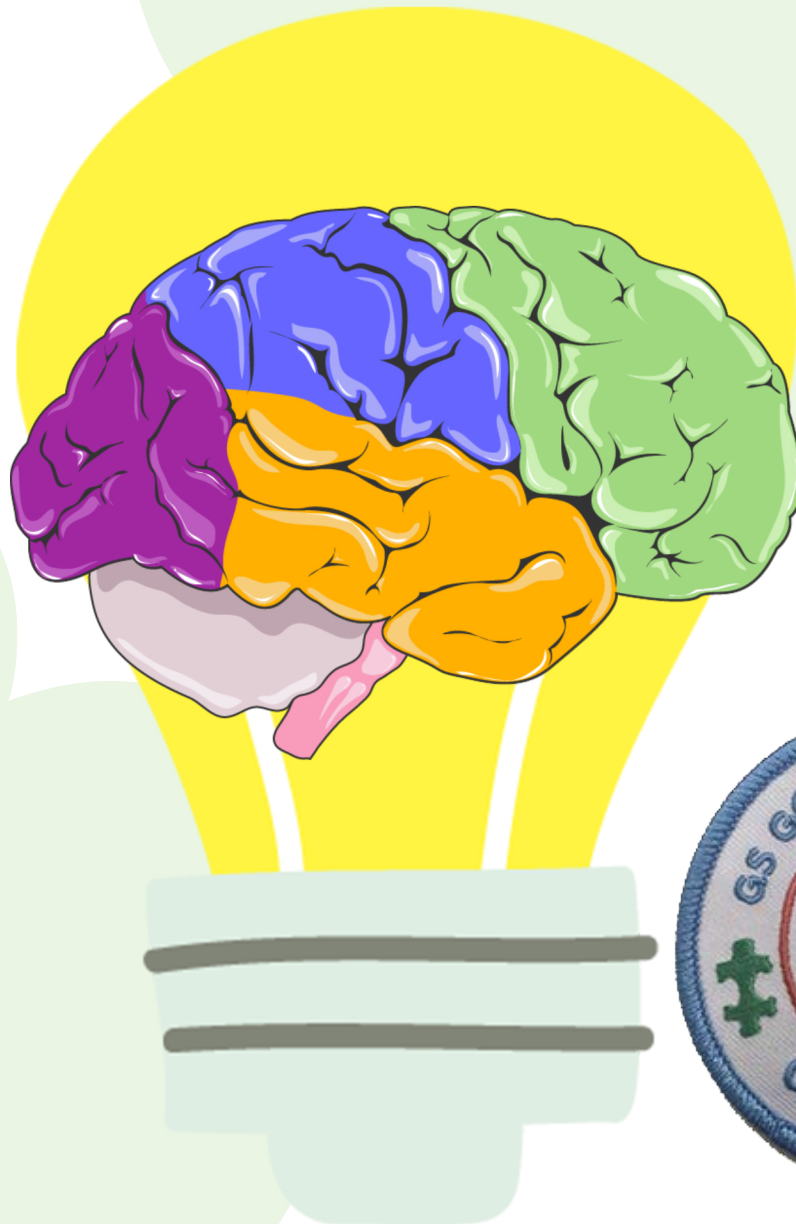


Girl Scouts Go To **Neuron** **School**

Activity Packet



Girl Scouts go to Neuro School

Welcome to the **Girl Scouts Go to Neuro School** council patch activity! Girl Scout Seniors and Ambassadors have access to 11 videos about the brain and nervous system, provided by the students and professors at UB's school of Neurology. In this program, girls will complete 9 out of 14 possible activities that dive into the functions and processes of the brain. This patch can be earned completely online. Not only will the girls earn a council patch for completion, but they will have an opportunity to learn from real neurologists, and be able to think like neurologists themselves!

Instructions: This activity is split into four parts, each with separate activity choices and corresponding videos. Click on the names of the videos in order to stream them. Once viewed, pick your activities in order to move on to the next section.

