

Absolute threshold

Absolute Threshold is the minimum amount of physical energy necessary to produce a sensation.

Accommodation

Accommodation is the process by which the eye increases optical power to maintain a clear image (focus) on an object as it draws near the eye.

Acuity

Acuity is the a aspect of visual perception having to do with the sharpness or resolution of images.

Adaptation

Adaptation is the reduced ability to sense a stimulus after prolonged exposure.

Afterimage

An afterimage is a visual sensation that persists after a stimulus is removed.

Ames room

The Ames room is an intentionally distorted room that interrupts perceptual constancies because none of the angles in the room are perpendicular.

Amplitude

Amplitude is a characteristic of the wave that describes its volume.

Auditory Nerve

The auditory nerve conducts information about the environment (in this case, acoustic energy that impinges on the external ear) to the brain.

Auditory ossicles

The ossicles consist of the three small bones, incus, malleus and stapes, that link the eardrum to the inner ear.

Basilar Membrane

The basilar membrane within the cochlea of the inner ear is a stiff structural element that separates two liquid-filled tubes that run along the coil of the cochlea, the scala media and the scala tympani.

Bipolar Cells

A bipolar cell is a type of neuron which has two extensions. Bipolar cells are specialized sensory neurons for the transmission of special senses. As such, they are part of the sensory pathways for smell, sight, taste, hearing and vestibular functions.

Blind spot

The blind spot is a portion of the retina lacking visual receptors.

Brightness

Brightness is the intensity of light reflected from or emanating from a surface.

Cochlea

The cochlea is the snail-shaped organ that makes up the inner ear.

Coding

Neural coding is a neuroscience-related field concerned with how sensory and other information is represented in the brain by neurons.

Color blindness

Color blindness is the total inability to perceive colors.

Complementary

Complementary colors are pairs of colors that are of "opposite" hue in some color model.

Conduction deafness

Conduction deafness is defined as poor transfer of sounds from the eardrum to the inner ear.

Cones

Visual receptors for colors and daylight visual acuity are called cones.

Convergence

The simultaneous turning inward of the two eyes as they focus on nearby objects is known as convergence.

Cornea

The cornea is the transparent front part of the eye that covers the iris, pupil, and anterior chamber.

Difference Threshold

The just noticeable difference, customarily abbreviated with lowercase letters as jnd, is the smallest difference in a specified modality of sensory input that is detectable by a human being.

Doctrine of Specific Nerve Energies

Doctrine of Specific Nerve Energies suggests that there is a qualitative differences between visual, auditory, tactile, olfactory, and gustatory sensations are determined by the particular sensory receptors that are stimulated.

Feature Detectors

Feature detectors are neurons in the visual cortex that receive visual information and respond to certain features such as lines, angles.

Fovea

The fovea is a small depression at the center of the retina containing only cones and providing the greatest sharpness of vision.

Frequency

Frequency is the number of occurrences of a repeating event, in our case a sound wave, per unit time.

Gustation

The sense of taste is called gustation.

Hue

Hue is one of the main properties of a color which describes its quality.

Iris

The iris is the colored circular muscle of the eye that opens and closes to admit more or less light into the eye.

Kinesthesia

Kinesthesia is the sensation and perception of bodily motion.

Lens

The lens is the structure of the eye that focuses the distal stimulus on the retina through accommodation.

Light Wavelength

Light wavelength refers to the frequency of the light that is sensed by the retina.

Loudness

Loudness is the volume of the wave that is sensed by the auditory system.

Nerve Deafness

Sensorineural hearing loss (nerve deafness) is a type of hearing loss in which the root cause lies in the vestibulocochlear nerve (Cranial nerve VIII), the inner ear, or central processing centers of the brain.

Olfaction

The sense of smell is called olfaction.

Olfactory area

The olfactory area is part of the frontal lobes where information on smell registers.

Olfactory Bulb

The olfactory bulb is a structure of the vertebrate forebrain involved in olfaction, the perception of odors.

Opponent-process theory (sensation)

The opponent process theory of color vision states that three coding systems (red or green, yellow or blue, black or white) are used by the visual system to analyze color information

Optic Chiasm

The optic chiasm is the part of the brain where the optic nerves partially cross.

