## **Investigation 3.13A**

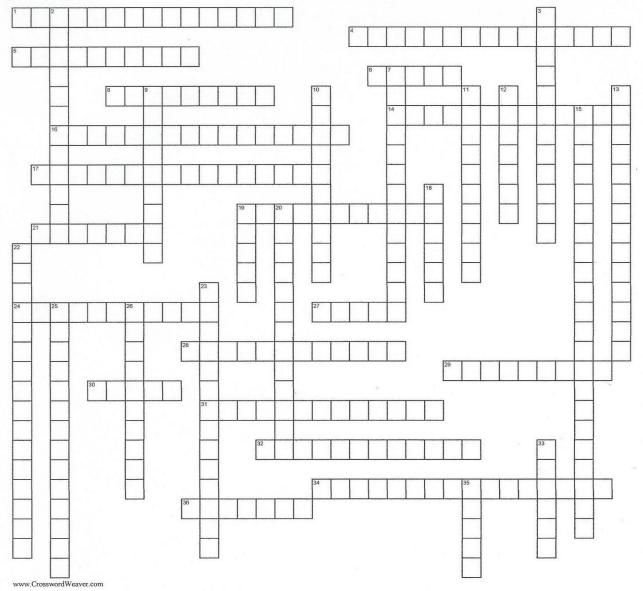
Crossword 3.13A

The Brain

P.\_\_\_Date:\_\_\_\_

Dr. \_\_\_\_\_

**Directions:** Use the highlighted terms in the chapter to solve the puzzle. Most clues come from the chapter text, but some require outside investigation. Omit spaces or dashes between words.



## ACROSS

- 1 a pulse of electrical current that travels through the neurons of brain cells
- 4 the way neurons decide how to adjust their sensitivity to inputs
- 5 one half or one side of the brain6 in medical terminology meaning large
- enough to study using only your eyes 8 located below cerebellum; manages your autonomic functions such as
- breathing, digestion, and heart rate 14 to become different during the
- process of growth or development 16 a test where a fine needle removes a sample of abnormal tissue to determine the presence or absence
- of cancer cells 17 the type of processes used to perform work inside the brain
- 19 the portion of your brain controlling your emotions, determination,

passions, and hopes

- 21 the "wires" in the brain that transport electrical signals throughout the body; they have the ability to learn and adapt to an individual's needs
- 24 to rearrange the settings or elements; the constant adjustment of our neural networks
- 27 send signals from their cell body towards the synapse
- 28 the brain's appearance from looking at the outside
- 29 receive input from axons at synapses and send to their neural cell body
- 30 the four sections of the human brain31 doctors who operate on the brain
- 31 doctors who operate on the brain32 doctors who study the brain and
- diagnose abnormalities
- 34 the arrangement of our neural networks at a particular time
- 36 the view visualized looking from the side

## DOWN

- 2 brain area that manages your hearing and speech
- 3 brain area maintaining highest level of sensory and motor awareness of all your body's sensations and movement
- 7 used in scanners to observe increased activity in various parts of the brain
- 9 the scientist who studies human anatomy
- 10 type of brain cells that direct signals where you want them to go
- 11 area that manages the coordination of all muscular activity of your body
- 12 the number of neural connections in a given space that may define one's ability to perform a task
- 13 the scientist who studies the human brain
- 15 the ability to computers to perform

- tasks normally requiring human intelligence
- 18 the relative important of a piece of data compared to another
- 19 the period of our development when our cells differentiate, multiply, and interconnect
- 20 brain area processing visual input from your eyes
- 22 the ability of childrens brains to heal following injury
- 23 how neurons work together
- 25 the tangled-rope appearing brain surface of the parietal, temporal, and occipital lobes
- 26 a negative input or effect
- 33 a blockage of an artery or the rupture of a blood vessel in the brain resulting in disability or death
- 35 to change in order to improve performance