GirlsGotSTEAM x Simply Neuroscience Build a Neuron SciNotebook

Program:	Build a Neuron
Age Range:	7-11
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Description:	Step 1: Wake up! Step 2: Come to this workshop! Step 3: Have fun! Learn how to make a model neuron!

Pre-Workshop Questions

What do you think a neuron is?

What do you think neurons look like?

What do neurons do?

Introduction

What is the nervous system?

What is the central nervous system? What parts make it up? What does it do?

What is the peripheral nervous system? What parts make it up? What does it do?

How do neurons link these two systems together?

Telephone Game and Neuron Transmission Race

How easy was it to send the message/bead to the end of the line? Was it quick?

How much did your telephone message change, if it did? How does this reflect what would happen if neurons were damaged?

Neuron Anatomy

For the following parts, mention the function of the part.

1. Soma

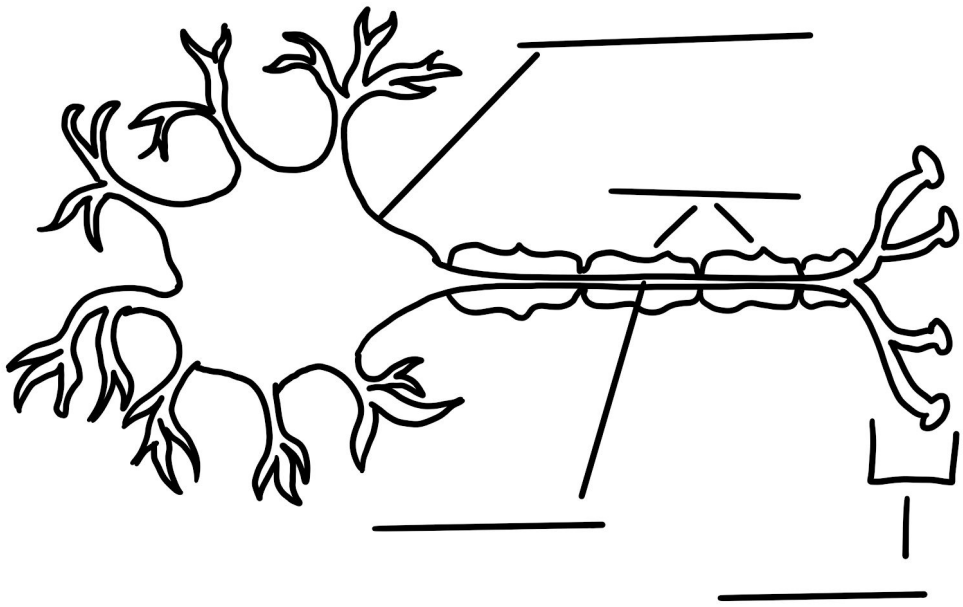
2. Axon

3. Myelin

4. Presynaptic terminals

Mapping

With the map included below, color and label each part. Write a short description of each part (optional).



Planning

What materials might you use for your model?

What materials are you going to use for each neuron part?

Use this page to draw a picture of your planned model. If you want to remake your model, don't worry, you have lots of space! Redesigning and building is part of the design process.

Final Build

After you have built out your neuron, draw or take a picture of what the final product looks like down below.

Reflect

Here are some reflection questions. Answer them and use them as a guide during your discussion.

1. What were the easiest and hardest parts about this challenge?

2. What can you do differently next time to improve your model?

3. What are some household items you can use to create another model?

4. Why is the nervous system important?

5. What do neurons do?

6. What are the different parts of a neuron?