1. How is light converted into a neural signal in the eye?

2. Briefly describe the key difference in structure and location between rods and cones in the retina.

3. How does the nervous system process light and darkness in the retina, which seems counter-intuitive?

4. How does light affect the release of neurotransmitters from photoreceptor cells?

5. Compare convergence patterns between rods and cones. How does it affect their acuity and sensitivity?

6. What is lateral inhibition, and what does it serve in visual processing?

7. How is visual information from each eye processed and organized as it travels to the brain?

8. What are the two main information processing streams in the visual cortex and what are their primary functions?

9. Explain the mechanisms of color vision. How do these mechanisms contribute to our perception of color and potential color-related phenomena like afterimages?