Because the size of the eye section is large, even at the lowest power, this is another slide in which you will have to move around to see the entire structure. First examine the slide with the naked eye to orient yourself to its gross features: you should be able to see the cornea, lens (fractured), anterior and posterior cavities, and ciliary bodies.

Using the 4x objective, find the globe of the eye, and trace its edge around the entire perimeter, identifying the regions as you come to them and noting the layers in each region.

Before you begin an illustration, identify all features listed for the illustration. You should make three illustrations:

I. Gross anatomy of the anterior portion
II. Low power view of the rear wall and
III. High power view of the retina

Slide 8: Eye, Monkey, general structure, sagittal section, general features

I. Eye, anterior portion, gross anatomy at 40x:
(MF 4th, page 343)
FIBROUS TUNIC:
cornea (anterior 1/6th)
sclera (posterior 5/6ths)
ocular conjunctiva
corneal limbus (cornea & sclera join)
canal of Schlemm (prob. not visible)

VASCULAR TUNIC:
ciliary body:
ciliary muscle (adjust lens shape)
ciliary processes (make aq humor)
iris (amount of light entering eye)
pupil (aperture formed by iris)

NERVOUS TUNIC:
retina

OTHER EYE FEATURES:

lens (often fragmented)
suspensory ligaments (not visible)

II. Eye, rear wall cross section, 100x:
(MF 4th, page 345)
adventitia (orbital fatty tissue)
sclera (dense irregular C.T.)
choroid, darkened with melanocytes
retina:
cell bodies form three stripes:
photoreceptors most dense, deepest
bipolar cells fewer, middle layer
ganglion cells fewest, towards surface

III. Retina, cross section, 400x:
(MF 4th, page 345)
Deep to superficial tissues:

pigment cells (simple cuboid epithelium)

rods (finer and longer)
cones (thicker and shorter)
outer limiting membrane
nuclei of cones (closer to choroid)
nuclei of rods (further from choroid)
nuclei of:

horizontal cells (close to receptors; incr contrast)
bipolar cells (process input from rods & cones)
amacrine cells (closest to ganglion)
ganglion cell bodies
Mullers fibers (vertical from ganglion cells)