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| --- | --- | --- |
| **Ahliah School** | **C:\Users\hp\Documents\Ahliah\Arch\2009-2010\logo 2.jpgBrain**  | Academic Year 2011-2012 |
| Middle & Upper Division | Biology Webquest |
| Science Department | Mrs. Heba Daouk |
| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Grade 10HS | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**INTERNET RESEARCH ON THE BRAIN**

Go to the NEUROSCIENCE FOR KIDS page at <http://faculty.washington.edu/chudler/neurok.html>.

Use the following questions to navigate through the pages. Record the information to the questions as you find it.

*1. On the* [*"Neuroscience For Kids" homepage*](http://faculty.washington.edu/chudler/neurok.html)*, scroll down to the Table Of Contents. Click on the colored words,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *This will bring you to a variety of topics. Scroll down to the section on "THE BRAIN." Click on the colored words* [*"DIVISIONS OF THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/nsdivide.html) *Answer the following questions from the information there...*

What are the two major subdivisions of the nervous system?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nervous system \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nervous system

What is another name for a "nerve cell"? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What two structures make up the **central** nervous system?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

About how much does the brain weigh?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

About how many nerve cells are in the brain? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*2. From this page click on the colored words,* [*"BRAIN FACTS AND FIGURES."*](http://faculty.washington.edu/chudler/facts.html) *Using the data on this page, answer the following questions:*

What animal has the largest brain? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What animal has the smallest brain?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Does brain size correlate to intelligence? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*3. Go back to the page,* [*"DIVISIONS OF THE CENTRAL NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/nsdivide.html) *Scroll down to the "HEAR IT" section. Play the words, AMYGDALA, CEREBELLUM, AND DIENCEPHALON. Try to say these words yourself!!!*

Continue scrolling down to the section called "BRAIN STRUCTURES"

Where is the cerebral cortex located? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is a groove in the cortex called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is a bump in the cortex called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is one area of the brain that is responsible for memory and learning? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Label the parts of the brain pictured below:



*4. Go back to the page* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"OUR DIVIDED BRAIN."*](http://faculty.washington.edu/chudler/lobe.html)

What are the four major lobes of the brain?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*5. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"ONE BRAIN OR TWO?"*](http://faculty.washington.edu/chudler/split.html)

Name two functions that are dominant on the left brain side of the brain.

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Name two functions that are dominant on the right side of the brain.

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What structure connects the right and left cerebral hemispheres?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What side of the brain controls language in most people?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List 4 famous left-handed folks

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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*6. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"HE BRAINS, SHE BRAINS."*](http://faculty.washington.edu/chudler/heshe.html)

Is the proportion of brain weight to body weight different for men and women? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What happens to mens' brains as they age?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*7. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"BRAIN DEVELOPMENT."*](http://faculty.washington.edu/chudler/dev.html)

When does the nervous system begin to form?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*8. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"THE VENTRICLES AND CSF."*](http://faculty.washington.edu/chudler/vent.html)

What is cerebrospinal fluid (CSF)?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name at least 2 functions of CSF.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*9. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"THE BRAIN DURING SLEEP."*](http://faculty.washington.edu/chudler/sleep.html)

What instrument is used to measure brain activity?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

About how much of your life do you spend asleep?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What does REM stand for?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*10. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"BRAIN FITNESS - YOUR GUIDE TO GOOD HEALTH."*](http://faculty.washington.edu/chudler/brainfit.html)

List three tips given on this page for good health.

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*11. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"THE BRAIN VS. THE COMPUTER."*](http://faculty.washington.edu/chudler/bvc.html)

Which sends signals faster, a brain or a computer?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*12. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Click on the colored words,* [*"WHAT BECAME OF EINSTEIN'S BRAIN?"*](http://faculty.washington.edu/chudler/ein.html)

When did Einstein die?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Who removed his brain?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Where is the brain now?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*13. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Scroll down to the bottom of the page where it says,* [*"THE EFFECTS OF DRUGS ON THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html#drug) *Click on the colored word* [*"ALCOHOL."*](http://faculty.washington.edu/chudler/alco.html)

What kind of drug is alcohol?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What term is given to drugs that kill brain cells?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*14. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Scroll down to the bottom of the page where it says,* [*"THE EFFECTS OF DRUGS ON THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html#drug) *Click on the colored word* [*"CAFFEINE."*](http://faculty.washington.edu/chudler/caff.html)

Which soft drink has the most caffeine per serving?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are two negative side effects of caffeine?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*15. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Scroll down to the bottom of the page where it says,* [*"THE EFFECTS OF DRUGS ON THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html#drug) *Click on the colored word* [*"COCAINE."*](http://faculty.washington.edu/chudler/coca.html)

Is cocaine an addicting drug?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What organ does it affect other than the brain? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*16. Go back to the page,* [*"EXPLORE THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html) *Scroll down to the bottom of the page where it says,* [*"THE EFFECTS OF DRUGS ON THE NERVOUS SYSTEM."*](http://faculty.washington.edu/chudler/introb.html#drug) *Click on the colored word* [*"MARIJUANA."*](http://faculty.washington.edu/chudler/mari.html) *Scroll down and click on the colored words, "MARIJUANA: FACTS FOR TEENS."*

List two short-term effects of marijuana use:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List two possible long-term effects of marijuana use:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What effects may marijuana have on the babies of pregnant women who smoke marijuana? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. Open the The Split Brain Experiment ( http://nobelprize.org/educational\_games/medicine/split-brain/ )

What exactly is a "split brain" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Describe a person with a split brain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_