Optic Nerve

The optic nerve is the nerve that transmits visual information from the retina to the brain.

Organ of Corti

The organ of Corti is the center part of the cochlea, containing hair cells, canals, and membranes.

Otolith organs

The otolith organs are part of the vestibular structures which are sensitive to movement, acceleration, and gravity.

Oval window

The oval window is a membrane on the cochlea connected to the third auditory ossicle.

Papillae

Papillae generally refers to the bud like structures of the tongue where the taste buds are located.

Pheromones

A pheromone is a chemical that triggers a natural behavioral response in another member of the same species.

Photoreceptor

Sensory receptors that are sensitive to light and specialized for the transduction of light stimuli into neural impulses area called photoreceptors.

Pinna

The pinna is the outer part of the ear.

Pitch

Pitch is associated with higher or lower tones; related to the frequency of sound waves.

Place theory

The place theory of hearing says that higher and lower frequency tones are detected at specific locations in the cochlea.

Primary Auditory Cortex

The primary auditory cortex is the region of the brain that is responsible for processing of auditory (sound) information.

Proprioception

Proprioception is the sense of the relative position of neighboring parts of the body.

Pupil

The dark spot at the front of the eye through which light passes is called the pupil.

Receptive Fields

The receptive field of a sensory neuron is a region of space in which the presence of a stimulus will alter the firing of that neuron.

Receptors

Receptors are any structure which, on receiving environmental stimuli, produces an action potential.

Retina

The light-sensitive layer of cells at the back of the eye is called the retina.

Retinal disparity

Retinal disparity is the small discrepancy in the images falling on each retina caused by separation of the eyes.

Rhodopsin

The photosensitive pigment in the rods is called rhodopsin.

Rods

The rods are the visual receptors that are responsive to dim light but produce only black and white sensations.

Saturation

Saturation is that quality of colors related to their being very pure, from a narrow area of the spectrum, or free from mixture with other colors.

Semicircular canals

The semicircular canals are fluid-filled vestibular canals and are the sensory organs for balance.

Sensation

Sensation is the immediate response in the brain caused by excitation of a sensory organ.

Sensory adaptation

Sensory adaptation is the decrease in sensory response to an unchanging stimulus.

Sensory coding

Sensory coding is the term used to describe the various codes used by the sense organs to transmit information to the brain.

Sensory neuron

A Sensory neuron is a nerve cell that carries information from the senses toward the central nervous system.

Skin receptors

Skin receptors are the sensory organs for touch, pressure, pain, cold, and warmth.

Skin senses

The Skin senses are the senses of touch, pressure, pain, heat, and cold.

Somatic Senses

The somatic senses are a diverse and rich totality of receptors. The impression of touch is formed from several modalities and as a result is often called a somatic sense.

Sound

Sound is the auditory sense.

Spatial Code

Spatial coding suggests that the location of firing neurons relative to their firing neighbors provide information about the stimulus.

Taste bud

Taste buds are the receptor organs for taste.

Timbre

timbre is the quality of a musical note or sound or tone that distinguishes different types of sound production, such as voices or musical instruments.

Topographical Representation

Topographical representations or sensory maps are found in the cortex, exist for each sense and are part of the sensory process.

Transduction

Transduction is transportation of stimuli to the nervous system.

Trichromatic theory

The trichromatic theory is the theory of color vision based on the assumption that there are three types of cones, with peak sensitivity to red, green, or blue.

Tympanic membrane

The eardrum is often called the tympanic membrane.

Vestibular senses

The vestibular senses are balance, body position, and acceleration.

Visible spectrum

The visible spectrum is the portion of the electromagnetic spectrum to which the eyes are sensitive.

Visual acuity

The clarity or sharpness of visual perception is called visual acuity.

Volley Theory

Volley theory suggests that the organ of corti in the cochlea that transduces the sound into action potentials must combine multiple stimuli along the cochlear nerve within a volley in order to encode high frequency auditory stimuli.

Wave Length

Wavelength is the distance between repeating units of a propagating wave of a given frequency.