PINHOLE PHOTOGRAPHY: FROM MATCHBOX TO WORKING CAMERA

Here is a brief glossary of photographic terms to help you through my class.
It is by no means extensive, I've tried to focus on the basics. Enjoy!

Focal length —
the distance between the centre of the lens and where the image is focused. On a pinhole camera this is the distance between the pinhole and the image plane (see next).

Image plane —
where the image is focused. Light passes through the pinhole or camera lens and is projected onto a surface where the film or photographic paper is placed.

Aperture —
is the size of the opening in the front of the camera. The size can be calculated to help determine exposure time and is rated as f-numbers. The size of the aperture effects the amount of light which is let into the camera and the depth of field (how much of the photo is in focus).

Shutter speed —
is the length of time used to take the photograph. For example if a photograph is taken at 125th of a second then the shutter was open for 0.008 of a second.

Shutter —
a mechanical element used to control light getting into the camera.

ISO —
is the speed of photographic paper/film or digital sensor. ISO is expressed as a number rating for example ISO 100 or ISO 400. The higher the number — the faster or more sensitive to light is the photographic paper/film or digital sensor.

Exposure —
a photographic exposure is the perfect combination of shutter speed, aperture and ISO to capture a scene using a camera. Smaller cameras, smart phones and tablets typically control photographic exposure automatically. However more advanced camera equipment, both amateur and professional, allow the photographer to control photographic exposure. Shutter speed, aperture and ISO are the free pillars of chemical and digital photography.

Latent image —
the image captured on film or photographic paper before it is developed.

Negative image —
a image where everything is reversed. Images photographed on photographic film are typically captured as negative images and then converted to positive during the printing process. Slide films capture images in positive.

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Positive image —
the reverse of a negative image, printed photographs and slides as positive.

Photographic film —
photographic film used in a camera to capture a scene. Popular formats include 35mm, 120/220 and 5x6.

Photographic paper —
photosensitive paper used to produce photographic prints in a darkroom. Not to be confused with photo papers marketed for inkjet printers.

Image sensor —
is a sensor which detects light and converts it into a digital value. All modern digital cameras use either a CMOS or CCD sensor.

Compact camera —
a small, simple camera with automatic focusing and exposure. Has been supplanted in recent years by smart phones.

SLR —
a single-lens reflex camera (SLR) is a camera that uses a mirror and prism system that permits the photographer to view through the lens and see exactly what will be captured. When the photograph is taken the mirror moves out of the way so light can expose the film or digital sensor. Modern SLR cameras with digital sensors are called DSLRs or digital single-lens reflex cameras.

35mm (135) —
is a popular film format used in cinematography and chemical photography. The name of the gauge refers to the width of the photographic film. The format was developed in the late-19th century and is still used today.

Lens —
is an optical lens or assembly of lenses used in conjunction with a camera body and mechanism to make images either on photographic film or on other media capable of storing an image chemically or electronically.

Pinhole lens —
is a small hole at the front of the camera, it does not have a glass and can be calculated using rudimentary optics dating back to Ancient Greece.

Vignetting —
is a reduction of an image's brightness or saturation at the periphery compared to the image centre.

Aberration —
the inability of a lens to reproduce an accurate, focused, sharp images.

Fogging —
is the deterioration in image quality caused either by too much light or chemical processing.

Focus —
when the image is clear and sharply-defined.