

Neuroscience for Kids - Scavenger Hunt

This lesson was developed by Ms. Susan Songstad (Shoreline, WA)

<http://faculty.washington.edu/chudler/neurok.html>

This worksheet is designed to allow you to explore this web site: "Neuroscience for Kids." This site has many creative games, activities, experiments and demonstrations that will allow you to explore the nervous system of man and animals. This site also has links to many other exciting and informative resources.

Print out this worksheet and follow the directions. Write your answers directly on this worksheet.

The first section (<http://faculty.washington.edu/chudler/introb.html>) of this site explores the nervous system through seven different categories. Choose three of the seven areas to explore and give a brief description in the space below of what you find out. Categories:

<p>1. The Brain: Common questions about the brain and neuroscience Divisions of the Brain Our divided Brain: lobes of the Brain Functional Divisions of the Cerebral Cortex The Brain Right Down the Middle Brain Size/Cerebral Cortex 1 Brain or 2? Split Brain Experiments She Brains - He Brains Brain Development The Cranial Nerves Your Brain's Home: The Skull The Coverings (Meninges) of the Brain Blood Supply of the Brain The Ventricles and CSF Directions and Planes of Section Compare the brains of nine different species 4 more brains: human, monkey cat and mouse The Brain During Sleep How Much do Animals Sleep? Brain Fitness - Your Guide to Good Brain Health The Brain Vs The Computer Neuroethics Disorders of the Brain</p> <p>2. The Spinal Cord: Our Divided Spinal Cord: Segments of the Spinal Cord The Knee Jerk Reflex (monosynaptic reflexes)</p> <p>3. The Peripheral Nervous System: Autonomic Nervous System</p>	<p>4. The Neuron: Billions and Billions of Cells: Types of Neurons Making Connections Gallery of Neurons The Synapse - Up Close and Personal Lights, Camera, Action Potential Glia: The Forgotten Brain Cell Dangerous Chemicals: Neurotransmitters and Neuroactive Peptides Chemical Weapons: Nerve Agents Conduction Velocity Salty What? Saltatory Conduction</p> <p>5. Sensory Systems: The skin and its Sensory Receptors Pain and Why it Hurts The Tooth I Spy...The Eye The Retina The visual Pathway Do you wear glasses. Find out Why! Eye Safety Tips Here Ye, Here Ye - The Ear How the Nose Knows That's Tasty Color Affect on Taste Animal Senses</p>	<p>6. Neuroscience Methods and Techniques: The 10-20 system of Electrode Placement Common Methods Brain Image Methods Glossary Statistics: By the Numbers Careers in Neuroscience</p> <p>7. Effects of Drugs: Alcohol Amphetamines Barbiturates Caffeine Cocaine Ecstasy Heroin Inhalants LSD Marijuana Nicotine Rohypnol 1,4-Butanediol PCP GHB Hallucinogenic Mushrooms</p>
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1. Name of Site #1 that you explored: _____

Brief description of information found:

2. Name of Site #2 that you explored: _____

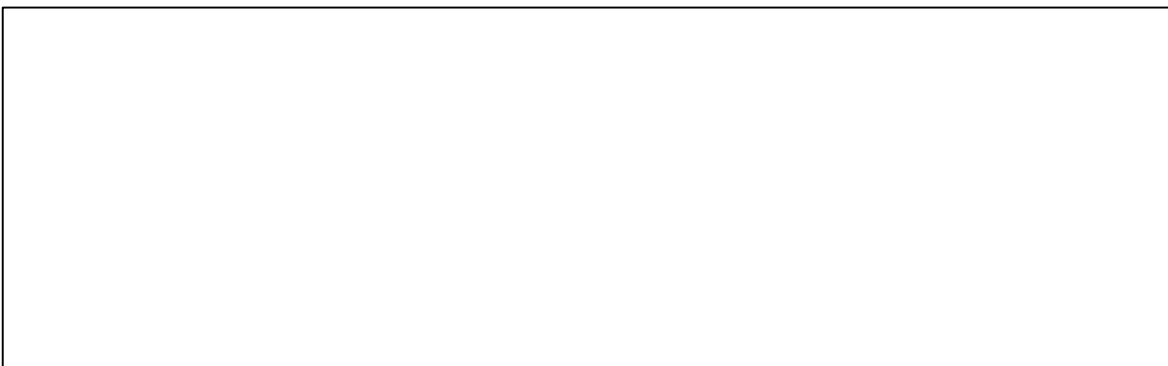
Brief description of information found:

EXPERIMENTS AND ACTIVITIES (<http://faculty.washington.edu/chudler/experi.html>)

Modeling the Nervous System (<http://faculty.washington.edu/chudler/chmodel.html>) - Questions 3-11 will be found under this heading.

