

Biological Psychology	A branch of psychology concerned with links between biology and behaviour
Neuron	A nerve cell, basic building block of the nervous system
Dendrite	Extensions of a neuron that receives messages and sends electrical impulses toward the cell body
Axon	Extension of a neuron, through which messages pass to other neurons or to muscles glands
Myelin Sheath	A layer of tissue encasing the fibers of many neurons; Enables much greater transmission speed of neural impulses
Action Potential	A neural impulse (a brief electrical charge) that travels down an axon; The action potential is generated by movement of positively charged atoms through channels in the axon's membrane
Threshold	The level of stimulation required to trigger a neural impulse
Synapse	The junction between the axon tip of the sending neuron and the dendrite or cell body of the receiving neuron Tiny gap: synaptic gap/cleft
Neurotransmitters	Chemical messengers that traverse the synaptic gaps between neurons and determine if a neuron will generate a neural impulse
Acetylcholine	A neurotransmitter that enables learning and memory and also triggers muscle contraction
Endorphins	Natural neurotransmitters linked to pain control and pleasure
Nervous System	The body's electrochemical communication network consisting of all the nerve cells of peripheral and central nerve cells
Central Nervous System (CNS)	The brain and spinal cord
Peripheral Nervous System (PNS)	The sensory and motor neurons that connect the central nervous system to the rest of the body
Nerves	Neural “cables” containing many axons. These bundled axons (part of PNS) connect the CNS with muscles, glands, and sense organs
Sensory Neurons	Neurons that carry incoming information from the sense receptors to the CNS
Motor Neurons	Neurons that carry outgoing information from the CNS to the muscles and glands
Interneurons	CNS neurons that internally communicate and intervene between the sensory inputs and motor outputs
Somatic(/Skeletal) Nervous System	The division of the PNS that controls the body's skeletal muscles
Autonomic Nervous System	The part of the PNS that controls glands and muscles of internal organs. Divided into 2 Parts: Sympathetic division arouses

	Parasympathetic division calms
Sympathetic Nervous System	Arouses the body, mobilizing its energy in stressful situations
Parasympathetic Nervous System	Calms the body, conserving its energy
Reflex	A simple, automatic, inborn response to a sensory stimulus
Neural Networks	Interconnected neural cells; With experience these networks can learn
Endocrine	The body's "slow" chemical communication system; a set of glands that secrete hormones into the bloodstream
Hormones	Chemical messengers (mostly manufactured by endocrine glands) that are produced in one tissue and affect another
Adrenal Glands	A pair of endocrine glands just above the kidneys. Secretes the hormones epinephrine (adrenaline) and norepinephrine (noradrenaline), which helps arouse the body in times of stress
Pituitary Glands	Endocrine system's most influential gland. Under influence of hypothalamus, it regulates growth and controls other endocrine glands
Lesion	Tissue destruction
Electroencephalogram (EEG)	An amplified recording of the waves of electrical activity that sweep across the brain's surface
Positron Emission Tomography (PET) scan	A visual display of brain activity that detects where a radioactive form of glucose goes while the brain performs a given task
Magnetic Resonance Imaging (MRI)	A technique that uses magnetic fields and radio waves to produce computer-generated images that distinguish among different types of soft tissue; allows us to see the structures
Functional Magnetic Resonance Imaging (fMRI)	A technique for revealing blood flow and brain activity by comparing successful MRI scans. MRI scans show brain anatomy fMRI scans show brain function
Brainstem	The oldest part and central core of the brain, responsible for automatic survival functions
Medulla	The base of the brainstem; controls heartbeat and breathing
Reticular Formation	A nerve network in the brainstem that plays an important role in controlling arousal
Thalamus	The brain's sensory switchboard; directs messages to sensory receiving areas in cortex and transmits replies to the cerebellum and medulla

Cerebellum	The “little brain” attached to the rear of the brainstem; its functions include processing sensory input and coordinating movement output and balance
Limbic System	System of neural structures at the border of the brainstem and cerebral hemispheres; associated with emotions like fear and aggression and drives such as those for food and sex. Includes hippocampus, <u>amygdala</u> , and <u>hypothalamus</u>
Amygdala	Two neural clusters linked to emotion
Hypothalamus	Directs several maintenance activities (eating, drinking, body temperature, etc.) helps govern the endocrine system via the pituitary gland, and is linked to emotion
Cerebral	Intricate interconnected neural cells that cover the cerebral hemispheres; the body's ultimate control and information processing center
Glial Cells (glia)	Cells in the nervous system that support, nourish, and protect neurons
Frontal Lobes	The portion of the cerebral cortex involved in speaking, muscle movements, and in making plans and judgements
Parietal Lobes	The portion of the cerebral cortex that receives sensory input for <u>touch</u> and body position
Occipital Lobes	The portion of the cerebral cortex which receives <u>visual</u> information
Temporal Lobes	The portion of the cerebral cortex that <u>auditory</u> information
Motor Cortex	An area at the rear of the frontal lobes that controls voluntary movement
Sensory Cortex	The area at the front of the parietal lobes that processes body touch and movement sensations
Association Areas	Areas of the cerebral cortex not involved in primary motor or sensory functions, but involved in higher mental functions (eg. Learning, remembering, thinking, speaking)
Broca's Area	Controls language expression; an area of the frontal lobe that directs muscle movements involved in speech
Wernicke's Area	Controls language reception; a brain area involved in language comprehension and expression
Aphasia	Impairment of language, usually caused by left hemisphere damage either to Broca's area or to Wernicke's area
Plasticity	The brain's capacity for modification (evident in brain reorganization due to damage and experiments on effects of experience on brain development)

Corpus Callosum	The large band of neural fibers connecting the two brain hemispheres and carrying messages between them
Split Brain	A condition where the two hemispheres of the brain are isolated by cutting the connecting fibers between them