Here is the **link** to a PDF where you can complete the activities, or print it out and write your responses by hand:

Part 1: Introduction to Neurology

In part one of the Neuro School Patch, there are 4 videos that go into depth about what we know about the nervous system and how it is studied. There are **four** simple and fun activities for Part 1. Please choose and complete **at least three** to move on to part two.

- ❖ Create your own glossary of terms that you've learned in the videos so far
- ❖ Label the hemispheres of the brain
- ❖ Draw and briefly describe a brain that has been negatively impacted by a disease
- ❖ Label the parts of a neuron

Videos

[Sheehan Garrett Optogenetics.mp4 | Powered by Box](#)

[Cohan Chris BrainMuseum.mp4 | Powered by Box](#)

[Dhimal Narayan Nervous System and Glia.mov | Powered by Box](#)

Have any questions?

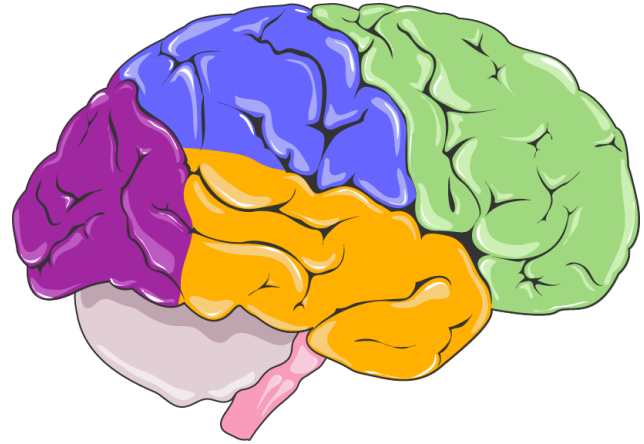
Contact Customer Care at
customer care@gswny.org or
1-888-837-6410.



Jacobs School of Medicine and Biomedical Sciences
Neuroscience Program
University at Buffalo

Part 2: Traveling Through the Brain

In the second part of the neuro patch, you will take a journey through three different parts of the brain, as if they are vacation spots. As the activity for part 2, please **pick one** of the locations that are explored (cerebellum, pons or inferior colliculus) and create a travel guide using the template that is provided.



Videos

[Traveling on my Mind: Ep. 5 The Cerebellum - YouTube](#)

[My Trip to the Inferior Colliculus \(And an EXCITING ANNOUNCEMENT!\) - YouTube](#)

[Welcome to the Pons](#)

Part 3: Things that Affect the Brain

In part three of the neuro patch, you will explore some specific functions and processes of the brain, in addition to learning about things that effect it. There are **three** activities for this section that each correspond with a different video. Please **complete two** in order to move on to the final part.

- ❖ Neurotransmitter/Drug Matching activity
- ❖ Create a simple flyer/infographic that explains the effect of trauma on the brain. Be creative and use information from the video. You can use anything, including words, drawings, or pictures. There is no wrong answer!
- ❖ Pain and temperature activity

Videos

[Temperature and Pain by Rasheen Powell](#)

[Neuropharmacology with Sabrina Swenson](#)

[Childhood Trauma with Kristen Woodhouse](#)

Part 4: Things that Affect the Brain

You've made it to the final part of the neuro patch! In part 4, you get a chance to think about everything you've learned from UB Neuro School, get creative, and ask questions. There are **five** creative activities to choose from. Please complete **at least 3** in order to complete your neuro school patch!

- ❖ Write down your five favorite facts that you've learned from the UB Neuro School
- ❖ Write down any questions that you have for the students and professors at UB Neuro School
- ❖ Using the information from the videos, or your own research, design a flyer or poster that supports and promotes brain health
- ❖ Using the information from the videos, or your own research, design a flyer or poster for the UB School of Neurology
- ❖ Using information from the videos or your own research, create a research question or topic that you'd like to study if you were a neurologist.

Videos

Kristen Woodhouse Q and A

Congratulations, you have completed the UB Neuro School Council Patch!

