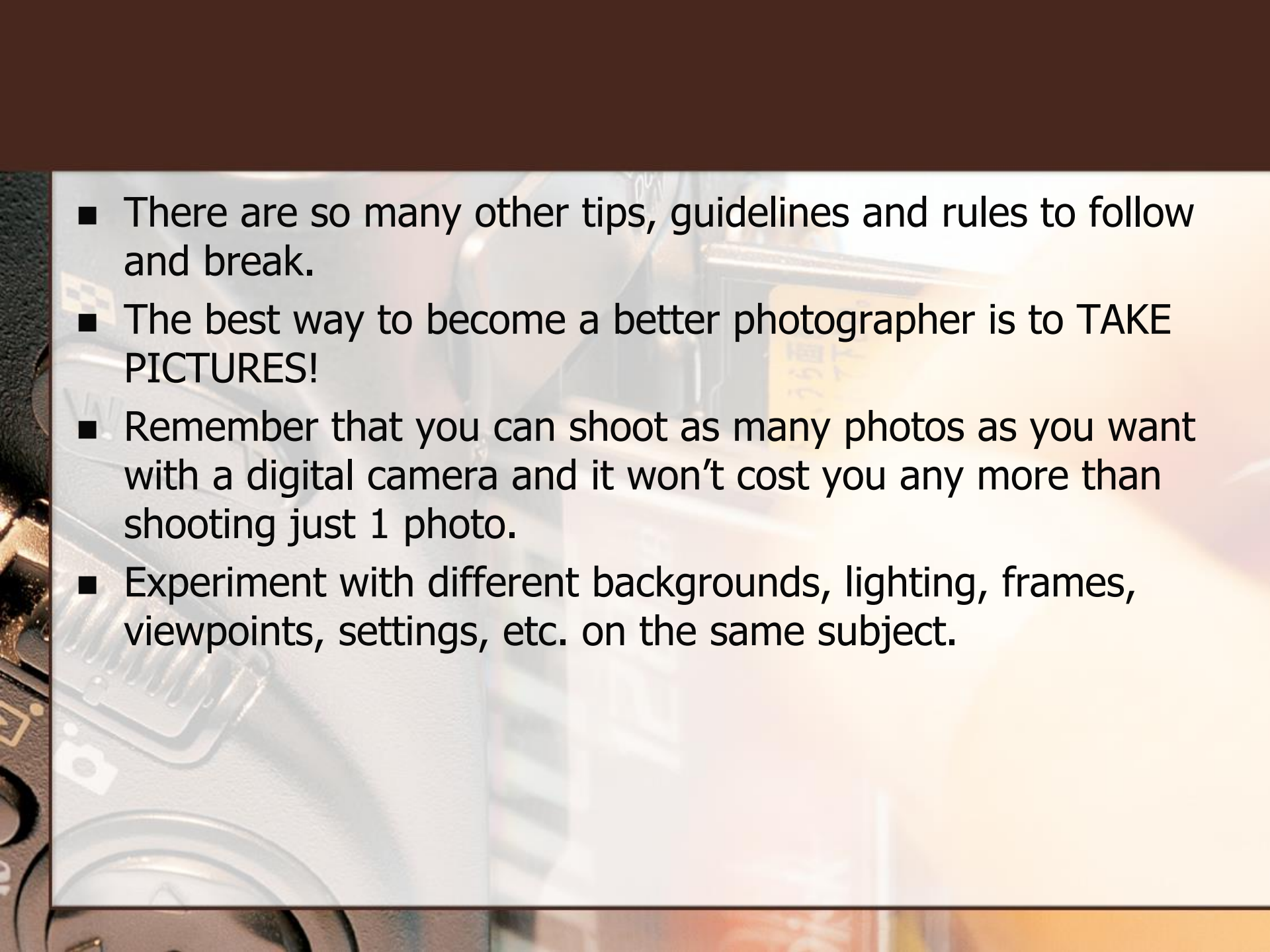
Avoid cropping out supportive elements, such as the leg of a table.

- **Words and Faces**

Can be distracting from the overall image.

- **Cropping**

Avoid cropping people at their joints

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- There are so many other tips, guidelines and rules to follow and break.
 - The best way to become a better photographer is to TAKE PICTURES!
 - Remember that you can shoot as many photos as you want with a digital camera and it won't cost you any more than shooting just 1 photo.
 - Experiment with different backgrounds, lighting, frames, viewpoints, settings, etc. on the same subject.