

LIGHT

In photography we work with the visible (in some cases the invisible) portion of the light spectrum.

Light as it relates to photography may be broken down to two types:

1. **INCIDENT LIGHT**. This is the light that comes from the source to the subject.
2. **REFLECTED LIGHT**. This is light that bounces (reflects) from the subject.

FORMING AN IMAGE

Parallel rays of light, when they travel through a curved piece of glass, called a lens, are bent and brought to a focus.

The point where the light is brought together to a focus is known as the **FOCAL POINT**.

The distance from the middle of the lens to to the focal point is known as the **FOCAL LENGTH** of that lens.

If light enters a lens from a variety of directions these rays of light will be brought to a focus on a flat area around the focal point known as the **FOCAL PLANE**. And it is on the Focal Plane where the image is formed by the lens of the subject from which the light has been reflected and gathered by the lens. If we want to capture this sharp image on film the film must be placed at the focal plane of the lens.

LENS GROUPINGS

1. A **SIMPLE** lens has a single element.
2. A **COMPOUND** lens has two or more elements.

Film is coated with a material (emulsion) that is sensitive to light. A sharp image projected onto a piece of film in the proper quantity and duration will result in an image being formed on the film of correct exposure.

The purpose of the camera body is to keep the film in a light tight condition protecting it from stray light and unwanted exposure.

Cameras are equipped with only two mechanisms for controlling light.

1. The **APERTURE** (also called the diaphragm or *f* stop).
2. The **SHUTTER**.

By proper control of the aperture and shutter to suite the sensitivity of the film we can achieve correct exposures every time!!!