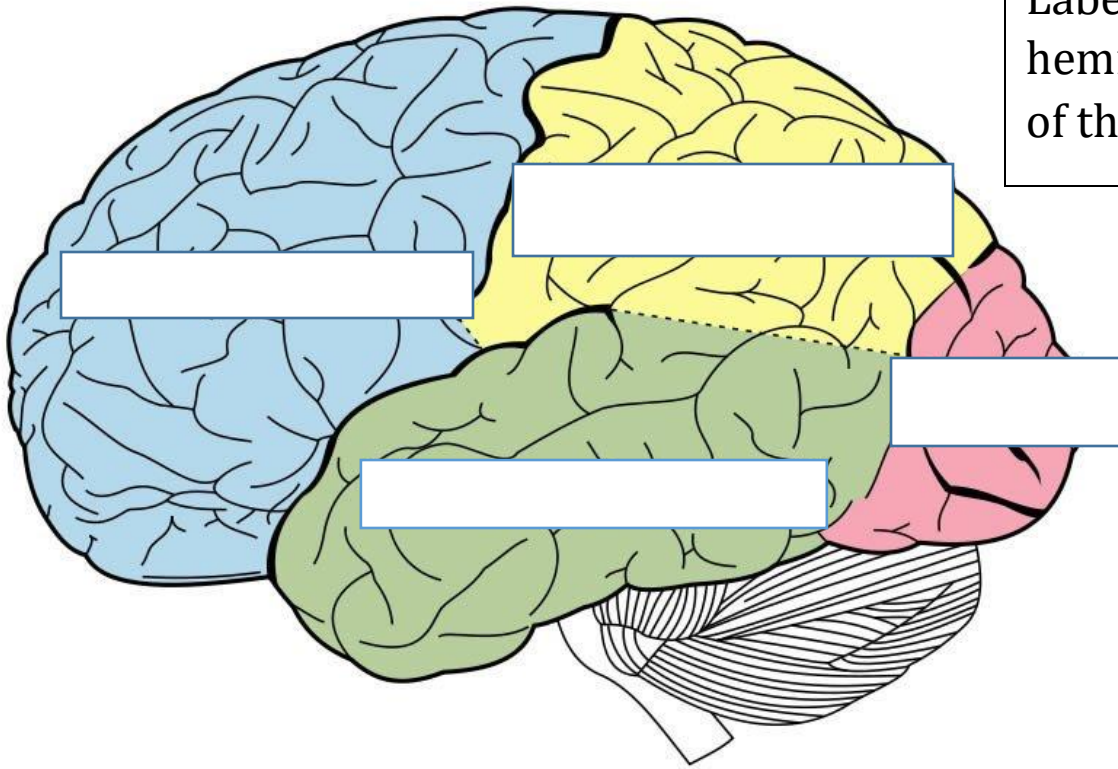
Here is how to get the Neuro Patch:

Thank you to the students and professors of the UB School of Neurology for providing these videos and giving girl scouts a chance to think like neurologists.

Cool Neuroscience Resources for Kids:

References:

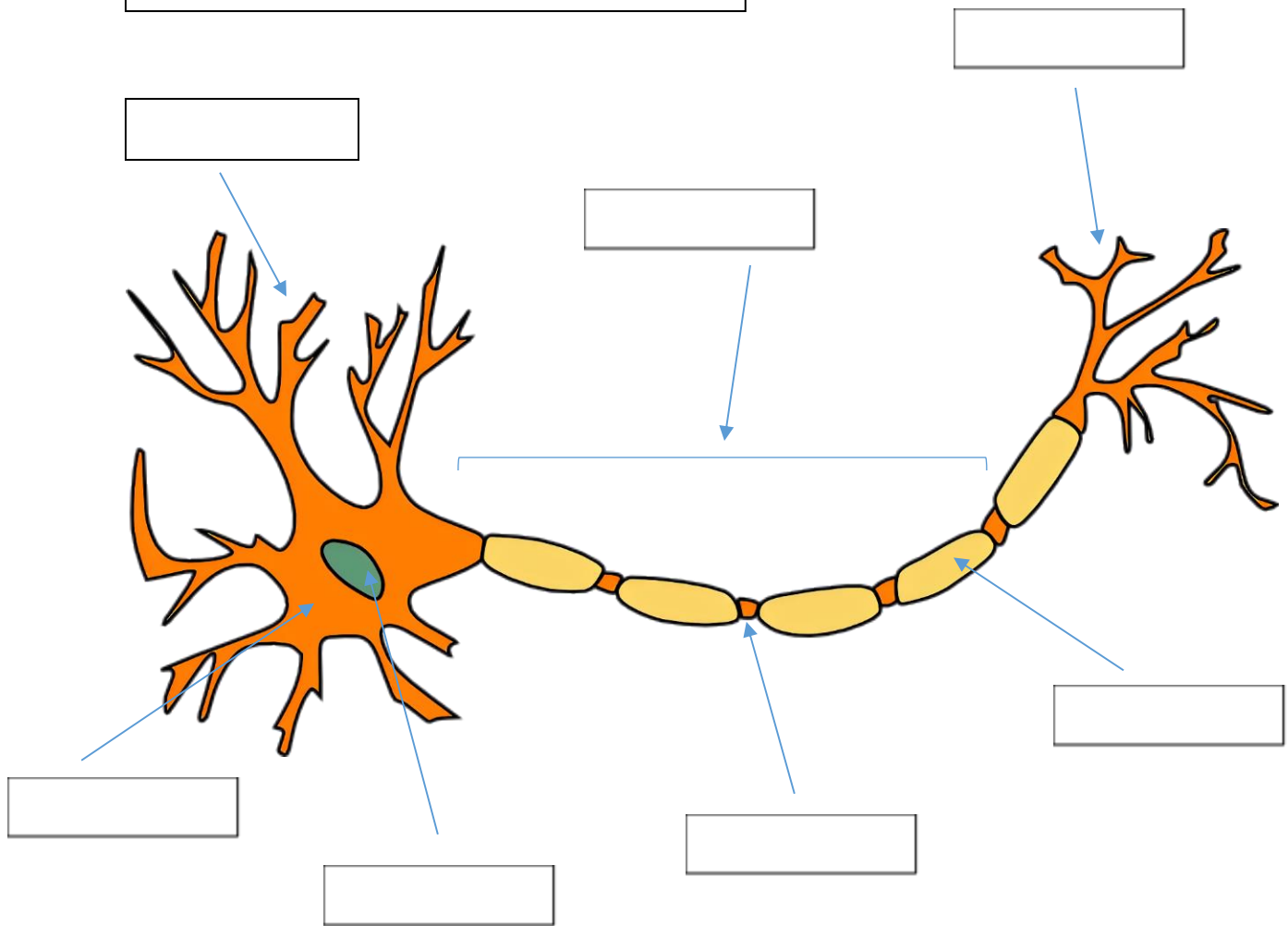
Label the
hemispheres
of the brain



Draw and briefly explain a
brain that has been effected by
disease



Label the parts of a neuron



My Own Neuro School Glossary

For this activity, you can write down any new words or phrases that you have learned from the videos, as well as their definition in your own words. Try to get at least 5!

_____ :

_____ :

_____ :

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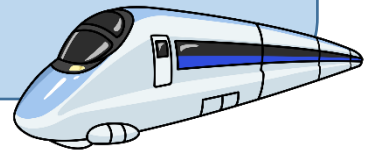
_____ : _____



In the Cerebellum you might see...



How is transportation in the Cerebellum?



The cerebellum is located...

In the Cerebellum, you'll learn all about...



Here's a cool fact about the Cerebellum!

