

Read Pages 124-133 and answer the following questions on a separate sheet of paper in complete sentences. (25 pts)

1. Fill out the parts of the eye diagram, and in addition to labeling the parts of the eye, briefly state the function of each part in the space below the diagram. (4 pts)
2. What is transduction, and what two physical characteristics are involved in transduction in humans? (2 pts)
3. Some people have heard that the eyes see images upside down, but it is not that simple. Explain the source of this simplified belief, and what *actually* happens when light enters the eye? (3 pts)
4. Use info about rods and cones to give a detailed explanation about "dark adaptation" in your own words. (2 pts)

(Note table 4.1. - You may choose to copy this chart, you need to know the information in it.)

5. Do the requested action demonstrating the misfiring of retinal cells. Did it work? The book talks about why the brain interprets light as coming from the left. Use your knowledge of how the brain works to explain the reasoning in the book even further. (Explain why when pressing on the right side of the eyelid, the light appears on the left side of the eye.) (3 pts)
6. Compare and contrast the way computers and humans process information. (2 pts)
7. Detail how Mrs. M. has been affected by a disruption to her visual processing system. (3 pts)
8. Why does stating that "we dream in color" support the idea that color is constructed in our minds? (2 pts)
9. What is an alternative explanation for why someone may be considered "color blind"? (2 pts)
10. How do the Young-Helmholtz trichromatic and opponent-process theory work together to process color? (2 pts)

In addition to the terms listed on page 172, include the following items:

64. cocktail party effect
65. change deafness
66. choice blindness
67. cornea
68. bipolar cells
69. ganglion cells
70. semicircular canals
71. vestibular sacs
72. nociceptors
73. tinnitus
74. synaesthesia
75. lightness/brightness constancy
76. relative luminance