

Chapter 4

SENSATION AND PERCEPTION

Section 1: Sensation and Perception: The Basics

Section 2: Vision

Section 3: Hearing

Section 4: Other Senses

Section 5: Perception

Question: In what ways do sensation and perception contribute to an understanding of our environment?

SENSATION AND PERCEPTION CONTRIBUTE TO AN UNDERSTANDING OF OUR ENVIRONMENT

- Sensation provides information to the central nervous system about the physical environment
- Perception is the process through which people interpret sensory stimulation

Question: How does the eye enable vision?

THE EYE AND VISION

- Light enters the eye and then is projected onto a surface
- The amount of light that enters the eye is determined by the size of the pupil which adjusts automatically to the amount of light entering the eye
- Once light enters the eye, it encounters the lens which adjusts to the distance of objects by changing its thickness

Question: How does the eye enable vision?

THE EYE AND VISION *(continued)*

- These changes project a clear image of the object onto the retina, which consists of neurons that are sensitive to the light called photoreceptors
- Once the light hits the photoreceptors, a nerve carries the visual input into the brain where the information is relayed to the visual area of the occipital lobe

Question: How does the ear perceive sound?

HOW THE EAR PERCEIVES SOUND

- Sound enters the outer ear and is funneled to the eardrum
- Inside the middle ear, the hammer, anvil, and stirrup vibrate, transmitting the sound to the inner ear
- Within the brain, auditory input is projected onto the hearing areas of the cerebral cortex

Question: What are the chemical, skin, and body senses?

CHEMICAL, SKIN, AND BODY SENSES

- Smell – allows a person to taste
- Taste – sweetness, sourness, saltiness, bitterness, and umami (meaty or savory)
- Skin senses of pressure, temperature, and pain
- Vestibular and kinesthetic body senses

Question: What are the laws of sensory perception?

LAWS OF SENSORY PERCEPTION

- Closure – the tendency to perceive a complete or whole figure even when there are gaps in what your senses tell you
- Figure-ground perception – the perception of a figure against a background
- Proximity – the tendency to group together visual and auditory events that are near each other

Question: What are the laws of sensory perception?

LAWS OF SENSORY PERCEPTION *(continued)*

- Similarity – thinking of similar objects as belonging together
- Continuity – the tendency to group stimuli into continuous patterns

Question: What are the five types of sensation?

