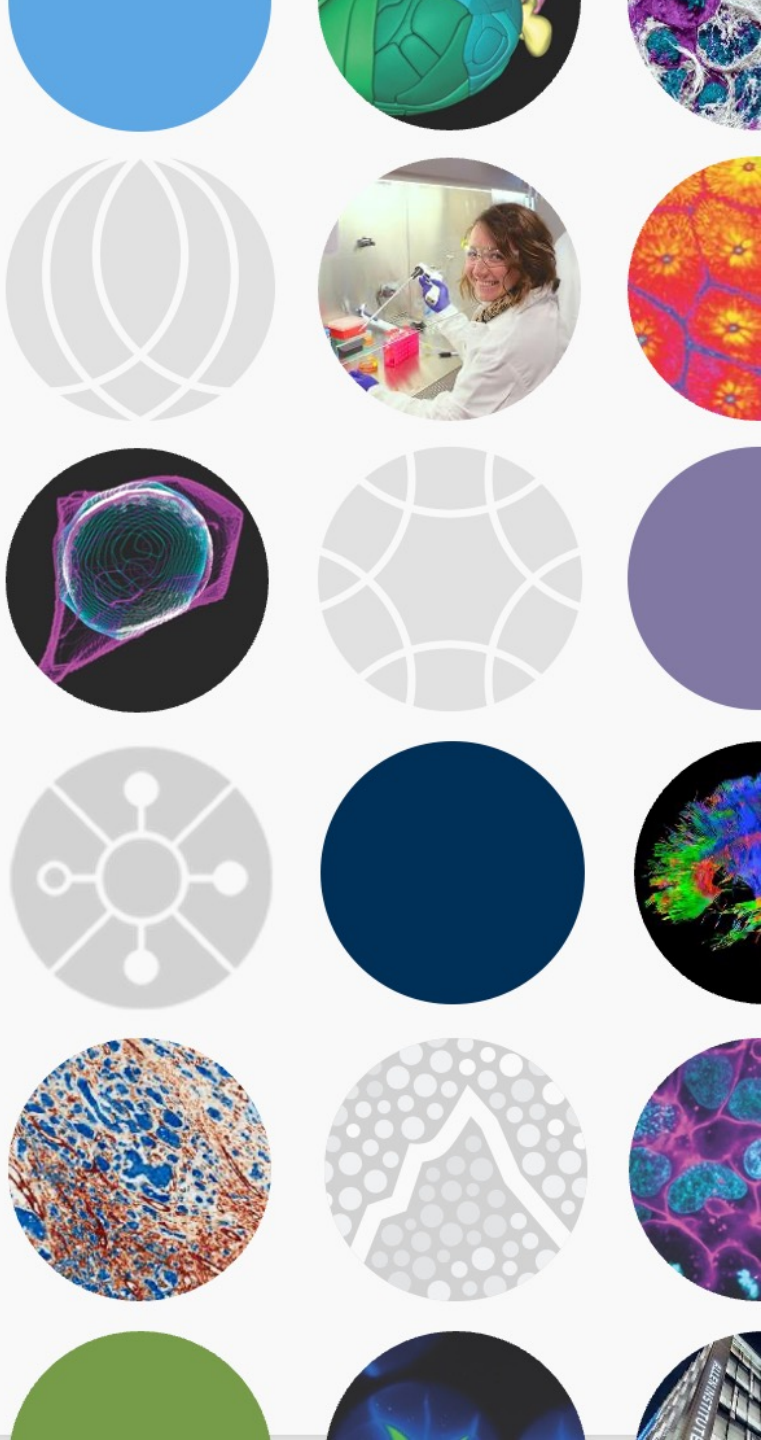
NORTHWEST NOGGIN

ENGAGING COMMUNITY THROUGH NEUROSCIENCE RESEARCH AND ART!

ALLEN INSTITUTE

Allen Institute: Open science in research and education



ALLEN INSTITUTE | ALLEN INSTITUTE for BRAIN SCIENCE | ALLEN INSTITUTE for CELL SCIENCE | ALLEN INSTITUTE for IMMUNOLOGY | ALLEN INSTITUTE for NEURAL DYNAMICS | THE PAUL G. ALLEN FRONTIERS GROUP

- Established 2003 by Paul G. Allen
- South Lake Union, Seattle, WA
- 800+ employees

hard problems
complexity
foundational biology

→

big science
team science
open science

→

data
knowledge
tools

Open science empowers research and education

Open science:

- Datasets
- Lab protocols
- Equipment schematics
- Analysis and visualization software
- Findings and results

