

1. meninges	thick sheath of connective tissue covering brain
2. functions of meninges	protect the brain, keep it anchored within skull, resorb cerebrospinal fluid
3. parasympathetic nervous system	("rest and digest") conserve energy, resting states; reduce heart rate, constrict bronchi, stimulate bile release, contracts bladder, constricts pupils, stimulates flow of saliva
4. 3 layers of meninges	dura mater, arachnoid mater, pia mater
5. sympathetic nervous system	stress ("fight or flight")- increase heart rate, divert blood to muscles, increase blood glucose levels, relax bronchi, decrease digestion and peristalsis, dilate eyes to max light intake
6. cerebrospinal fluid	aqueous solution where brain and spinal cord rests; produced by specialized cells that line the ventricles of the brain
7. main neurotransmitter for parasympathetic nervous system	acetylcholine
8. ventricles of brain	internal cavities
9. three subdivisions of human brain	hindbrain, midbrain, forebrain
10. brainstem	hindbrain and midbrain
11. limbic system	forebrain; group of neural structures primarily associated with emotion and memory
12. hindbrain	controls vital functioning necessary for survival (balance, breathing, digestion, sleeping)
13. medulla oblongata	lower brain structure, responsible for regulating vital functions such as breathing and heart rate
14. pons	sensory and motor pathways between cortex and medulla

15. cerebellum	posture and balance and coordinates body movements
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16. which part of the brain does alcohol effect?	cerebellum
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17. midbrain	receives sensory and motor information from rest of body
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18. colliculi	prominent nuclei in the midbrain
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19. superior colliculus	receives visual sensory input
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20. inferior colliculus	receives auditory sensory input
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21. forebrain	associated with complex perceptual, cognitive, and behavioral processes
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22. thalamus (forebrain)	sensory "way station"; relays incoming sensory information (except smell) to appropriate areas of cerebral cortex
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23. neuropsychology	study of functions and behaviors associated with specific regions of the brain
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24. EEG	placing several electrodes on the scalp to detect broad patterns of electrical activity in the brain
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25. regional cerebral blood flow (rCBF)	detects increased blood flow to different parts of brain; patient inhales radioactive gas
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26. Computed tomography (CT) scan	multiple x-rays are taken at different angles and processed by computer to cross-sectional slice images of tissue
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27. Positron emission tomography (PET) scan	radioactive sugar is injected and absorbed into body; dispersion and uptake throughout brain is imaged
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28. Magnetic resonance imaging (MRI)	magnetic field to interact with hydrogen and map out H dense regions
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29. fMRI	uses magnetic field to interact with H; measure changes associated with blood flow (typically coupled with neuronal activation)
30. William James	functionalism: consciousness helps people adapt to their environment, key to understanding the human mind and behavior was to study the processes of how and why the mind works as it does, rather than to study the structural contents and elements of the mind
31. Franz Gall	developed phrenology: part of brain responsible for particular trait would expand if well-developed, so use feeling of skull to measure psychological attributes - false but important for linking psychology and brain anatomy
32. Pierre Flourens	extirpation/ablation (surgical removal of body part) of animal brains - assertion that brain has specific parts for specific functions
33. John Dewey	functionalism; wrote article criticizing concept of reflex arc (breaks reflex response into discrete parts)
34. Paul Broca	studied behavioral deficits in people with brain damage; broca's area - man who couldn't talk because of lesion in brain
35. Hermann von Helmholtz	measured speed of nerve impulse in terms of reaction time; transition of psychology into field of natural sciences
36. Sir Charles Sherrington	inferred existence of synapses; thought synaptic transmission was electrical (but its chemical)
37. Peripheral nervous system	everything besides brain and spinal cord; consists of somatic and autonomic nervous system
38. Somatic nervous system	sensory (through afferent fibers) and motor (efferent fibers) neurons distributed throughout skin, joints, and muscles
39. 3 kinds of nerve cells in nervous system	sensory neurons (afferent), motor (efferent), interneurons
40. Interneurons	found between other neurons and are the most numerous

41. autonomic nervous system	involuntary muscles - heart beat, respiration, digestion, granular secretions, body temp; consists of parasympathetic and sympathetic
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42. Motor neurons - afferent or efferent?	Efferent neurons
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43. Sensory neurons	transmit information from receptors to spinal cord and brain
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44. Sensory neurons - afferent or efferent?	afferent
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45. Reflex arc	neural circuit responsible for reflexive behavior
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46. Central nervous system	brain and spinal cord
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