

# The Virtual Brain Fair

An event that will forever inspire students to uncover their minds

## Background

Neuroscience is a field of very high need for the future. It has been predicted by various scientists that conditions like dementia will be the leading cause of death, yet we know next to nothing in regards to the brain due to the complexity of the structure. In addition, in fields like computer science, exploring artificial intelligence requires a significant understanding of the human brain that can be replicated in code. Neuroscience is a very interesting area of science, though it seems scary and specialized to students. As a result, it is quintessential to help younger children, right from an elementary stage, to discover the brain in an enjoyable manner so that they will understand the value of studying this vital organ and perhaps even pursue the field in the future. Our goal is to inspire a generation of future scientists, including those from groups underrepresented in STEM, that will not fear the daunting subject of neurology through hands-on, collaborative, and fun activities and demonstrations that showcase science in action rather than theory. It is our hope that this fair will help every child grow their curiosity and interest for not only the brain, but education as a whole.

#### **Session Description**

In a given amount of time that can range from 45 minutes to 2 hours given the desire of the educational center with which the webinar will be held. The Brain Bunch will construct a customized online program that will cover the basics of the brain as well as additional topics of interests called modules. Based on the allotted time, we will cover from 1-6 modules that are each 15 minutes in length. The modules cover the following topics: magic/optical illusions and awareness.

	Description	Time
Brain Basics	Cover the basic parts of the brain as well the neuron (the basic unit of the brain).30 minutes	
Modules	Discover how the brain relates to different activities we all love. 15 minutes per module	



#### <u>Brain Basics</u>

The Brain Basics is the introductory part of the session. We will cover the basic anatomy of the brain, including the cerebrum, cerebellum, brain stem, and four lobes. In addition, we will help the students learn about the neuron, the basic functional unit of the brain, in order to explain how its structure allows it to work. Each lesson will be accompanied by models of the neuron and the brain that session participants can touch and see in order to interactively learn. In addition, we will engage the students in two activities corresponding with each lesson. The "Brain Slides" activity will allow students to detect the features of microscopic brain slides taken from different animals. We will work together to answer questions related to parts of the brain enabling certain functions to occur. The second activity, "Brain Circuits," will allow students to assist in building electrical circuits in teams to represent how a neuron works.

### <u>Modules</u>

The modules consist of interesting topics that we connect to the brain. Each module will last 15 minutes consisting of a lesson and an activity with additional educational materials. The lessons will reveal how the different parts of the brain allow each of the activities to occur.

	Activity	Activity Description
<b>Optical Illusions</b>	Wacky Illusions	Discover why different illusions stun your mind
Awareness	BrainToons	Pay attention to the elements of a cartoon scene
Reasoning	What Would You Do?	Evaluate decisions by the brain in different cases

#### Marketing

We will market this initiative on our website <u>https://www.thebrainbunch.com</u> as well as our Facebook and Twitter pages. We will also create and send you posters that you can add on your social media pages, newsletters, bulletin board, etc.

# Don't Like Our Plan?

The best part of our curriculum is its flexibility in execution! We can design the session to exceed your expectations in any manner possible. We have set up programs in collaboration with other STEM programs being held. We are also working with schools on classroom based sessions. The ideas and opportunities are endless! We will work with you to formulate our content into a desirable program.



Learn more about us at <u>https://www.thebrainbunch.com</u>