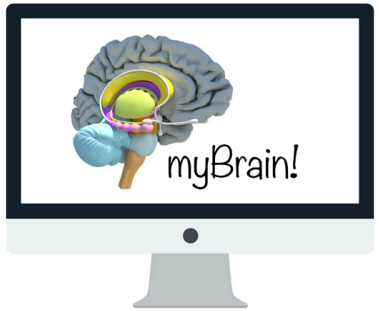
There's an app for that!

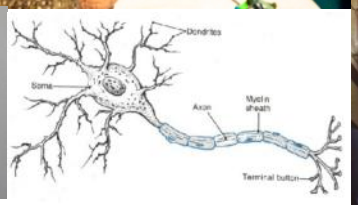


Can neuroanatomy education lead to lifestyle modification..?

Bill Griesar, PhD, WSUV Neuroscience, NW Noggin
Jeff Leake, MFA, WSUV Neuroscience, NW Noggin
Brittany Wouden, Multimedia Specialist,
Designer of MyNoggin & MyBrain!
Elizabeth Tremaine, Graduate Student, Psychology, PSU
James Reling, Undergraduate, Psychology, PSU
Michael Miller, BS Psychology, PSU

nwnoggin.org

Neuroscience Outreach Group: Growing in Networks…



nwnoggin.org

- Bill Griesar, Neuroscience Coordinator
- Jeff Leake, Arts Coordinator
- Dedicated volunteers from PSU, WSUV, OHSU, PNCA

Why art - and brains..?

- Motivation and engagement
- Exploration, creativity, and discovery
- Personal relevance of STEAM material
- Internships, jobs and careers

Creative Science School

Who is involved?

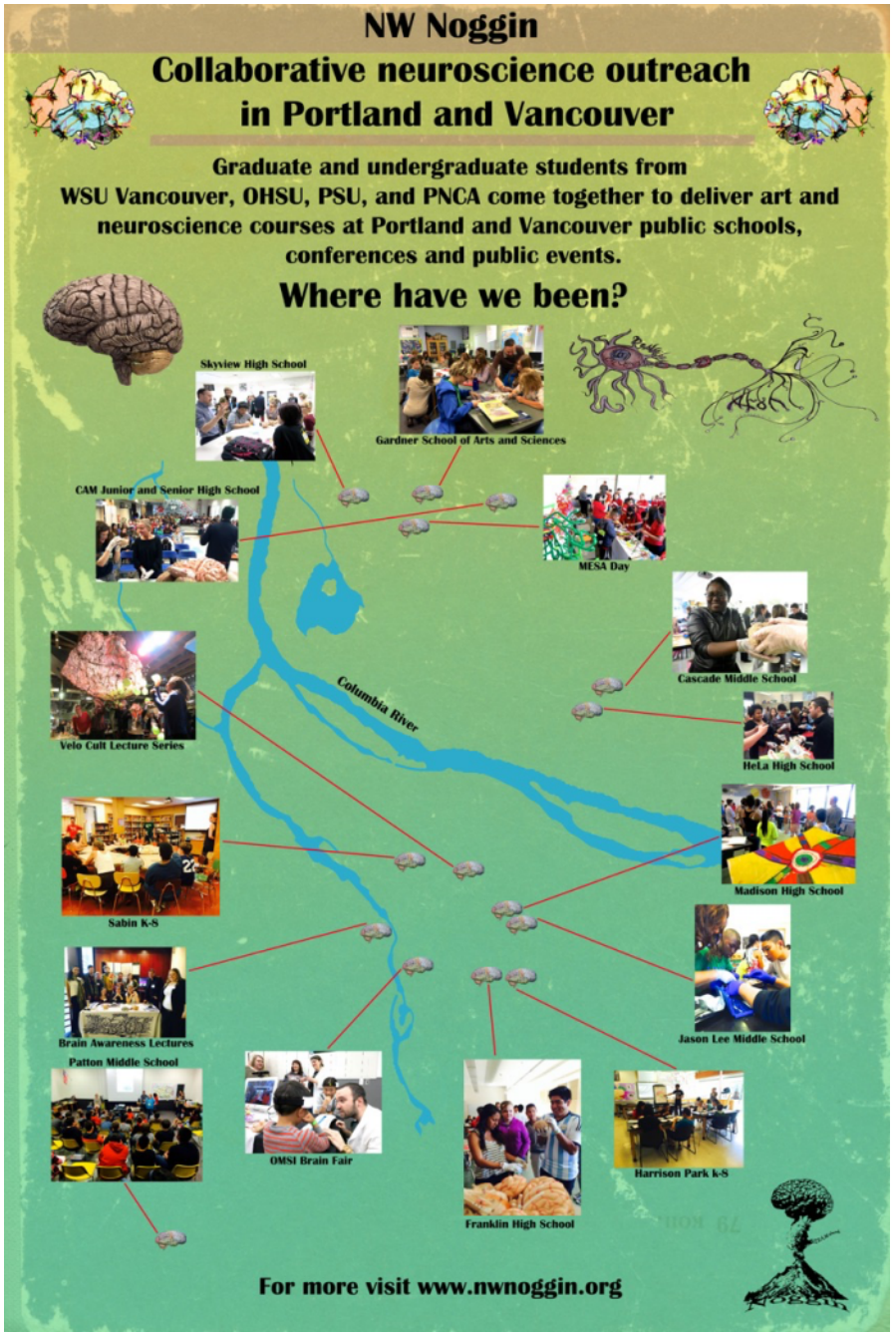
- *Academic priority* K-12 students
  - Portland/Vancouver Public Schools
- Art and neuroscience undergraduates
  - Pacific Northwest College of Art, Portland State University, Washington State University Vancouver
- Art and neuroscience graduate students
  - PNCA, PSU, WSUV, Oregon Health & Science University
- Working artists and scientists


