

## **LENSES**

**grey book, pp. 96-114**

**black book, pp. 55-77**

The purpose of a lens is to \_\_\_\_\_ light and \_\_\_\_\_ it to the film. A lens provides a definite \_\_\_\_\_, giving a sharp, focused image, and increases the tonal contrast. Lens design is based on the principle that light is \_\_\_\_\_, or refracted, as it passed from air to glass or glass to air, as it does in a prism.

Terminology — Define the following terms. The black book has a glossary entry for most of these terms.

focal point:

focal plane:

focal length:

f-stop/f-number:

lens speed:

depth of field:

zone focusing:

What is the depth of field scale for on your lens? How does it work?

What are some advantages and disadvantages of using an autofocus lens?  
(list three of each)

How do each of the following lenses affect image size and depth of field? For what kind of pictures would you use each type of lens?

20-35 mm      short focal length (wide angle)

50 mm          normal focal length

85-105 mm    short telephoto

135-200 mm   medium telephoto

210+ mm      long telephoto

What are the advantages/disadvantages of using a wide angle lens?

What are the advantages/disadvantages of using a telephoto lens?

What is special about a zoom lens? What are advantages of using one?

What is a fisheye lens? What is its mm measurement? How does it make the image appear?

What is a macro lens? What is its mm measurement? When would you use it?

What is a soft-focus lens and when would you use it?

What does a tele-extender (teleconverter) do? Where is it attached?

How should you take care of your lenses? How should you clean your lenses?