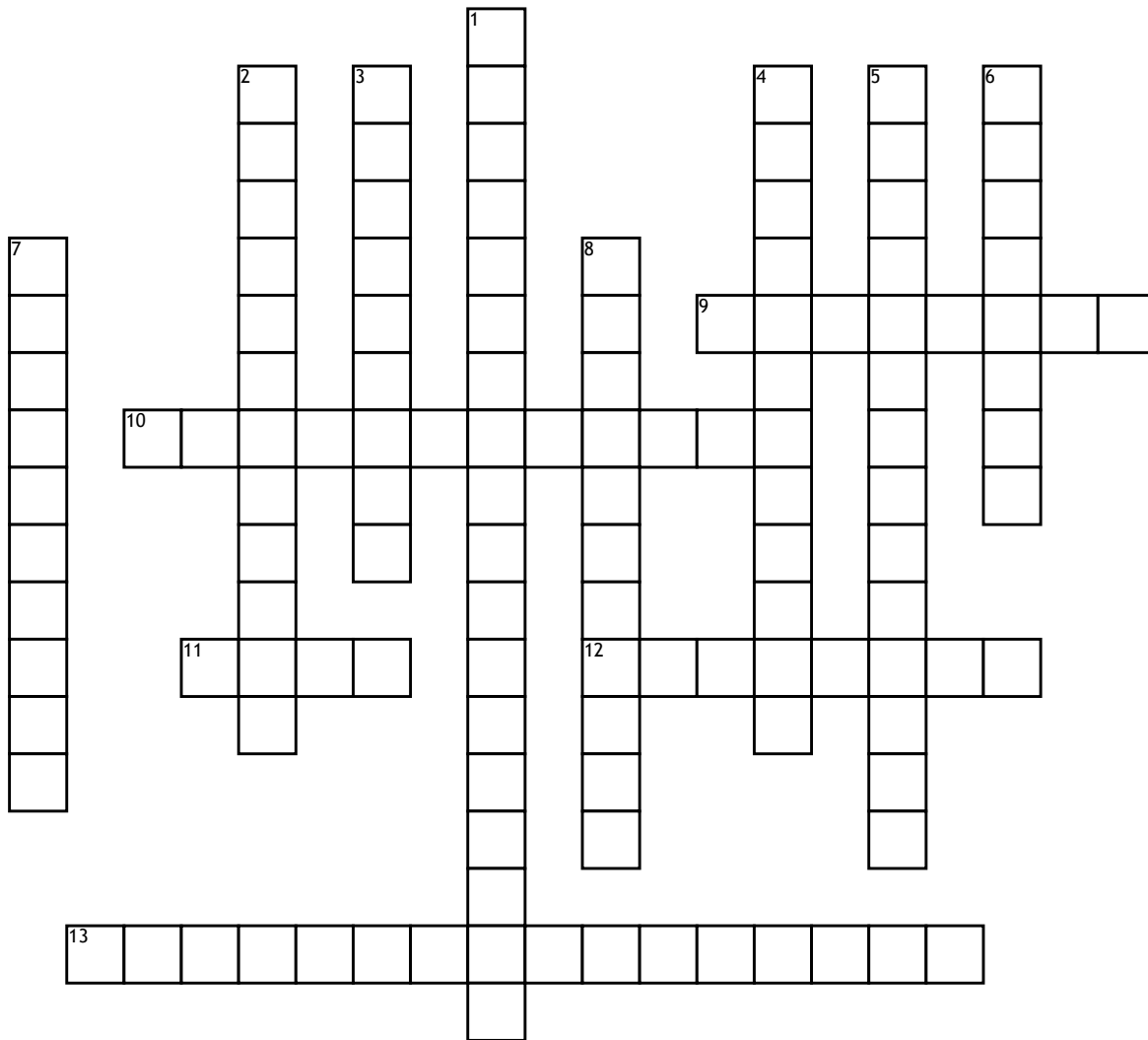


Divisions of the CNS and Functions



Across

9. mediates visual and auditory reflexes, contains the substantia nigra involved in Parkinson's disease

10. *responsible for reflex control (not conscious control) of many homeostatic variables such as temperature, hunger, appetite, thirst, pain. * also influences moods, emotions, and sex drive * controls the pituitary gland by way of various 'releasing' hormones

11. reflex control of respiratory depth. Controls whether you breathe shallow or deep.

12. consists of the cerebral cortex, basal nuclei and limbic system.

13. *reflex control of Heart Rate, Respiratory Rate, and also Blood Pressure by adjusting the diameters of blood vessels. *also reflex control of swallowing, vomiting, sneezing, coughing. * motor fibers from each hemisphere of the cerebral cortex cross over to the opposite side of the spinal cord. This results in the right hemisphere controlling the left side of the body & vice-versa.

Down

1. *consists of neurons scattered throughout the brainstem. Visual, auditory, and somatic sensory impulses pass through here on their way to the cerebrum. See image p. 455. *acts like a 'filter' limiting the amount of information reaching the cerebrum thereby controlling our sleeping-waking cycles and determining our level of mental alertness. *filters out repetitive stimuli (acts sort of like a "mute" button). Hallucinatory drugs such as LSD inhibits this and other filters (such as the thalamus) allowing the brain to be flooded with sensory input.

2. consists of the thalamus and hypothalamus.

3. consists of the midbrain, pons, medulla oblongata and the reticular formation.

4. sometimes called the 'emotional brain' because it controls emotional responses to bad news, good news, pain, pleasure, etc.

5. *the outer layer of each hemisphere - consists mostly of unmyelinated cell bodies and dendrites *responsible for conscious perception of sensory info. *also conscious thought, reasoning, problem solving, etc. *also conscious control of motor messages to skeletal muscles for body movement and speech.

6. relays incoming impulses to the appropriate part of the cerebral cortex. Acts like a filter controlling the amount of information reaching the cerebral cortex.

7. "Fine tunes," through inhibition (IPSPs), impulses from the motor cortex to skeletal muscles allowing us to produce smooth, coordinated, synchronized contractions.

8. *areas deep within each hemisphere (see Fig 12.10) *helps to control skeletal muscle activity by inhibiting (with IPSPs) unintentional movement