McCoy Academy


Skyview High School

Where do we go?

- K-12 schools
- Universities
- Retirement communities
- Hospitals
- Science museums
- Art museums
- Conferences
- Homeless shelters
- Bike shops, pubs
- *Thousands reached*



STEAM Outreach: Four types

Classroom visits

Multi-day instruction

Public events

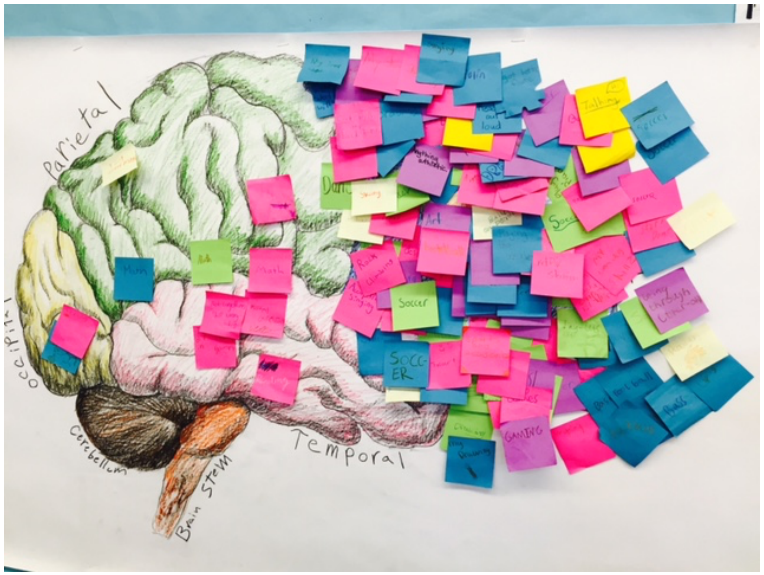
Summer Programs (MESA, PPS)