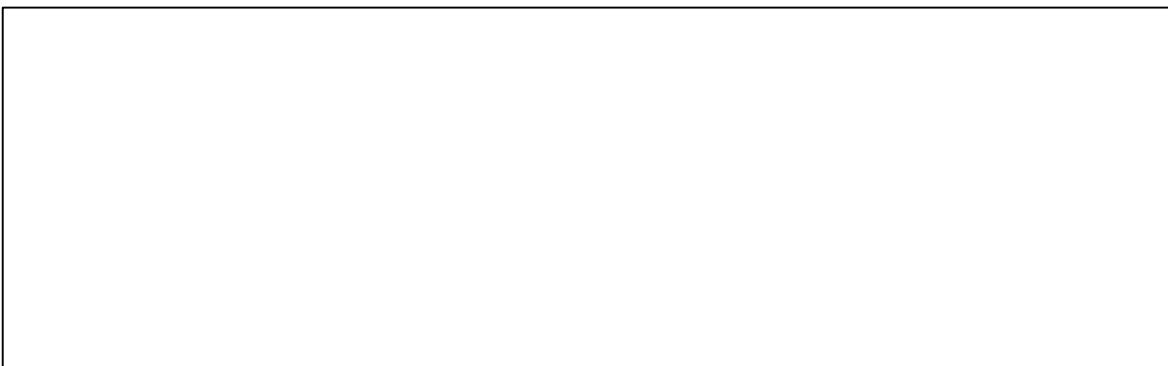
3. Find an activity that teaches the structure and function of a neuron. Write name and location of the activity: _____

4. Draw and label the structures of a neuron in the space below.



5. Find an activity that models the human brain. On average, how much does a human brain weigh?

6. Find an activity that will help you name the different lobes of the brain. List the lobes of the brain in the space below:



7. Find another activity that will help you answer this question: How many bones are in the spinal column?

8. How is the spinal column related to the nervous system?

Scroll down further and look for - Message Transmission Activity and fill in the blank:

9. Messages travel in the nervous system speeds up to _____miles per hour.

Look for Mr. Egghead and answer the following questions:

10. What is CSF?

11. Name one function of CSF:

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **BRAIN GAMES** (<http://faculty.washington.edu/chudler/chgames.html>). Questions 12-13 will be found under this heading.

12. Go to Colors/Colors at (<http://faculty.washington.edu/chudler/colors3.html>), do the activity and describe the Stroop effect:

13. Chose 2 **Brain Facts** that make you go "hmmmmmmm" and write them down here:

a)

b)

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **The Senses** (<http://faculty.washington.edu/chudler/chsense.html>). Question 14 will be found under this heading.

14. Describe two amazing animal senses:

a)

b)

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **Reflexes** (<http://faculty.washington.edu/chudler/chreflex.html>). Questions 15-17 will be found under this heading.

Chose and review one site in this section.

15. Which site did you view?

16. What do you especially like about this site?

17. What ideas changes/additions/comments do you have to share about this?

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **Sleeping and Dreaming** (<http://faculty.washington.edu/chudler/chsleep.html>). Questions 18-20 will be found under this heading.

Chose and review one site in this section.

18. What site did you view?

19. What do you especially like about this site?

20. What ideas changes/additions/comments do you have to share about this?

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **Biological Rhythms** (<http://faculty.washington.edu/chudler/clock.html>). Questions 21-22 will be found under this heading.

21. Define circadian rhythms:

22. Give two examples of circadian rhythms:

a)

b)

Go back to Experiments and Activities (<http://faculty.washington.edu/chudler/experi.html>) and locate the section called **Disorders of the Brain** (<http://faculty.washington.edu/chudler/disorders.html>). Question 23 will be found under this heading.

23. Chose one disorder from the list and describe it here:

This is your chance to just look around these pages on your own and describe what cool information you can find. List "What's Cool" below, on the back of this page, or on a piece of paper.