

ADVANCED PHOTOGRAPHY

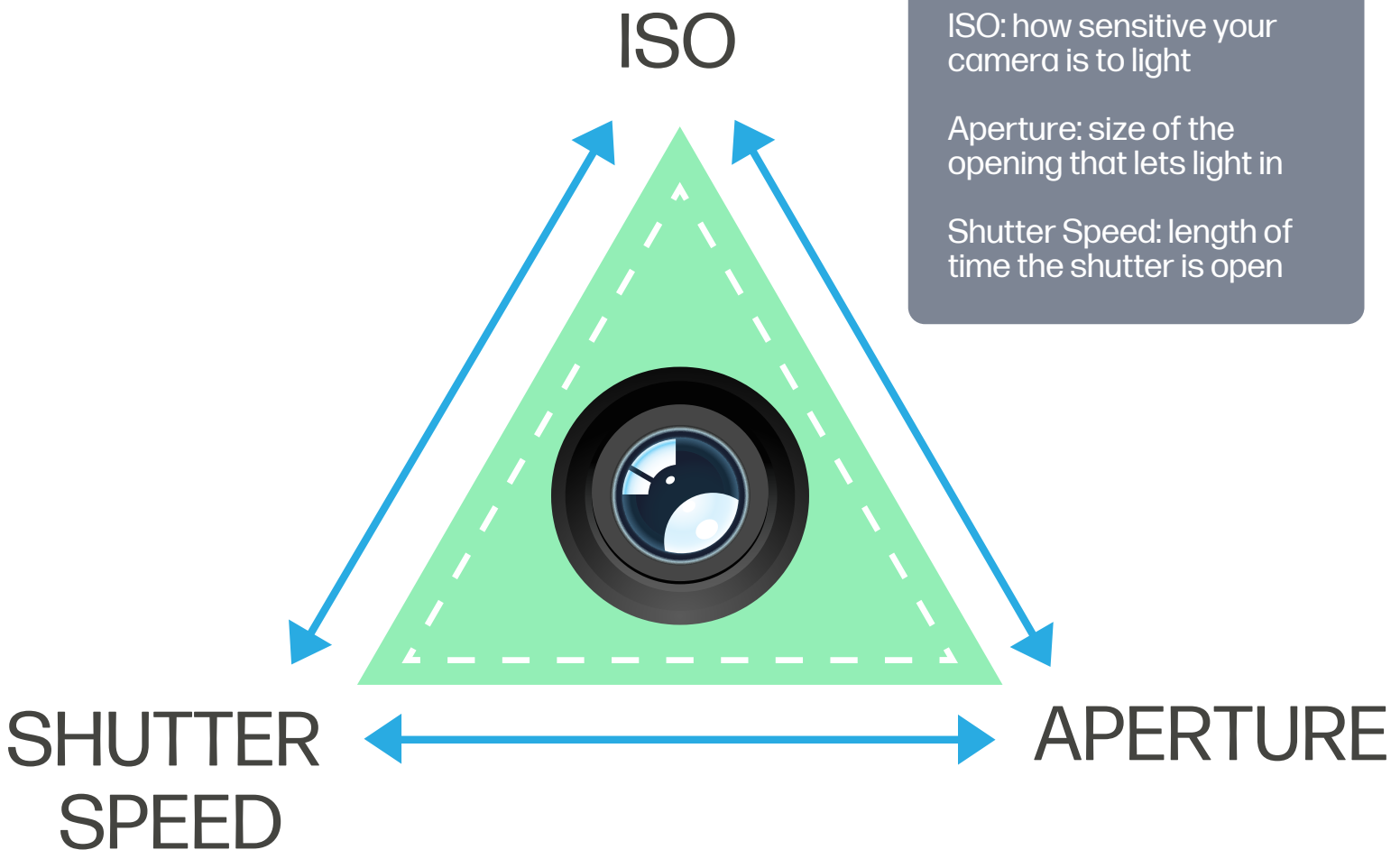
This resource was developed by The Roberta Bondar Foundation