Society for Neuroscience, Washington, DC
VV55
VV54


Portland Art Museum

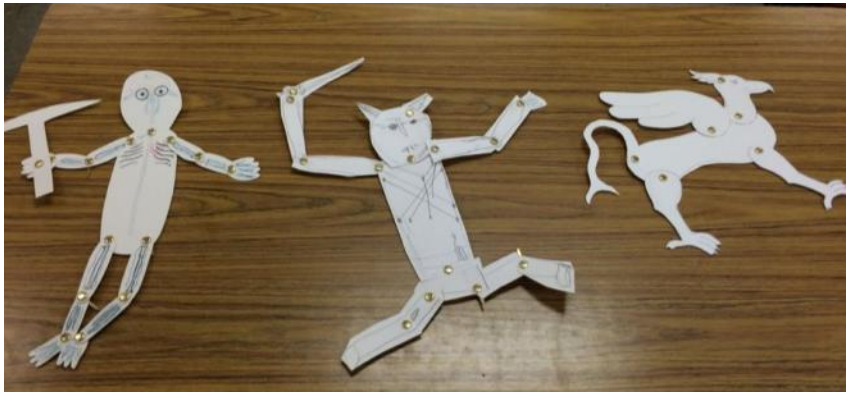

Velo Cult

Art projects that…



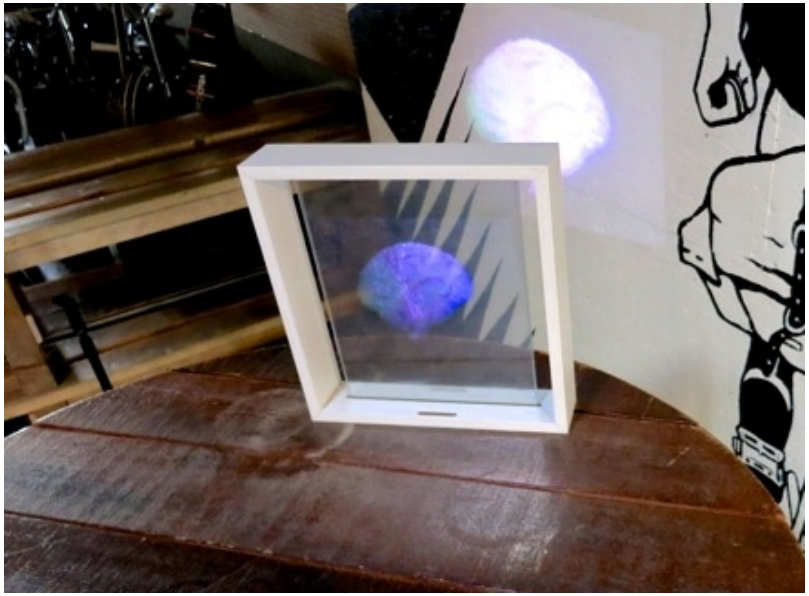
Serve as examples of concepts

Illustrate concepts

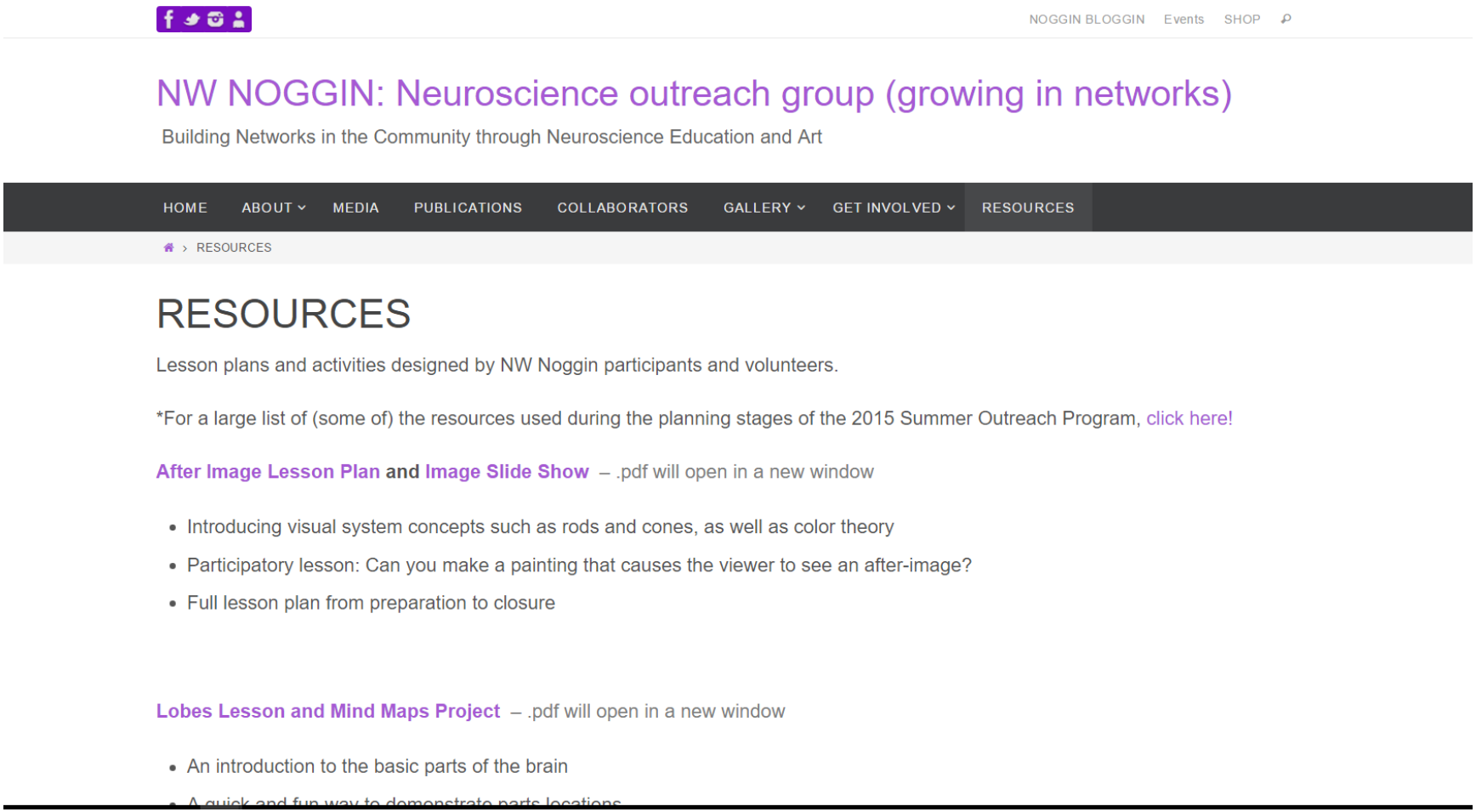


Allow students to explore a concept

Artists and art students often reference other fields within their own work



nwnoggin.org website



NOGGIN BLOGGIN Events SHOP

NW NOGGIN: Neuroscience outreach group (growing in networks)

Building Networks in the Community through Neuroscience Education and Art

HOME ABOUT MEDIA PUBLICATIONS COLLABORATORS GALLERY GET INVOLVED RESOURCES

› RESOURCES

RESOURCES

Lesson plans and activities designed by NW Noggin participants and volunteers.

*For a large list of (some of) the resources used during the planning stages of the 2015 Summer Outreach Program, click here!

After Image Lesson Plan and Image Slide Show – .pdf will open in a new window

- Introducing visual system concepts such as rods and cones, as well as color theory
- Participatory lesson: Can you make a painting that causes the viewer to see an after-image?
- Full lesson plan from preparation to closure