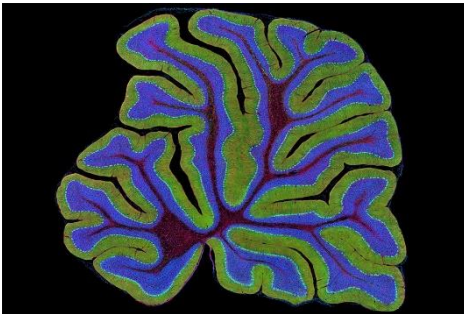
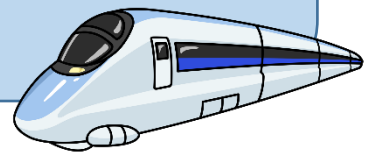




In the Inferior Colliculus you might see...



How is transportation in the Inferior Colliculus?



The Inferior Colliculus is located...



In the Inferior Colliculus, you'll learn all about

Here's a cool fact about the Inferior Colliculus!

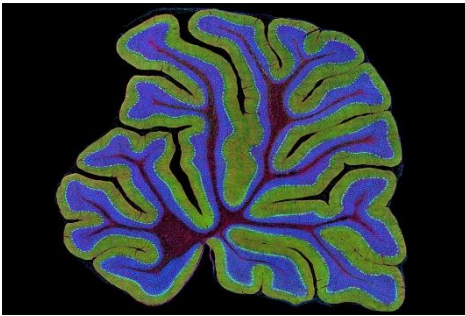
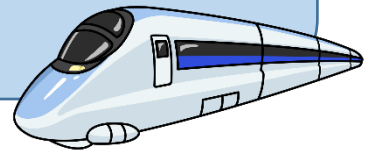




In the Pons you might see...



How is transportation in the Pons?

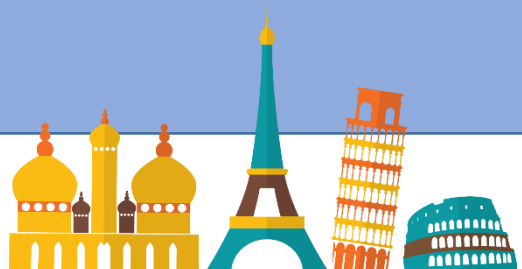


The Pons is located...

In the Pons, you'll learn all about...



Here's a cool fact about the Pons!



Neurotransmitter Matching

Using the Neuropharmacology video, draw a line that matches these neurotransmitters with the drugs that they are effected by.