©The Roberta Bondar Foundation



THE EXPOSURE TRIANGLE

ISO, Aperture, and Shutter Speed: these are the 3 components that influence exposure, i.e., the amount of light that enters the camera. If your participants are comfortable with photographic techniques and composing a good photograph, they can try their hand at The Exposure Triangle. Most of our participants take photos in Auto mode (and create some stunning work) but venturing into Manual mode and selecting their own settings will test and expand their photography skills. Note: This section is most suitable for participants with advanced photography skills. Manual manipulation of these settings may require higher models of cameras.



SHUTTER SPEED

- Shutter speed is the amount of time the shutter is open, measured in seconds
- Faster shutter speeds allow you to freeze movement in an image, while slower shutter speeds allow you to capture motion by blurring the moving object.
- If you're using slow shutter speeds, you will need to use a tripod to stabilize the camera.
- Some camera models in our loan program have settings, such as "Sport", that have faster shutter speeds to allow crisp captures of moving subjects.

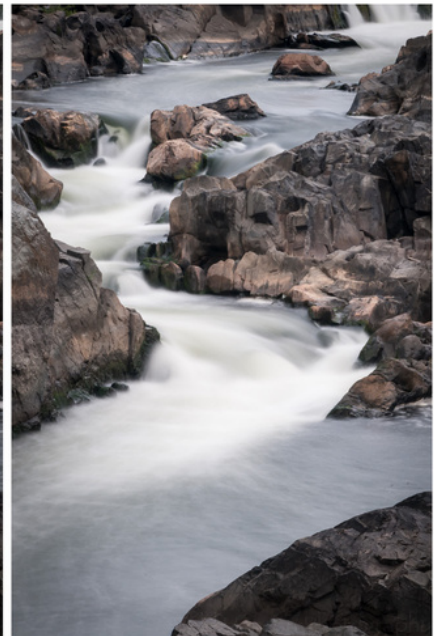
Shutter speed made easy: To help participants understand this concept, compare the shutter to a blinking eye. Have participants blink quickly, comparing it to a fast shutter speed. Then have them open and close their eyes slowly, comparing it to a slow shutter speed.



1/8 second



4/5 second



8 seconds

Todd Henson

APERTURE

The Aperture is like the human eye. The pupil is the part of the eye that changes its shape to control the amount of light that enters the eye. When it is dark, the pupil will dilate to let more light in, but when it is bright, the pupil will contract.

- Aperture is measured in 'f/stops' and affects how wide the lens opens to let light in when you take a photo.
- Wide apertures (where lots of light gets in) have smaller f/stop numbers and narrow apertures (where less light gets in) have larger f/stop numbers.
- Changing the aperture on your camera will affect the depth of field in your photo. Depth of field is the amount of your photo that will be in focus. Large depths of field result in more of the photograph in focus. Small depths of field result in focused foregrounds and less-focused backgrounds.
- In Macro mode, aperture is automatically changed to wide (smaller f/stop) with a small depth of field.



f/1.8



f/2.8



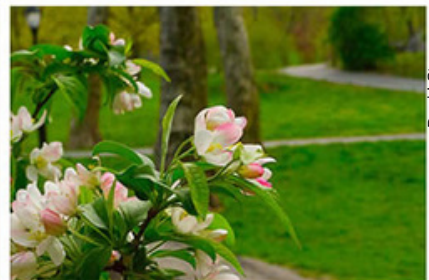
f/4.0



f/5.6



f/16



f/22

David Strever

ISO

- ISO measures how sensitive the camera is to light.
- Lower numbers mean the camera is less sensitive to light and higher numbers mean the camera is more sensitive to light.
- Unlike aperture and shutter speed, ISO can be adjusted on the cameras provided in our camera loan program.