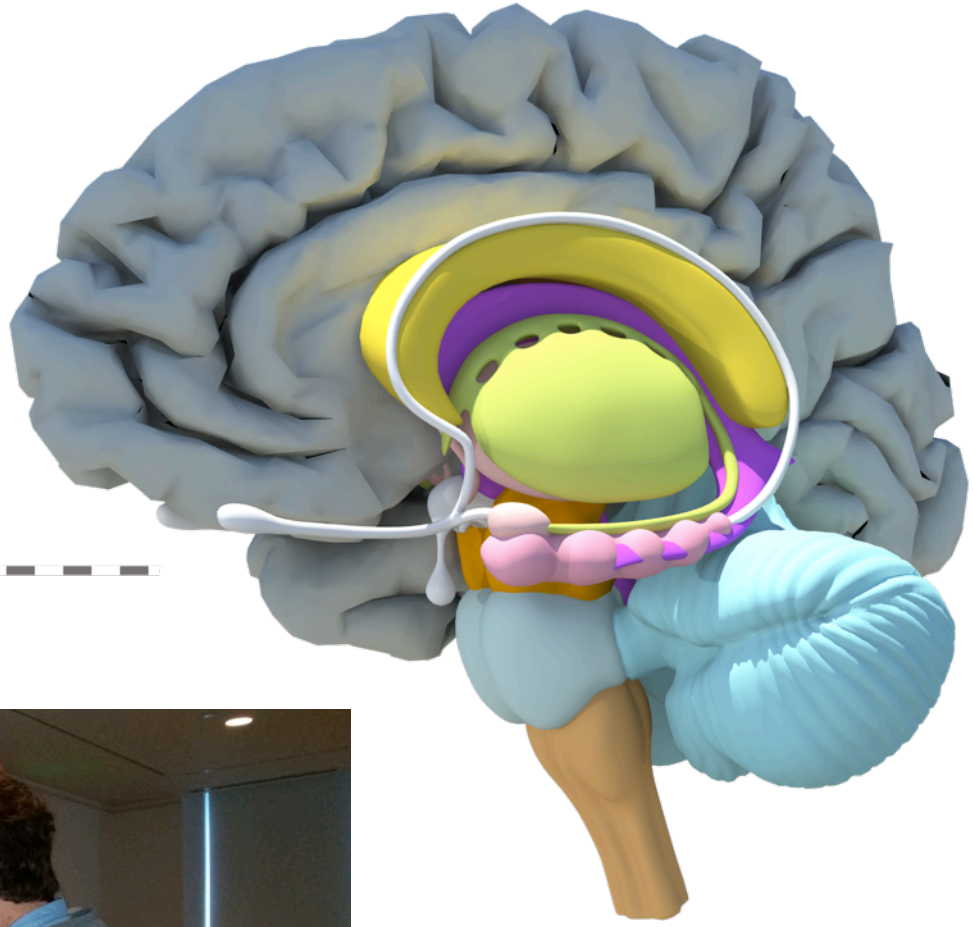
Lobes Lesson and Mind Maps Project – .pdf will open in a new window

- An introduction to the basic parts of the brain
- A quick and fun way to demonstrate parts locations

nwnoggin.org website

An Augmented Reality Application For Neuroscience Education.

Original designs and conceptualization of My Brain! imagined a GUI driven mobile app focused on displaying significant but simple stimulus effects on a 3D model of the brain super imposed on the face.

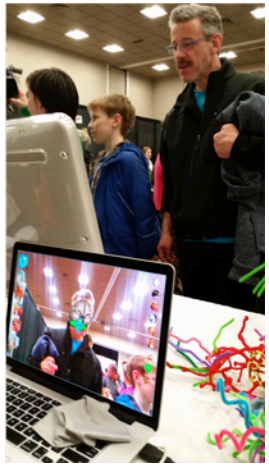


did you know?

The 3D cerebrum model used in My Brain! is an accurate brain scan obtained through an MRI used in UCSF's and UCSD's Glassbrain project.

interdisciplinary collaboration.

Over
1000
K-12 Students



“Efforts to reach a broader public about scientific discovery contributes to fascination, understanding and support for research and education about behavior, and the brain. Effective integration of technology, art projects and activities into outreach efforts increases engagement, makes learning personally relevant, and allows students to explore concepts by creating objects and images they can share with family and friends.”

- Jeff Leake

Innovative programs... innovative assessments!