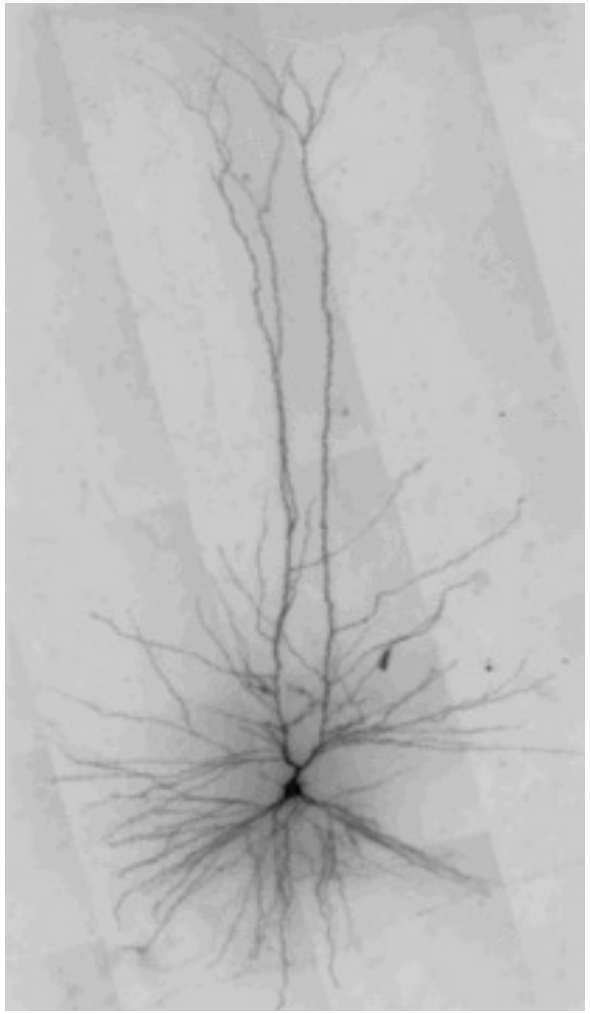
Open science in research:

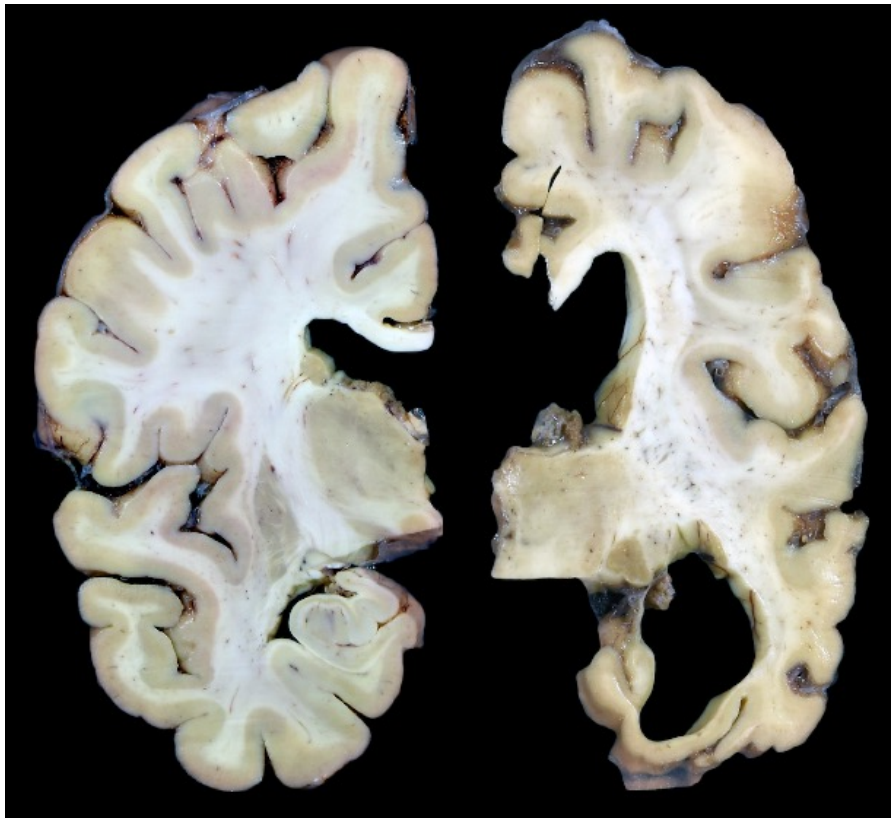
- Accelerate research across the field
- Promote transparency
- Empower low-resource researchers
- Enhance human health

Open science in education:

- Share cutting-edge research topics
- Introduce analysis techniques and skills critical for science careers
- Enable student research projects with research-grade data

