

Twenty parts of the brain and their functions



**ASSIGN
BUSTER**

Twenty Parts of the Brain and Their Functions

1. Pons – A structure of the brain stem that is involved in sleeping, waking, and dreaming.
2. Medulla – A structure of the brain stem that is responsible for automatic bodily functions, such as breathing and heart rate.
3. Reticular Activating System – The RAS screens incoming information and arouses the cortex when something happens that requires their attention.
4. Cerebellum – The cerebellum functions as a " lesser brain" It contributes to our sense of balance and coordinates the muscles so their movements are smooth and precise. The cerebellum is involved with remembering simple skills and acquired reflexes. It also contributes to complex cognitive tasks such as problem solving.
5. Thalamus – The thalamus functions as a director for the sensory messages except the sense of smell. The thalamus transmits the sensory messages as they are received to the cerebral cortex.
6. Hypothalamus – The hypothalamus is involved in behaviors necessary for survival such as, hunger, thirst, emotion, sex, and reproduction. It regulates the body temperature, controls the operations of the autonomic nervous system, and contains the biological clock controlling the body's daily rhythms.
7. Pituitary Gland – The pituitary gland functions as the " master" gland. The hormones it secretes affect many other endocrine glands. The pituitary gland operates under the direction of the hypothalamus.
8. Limbic System – The limbic system is a group of brain areas involved in emotional reactions and motivated behavior.
9. Amygdala - The amygdale is responsible for evaluating sensory information to determine its emotional importance and contributing to the decision to approach or withdraw from a person or situation. It also plays a role in emotional memory and mediating anxiety and depression.
10. Hippocampus – The hippocampus compares sensory

information received to what the brain knows what to expect from the world. It also enables us to form spatial memories.

11. Cerebrum – The cerebrum is where higher forms of thinking take place. It is in charge of most sensory, motor, and cognitive functions.

12. Cerebral Hemispheres – The two halves of the cerebrum, right and left, each responsible for the opposite side of the body.

13. Corpus Callosum – A large band of nerve fibers that connect the two cerebral hemispheres.

14. Cerebral Cortex – The cerebral cortex is a collection of several thin layers of densely packed cells that cover the cerebrum. It is largely responsible for higher mental functions.

15. Occipital Lobes – The occipital lobes contain the visual cortex, where visual signals are processed.

16. Parietal Lobes – The parietal lobes contain the somatosensory cortex which receives messages about pressure, pain, touch, and temperature from the body. Parts of the parietal lobes are involved in attention and various mental operations.

17. Temporal Lobes – The temporal lobes are involved in memory, perception, and emotion. They also contain the auditory cortex which processes sounds.

18. Wernicke's Area – An area of the left temporal lobe that is involved in language comprehension.

19. Frontal Lobes – The frontal lobes contain the motor cortex, which issues orders to the 600 muscles of the body that produce voluntary movement. They are also involved in emotion, the ability to make plans, creative thinking, and initiative.

20. Broca's Area – An area of the frontal lobe that handles speech production.