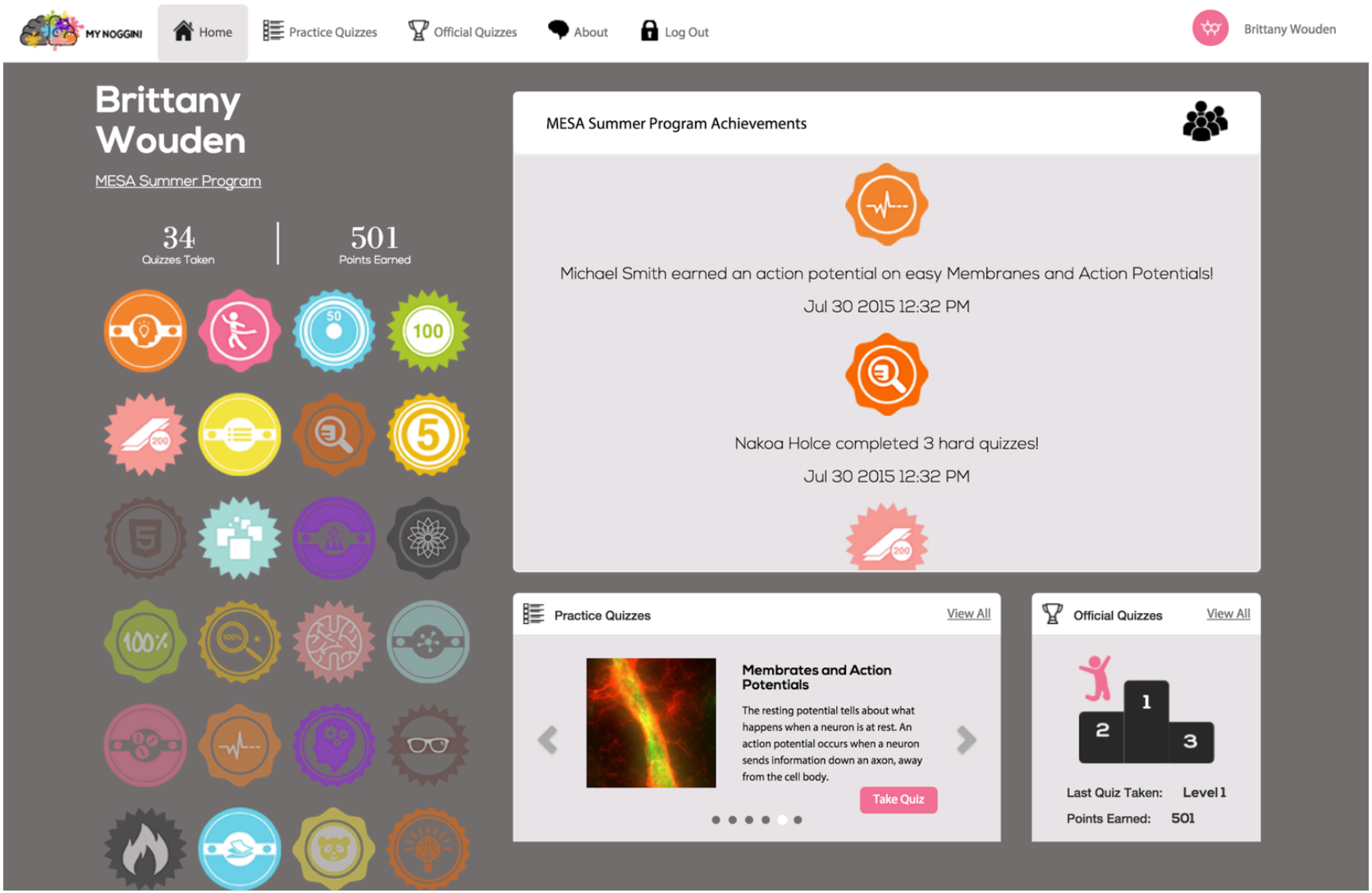
- We wanted our programs' assessments to align with our educational approach

Formal, intimidating, paper-and-pen tests? **No thanks!**

- Instead, we wanted to create a **fun**, **engaging**, **low-stakes** way for kids to practice their neuro skills and show us what they've learned

Thus, 

was born!


MY NOGGIN!
Home
Practice Quizzes
Official Quizzes
About
Log Out
Brittany Wouden
Brittany Wouden
MESA Summer Program
34
Quizzes Taken
501
Points Earned
MESA Summer Program Achievements
Michael Smith earned an action potential on easy Membranes and Action Potentials!
Jul 30 2015 12:32 PM
Nakoa Holce completed 3 hard quizzes!
Jul 30 2015 12:32 PM
Practice Quizzes
View All
Membrates and Action Potentials
The resting potential tells about what happens when a neuron is at rest. An action potential occurs when a neuron sends information down an axon, away from the cell body.
Take Quiz
Official Quizzes
View All
1
2
3
Last Quiz Taken: Level 1
Points Earned: 501

Practice Quizzes

Are you ready to put your learning into action?

