

Engineering Brains Project

Participation in the Engineering Brains laboratory investigations is required by all students. Students may document and present results of an advanced laboratory investigation instead of a summative test on neurophysiology.

You will complete multiple beginner and intermediate neurophysiology experiments. For all experiments go to: <https://backyardbrains.com/experiments/>

To document and create a presentation of a neurophysiology experiment you must complete one of the *ADVANCED NEUROPHYSIOLOGY EXPERIMENTS* at <https://backyardbrains.com/experiments/> and the experiment must be approved by Mr. Darkow. You may come during any study hall time in addition to regular class time to work on your advanced neuroscience experiments.

Neurophysiology Stations

	20 Points Each
Documentation of Experiment	Photographs, notes, and steps of the experiment are detailed and thorough. Photographs have captions. Steps are organized and in one's own words.
Description of the Experimental Methods	Description of your various trials, troubleshooting, and modifications to improve your experimental methods. Descriptions should be detailed, and when necessary, include illustrations. Descriptions should be in your own words.
Explanation of the Results of the Experiment	Graph and explain the various results of the experiment.
Explanation and Analysis of the Neurophysiology of the Experiment	Describe the neurophysiology of the results. Appropriately cite sources using APA style.
Discussion of future applications and hypotheses to be tested	Discuss future applications of the results from your experiments. Propose several hypotheses and discuss how they could be tested to advance neuroscience and neuro-engineering.