terms you should encounter along the way →

neuron, axon, dendrite, axon hillock, axon terminal, vesicle, neurotransmitter, receptor, synaptic potential, action potential, membrane potential, equilibrium potential, ion concentrations, ion channels, myelin, salutatory conduction, node of Ranvier, excitatory, inhibitory, neuromodulator, depolarization, hyperpolarization, graded potential, all-or-none, generator potential, temporal integration, spatial integration,

proprioception, vestibular, ganglion cell, dorsal root ganglion, ventral spinal cord, dorsal spinal cord, interneuron, motor neuron, muscle spindle afferent, extrafusal muscle, intrafusal muscle, gamma motor neuron, contractile muscle, non-contractile muscle, golgi tendon organ, static response, dynamic response, ventral posterolateral thalamus, somatosensory cortex (SI), central sulcus, postcentral gyrus, the Pinocchio effect, hair cell, stereocilia, kinocilium, hair cell orientation, semicircular canals, otolith organs (saccule, utricle), orthogonal orientation, cupula, endolymph, rotational velocity, linear translation, gaze adjustment,

homunculus, whisker barrel cortex, Pacinian corpuscle, Merkl disc, Meissner corpuscle, hair cell (touch type), response field, two-point discrimination, receptor density, texture discrimination, frequency-dependent vibration sensitivity, grip control, microslips, layer-specific inputs (visual AND somatosensory systems), direction-specific surround inhibition, directional selectivity of touch,

area 17 = V1 = striate cortex = primary visual cortex, photoreceptors, rods, cones, receptor distribution, fovea, ON bipolar cells, OFF bipolar cells, ON ganglion cells, OFF ganglion cells, parvocellular ganglion cells, magnocellular ganglion cells, intercalated ganglion cells (koniocellular pathway), light-induced hyperpolarization, mechanisms for ON and OFF bipolar cell responses, surround excitation, lateral geniculate nucleus, six layers, egocentric, retinotopic map,

frequency, pitch, amplitude, loudness, timbre, complexity, frequency X power (i.e., amplitude), compressed vs. rarefied air, pinna, malleus, incus, stapes, tympanic membrane, oval window, cochlea, height localization of sound source, middle ear muscles, hair cell, basilar membrane, tectorial membrane, cochlear ganglion cell, cochlear nucleus neuron, stereocilia, kinocilium, Fourier transform, tonotopic map, preferred frequency, auditory response field, medial geniculate body, lateral superior olivary nucleus, medial superior olivary nucleus, interaural time difference (ITD), interaural level difference (ILD), order-dependent responses / temporal ordering of sounds, echolocation, constant frequency component (CF), frequency modulated component (FM), target distance, target size, target location, target velocity, delay specific activation (area 4 of bat cortex), Doppler shift (i.e., CF pitch shift)

ocular dominance map, orientation tuning map, koniocellular input map (blob map), map alignment, tuning curve, vertical vs. oblique electrode penetration, pinwheels and their centers, V4 (figure-ground), what pathway, where pathway, MT/MST, area VIP, IT = TE+TEO, object identification, location determination, prosopagnosia, optic flow, personal space

tabled information → properties of ion channels, mechanoreceptor types, retinal ganglion cell types
principles and concepts

‘the neuron doctrine’

‘the law of dynamic polarization’

static vs. dynamic responses = sustained vs. transient responses =
    slow vs. rapidly adapting = Merkl vs. Pacinian and Meissner =
    parvocellular-X vs. magnocellular-Y

‘topographic representation’

‘surround inhibition’

‘the cortical column’

‘the overlay of egocentric maps’

‘segregation’ vs. convergence (mixing) of sensory information types

‘retinotopic map’

‘ocular dominance columns/map’

‘orientation tuning map’

‘koniocellular input map’

‘what and where pathways’

‘object type specification vs. physical attribute generalization’