These quizzes are purely for practice, so use them to help you solidify what you're learning in class. The more you practice, the stronger your brain pathways will grow and the more you'll know! Practice as much as you want, and if you don't know some of the answers, that's ok! Just give it your best shot and never be afraid to ask your teachers for help with topics you don't understand.

Have fun and good luck!

Introduction Quiz

A very simple quiz to introduce you to how the program works.

Nervous System

Test your knowledge of the human nervous system. You'll see questions on the central and peripheral nervous systems.

Nervous System Challenge

Think you know your nervous system? Challenge yourself!

Brain Structures and Networks

How well do you know your own brain? Test yourself on brain structures and networks.

Brain Structures and Networks Challenge

How well do you know the 2.5lbs of cells in your head? Challenge yourself!

Neurons

Take a quiz on the structure and function of neurons.

Neurons Challenge

Are you ready for some challenging questions about neurons?

Neurotransmitters, Drugs and Motivation

Feeling motivated to answer questions on Neurotransmitters? Dopamine, Serotonin, Drugs. Oh my!

Neurotransmitters, Drugs and Motivation Challenge

Think you know all about neurotransmitters? Step up to this challenge!

Membranes and Action Potentials

Think you can pass through this membrane level?

Membranes and Action Potentials Challenge

Answer questions about membranes - Challenge level!

Sensation and Perception

Test your senses with these 10 questions.

Sensation and Perception Challenge

Can you integrate your senses to answer these challenging questions?

Random

Try out a random set of questions from all the categories.

Random Challenge

Do you think you're ready for this one? Concentrate!

Official Quizzes

You are about to begin an official assessment.

Before you start, take a moment to bring your concentration to the task ahead. Think back on the many topics and concepts you learned this week and do your best to apply them while answering the following 10 questions. When you are prepared, enter the code your instructor gave you and click "Let's Go!" to begin the assessment.

Take your time and do your best!

MESA Summer Program

34
Quizzes Taken

501
Points Earned

You have earned **501 points** of the total 501 points.

Quiz #1: Brain Basics

Here's your chance to see what you've learned from week one! You will have 10 questions to answer about brain structures, networks, neurons, and the nervous system.

Week 1 Password | Let's Go!

Quiz #2: Communication

Here's your chance to see what you've learned from week two! You will have 10 questions to answer about neurotransmitters, action potentials, drugs, and memory.

Week 2 Password | Let's Go!

Quiz #3:Sensation and Perception

Here's your chance to see what you've learned from week three! You will have 10 questions to answer about vision, hearing, speech, touch, taste, and smell.

Week 3 Password | Let's Go!

MESA program kids loved it!

All students reported to like MyNoggin (4.4 out of 5)!

All but one student reported that MyNoggin helped them learn class material (4.4 out of 5)!

"...it was a **cool way to learn** the info, and I liked it better than taking a paper and pencil test."

"The quizzes can show you what you have learned from class. There are **achievements** that can **motivate** people to do the quizzes."

"It's really **challenging**. You have to think and remember what you learned that day or a few days ago."

"MyNoggin has a great system... **practicing** can be **anytime**."

AR
AUGMENTED
REALITY

+

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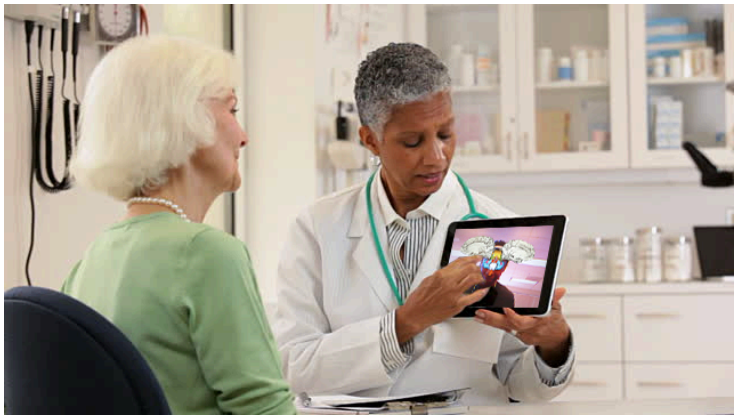

looking ahead: myBrain! for health education