

SOURCE Lesson Plans Detail

Intro to Neuroscience

Topic	Neuroscience
Program	Brown Science Prep
Developed by	Dustin Hayden, MinKyoung Kim, Kaylyn Shibata
Developer Type	Undergraduate students

Overview / Purpose / Essential Questions

Explain how we see/touch/feel pain

Performance / Lesson Objective(s)

To introduce basic neuroscience concepts and neuroanatomy; to briefly explain how visual & somatosensory systems work

Lesson Materials

Optical illusion pictures, paper clips, rulers (two-point discrimination test)

Lesson Motivation

The visual & somatosensory systems can be used to introduce how different sensory systems and pathways work: to explain basic concepts such as receptors, synapses, decussations, etc.

Lesson Activities

Two-point discrimination test, point-of-decussation worksheet, Optical illusions

Procedure

Two-point Discrimination test (in pairs)

1. Student 1: Use both ends of the paper clip to poke Student 2's hand (palm, fingertip, etc) in varying distances. Student 2 should have his/her eyes closed.
2. Record the distance (upper limit) where Student 2 start feeling as if the poking is done by one single tip, not two.

Repeat this with different parts of the body to see which part of the body is most sensitive to two-point discrimination test

Follow up

Additional lesson plan on Brain and Auditory System is given in the link below.

Presentation

Alignment Info

Audience(s)	High school students
STEM Area(s)	Neuroscience

Standard(s)	<i>Life Sciences (RI GSE) LS4.3–4.8a</i> Students demonstrate an understanding of human body systems by ... showing connections between external and internal body structures (i.e., organs and systems) and how they help humans survive.
Activity Type(s)	Hands-on Lecture
Grade Level(s)	High School 8
Version	1
Created	01/15/2012 09:20 PM
Updated	02/22/2012 10:42 AM

Brown University

Providence, Rhode Island 02912, USA

Phone: 401-863-1000

© 2016 Brown University
