



Completion Type Questions - Exercise -4: 35mm cameras

27 minutes left

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PASSAGE

35mm Film cameras

Snap a photo with your camera, cell phone, or MP3 player and you have a piece of digital information you can use in all kinds of different ways: you can instantly email it to a friend, upload it to a website, or edit it on your computer. Only a few years ago, this sort of thing wasn't possible because cameras worked differently: they were entirely analog, capturing pictures as patterns of light and dark using chemically treated reels of plastic film, and a photograph took hours (or even days) to appear in your hand. Although some professional photographers still use film cameras, most of us have long since abandoned them to history, along with steam engines and the telegraph. That's a shame because they can actually teach us quite a bit about chemistry, physics, and the science of light. Let's take a closer look at how they worked!

The key features of a film camera are:

- A plastic or metal **case** that is completely light-tight to protect the film.
- An **aperture** (or diaphragm): a small circular hole in the case that lets in light for the short period when you want to take a photo.
- A **shutter** mechanism: a spring-loaded set of overlapping blades, like the ones you see at the start of a James Bond film, that open to let light in through the aperture for a precise amount of time before closing up again.
- One or more **lenses** in front of the shutter. The lenses are a crucial part of the camera and do several jobs at once. First, they scale down the large, incoming image of the world so it fits into a much smaller area of the film: no-one really wants life-sized photos! Second, lenses concentrate the incoming light energy so the image forms on the film more quickly and the camera can be used in darker conditions than would otherwise be the case. Third, they bring the light rays into a sharp focus exactly on the surface of the film, so you get a clear, sharp, image rather than a blurred, fuzzy impression. Finally, they also minimize the distance between the aperture and the film so cameras can be made relatively small and portable. When you adjust the focus on a camera, you're actually moving one or more of the lenses back and forth (closer to or further from the object and the film) to make different parts of a scene appear sharper on the film, according to whether you want to emphasize near or distant objects in your photograph.
- A roll or piece of **film** (on the back wall of the camera directly opposite the shutter).

A **single-lens reflex** camera (**SLR**) is a camera that typically uses a mirror and prism system (hence "reflex" from the mirror's reflection) that permits the photographer to view through the lens and see exactly what will be captured. Here's how an SLR camera works: Light enters at the front and passes through the lenses and iris diaphragm, which has metal blades that open and close to let in more or less light. Inside the camera, the light bounces off a hinged mirror and shoots up into a Penta-prism (five-sided prism), which bounces it into the viewfinder and your eye. When you press the shutter (not shown), the mirror flips down out of the way and the light from the lens (dotted line) passes straight through to the back of the camera, hitting the film instead. This type of design ensures that the image you see through the viewfinder is exactly like the image captured on the film.

Questions

**\*\*Questions 1- 5\*\*** Refer to the Passage and label the diagram with the correct name of each part of an SLR Camera. To See Image Click Below Link: <https://s3-ap-southeast-1.amazonaws.com/ufaber-lms/uploads/imgs/slr+final.png> Write your answers in the blank given below. (1)\_\_\_\_\_ enters at the front and passes through the (2)\_\_\_\_\_ and (3)\_\_\_\_\_. Inside the camera, the light bounces off a (4)\_\_\_\_\_ and shoots up into a (5)\_\_\_\_\_.

Q.1 \_\_\_\_\_ enters at the front and passes through

Q.2 the \_\_\_\_\_

Q.3 and \_\_\_\_\_

Q.4 Inside the camera, the light bounces off a \_\_\_\_\_

Q.5 and shoots up into a \_\_\_\_\_.

Questions

**\*\*Questions 6– 10\*\*** Choose **\*\*NOT MORE THAN THREE WORDS\*\*** from the passage for each answer. Write your answers in the box given below.

Q.6 \_\_\_\_\_ can be instantaneously emailed to a friend, uploaded to a website, or edited on a computer.

Q.7 \_\_\_\_\_ are an amalgamation of chemistry, physics, and the science of light.

Q.8 The small circular hole in the case that lets in light for the short period when you want to take a photo is called an \_\_\_\_\_.

Q.9 The lenses are a crucial part of the camera and do \_\_\_\_\_ at once.

Q.10 A SLR is a camera that typically uses a \_\_\_\_\_ system.

Submit