

6-8- How Fast Does Your Brain Work??

Description- *How fast does your brain respond to stimuli? In this lab, we will first go over the parts of the brain. Then we will jump into a reflex experiment where students will get to see just how quick they can react.*

Standards:

- **MS-LS1-8** Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

Materials provided by classroom teacher:

- Parts of the brain demo- I will ask at the beginning of the lab which one you are doing.
 - Option 1: Have the students make a brain cap
 - Gallon size zip lock baggie (one per student)
 - Scissors (one per student or they can share)
 - Permanent markers (assortment of colors, students can share)
 - Option 2: Paper demo
 - Printer paper or white construction paper (one per student)
 - Markers or colored pencils
- Reflex experiment
 - Rulers (one per of student)
 - Data sheet (provided in packet)
 - Calculator (students can share)
 - Bandanas (Optional! During the experiment students will be asked to close their eyes. If you have something around the classroom to use as a blindfold, go ahead and get it out, if not no big deal!)

Advanced Preparation for classroom teacher:

- Have all materials out and ready to go.
- Have copies of the data sheet printed out for every student. (Attached at the end of the packet.)

Program Connection Information

Please use an external microphone (conference style) rather than the integrated one in the computer for the audio for your class and locate it centrally in the room. It can be difficult for the Greenbush teacher to hear the students using the computer microphone and therefore it reduces the interactive nature of the lesson. It is fine to use the computer webcam for your video source though.

All classes will take place using Zoom desktop video. If your building is already set up to use a desktop video application with a computer, simply open a browser and enter <https://greenbush.zoom.us/j/6913388482> in the URL space. You may need to download Zoom launcher software (free download) if you don't already have it. This needs to be done in advance of the lesson.

If using a Polycom video conferencing unit (or any legacy type video conferencing unit) to connect to a ZOOM conference, make sure the unit is in "encrypted mode" then dial the following IP on the internet: 162.255.37.11 or 162.255.36.11 and once connected, they will ask for a MEETING ID: enter 6913388482 (for Kenzie at Science Center).

It's always a good idea to touch base with your district technology facilitator prior to your program to make sure all systems/equipment are in place and operational and no firewalls that might prevent you from connecting to Zoom.

Once you connect, you will enter a Zoom waiting room. Your Greenbush teacher will admit you into the final meeting room.

Classes take place at the following times:

9:00-9:45

10:00-10:45

12:15-1:00

1:15-2:00

2:15-3:00

If you log in during one of those times, you may connect during another class' lesson. If you do, please check your connection to make sure things are working properly and then leave the meeting until your scheduled time by selecting "End Meeting" in the lower right corner of your Zoom screen and click on "End Meeting". You will need to rejoin the meeting at your scheduled time. This prevents your site from interfering with the lesson currently in progress. After your lesson is finished, please leave the meeting.

If you have questions, please call Kenzie Heatherly at Greenbush (620-724-6281).

Reaction Time Experiment

-In this experiment, you and a partner will be testing each other's reaction times using a 12" ruler. You will be testing visual stimulus, auditory stimulus, and tactile stimulus.

Experiment 1

	Visual	Auditory	Tactile
Test 1			
Test 2			
Test 3			
Average			

Experiment 2

	Visual	Auditory
Test 1		
Test 2		
Test 3		
Average		