GABA: Calming

Glutamate: Memory

Endorphins: Euphoria

Serotonin: Mood

Acetylcholine: Learning

Adreneline: Fight or Flight

Cocaine, Methamphetamine,
Adderall

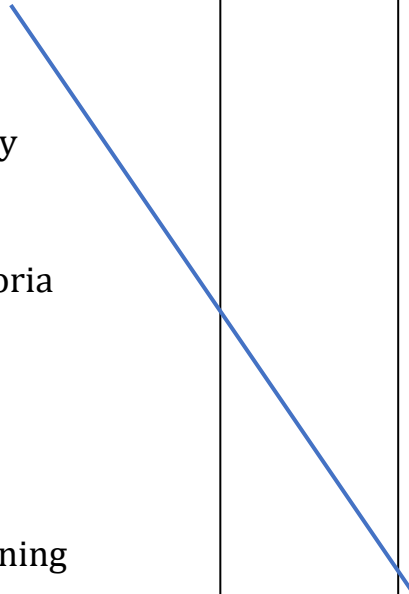
Alcohol, PCP, Ketamine

Virtually all drugs

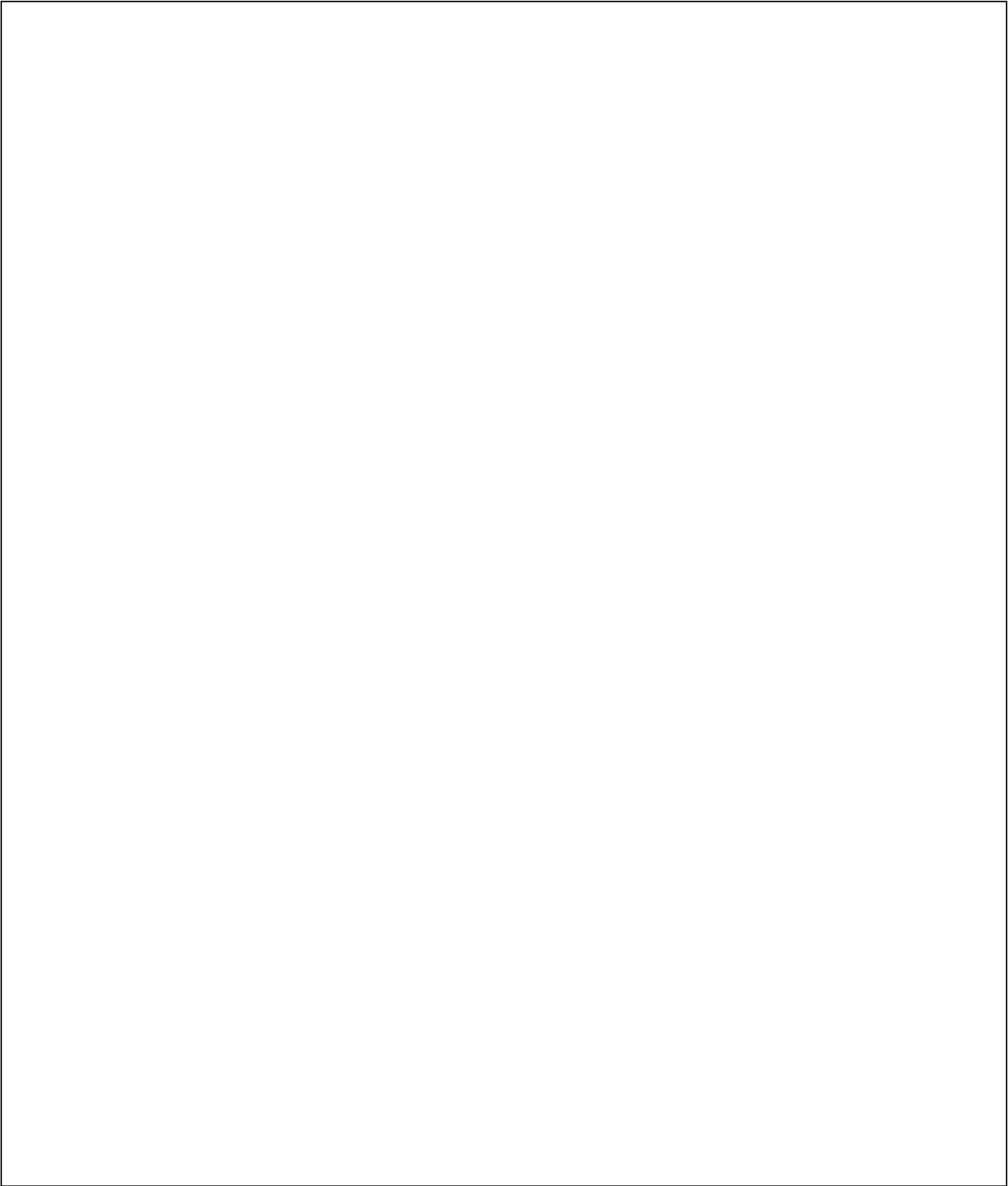
Morphine, heroin,

Alcohol, benzodiazepines

Nicotine



Design a flyer that would tell a reader about the effects of trauma on the brain



Pain and Temperature Activity

In about 4 or 5 sentences, describe a time that you felt something really cold, hot, or even painful. Then, describe the process that was happening in your nervous system to cause that reaction. What neurotransmitters were involved? Why did this feeling occur?

[illegible]

Five Things You Learned from Neuro School

1.

2.

3.

4.

5.

Questions for Neuro Students and Professors

Create Your Own Flyer or Poster

A large, empty rectangular box with a thin black border, occupying the majority of the page below the title. It is intended for the user to create their own flyer or poster.

Create Your Own Flyer or Poster

[illegible]