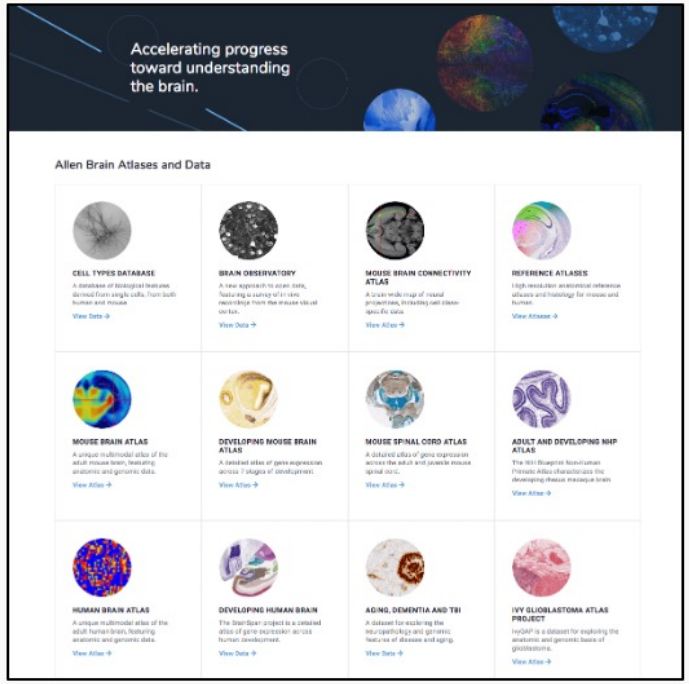
Cutting-edge neuroscience impacts research and health

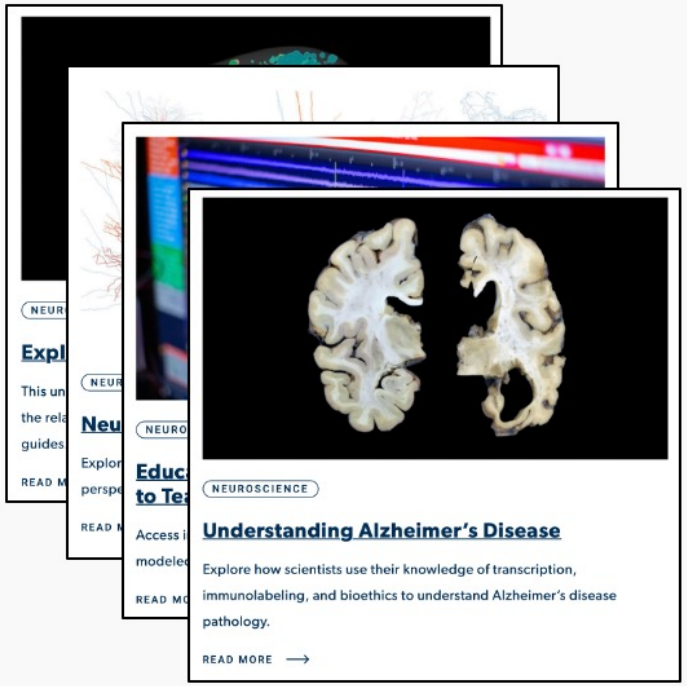




Education & Engagement at Allen

Our Mission: Use the Allen Institute's open science resources to **educate**, **engage**, & **inspire** diverse communities and develop the next generation of science professionals





OPEN DATA → INNOVATIVE CURRICULA → STUDENT PROGRAMS, EDUCATOR WORKSHOPS. & MORE

NORTHWEST NOGGIN

ENGAGING COMMUNITY THROUGH NEUROSCIENCE RESEARCH AND ART!

THANK YOU

American Brain Coalition

U.S. House of Representatives

Dana Foundation

Neuroscience Club · Portland State University

DR. PAUL ARAVICH,
Eastern Virginia Medical School
("the brains")

The Roundhouse Foundation

Portland State University

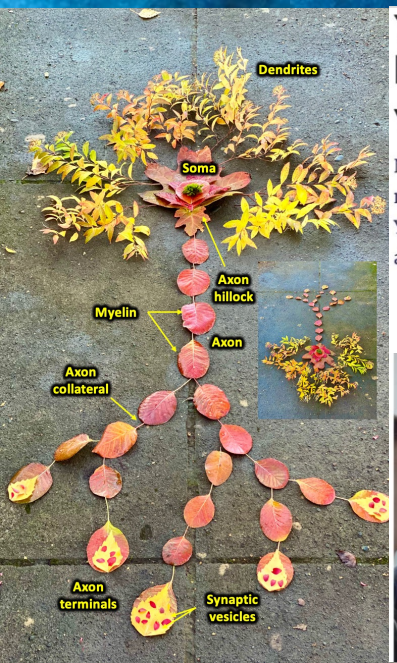
NW Noggin
nwnoggin.org

ALL VOLUNTEER

ELEVEN YEARS (SINCE 2012)!
NO ADMISSION - NO TUITION - OPEN TO EVERYONE
65,000+ PUBLIC K12 STUDENTS/COMMUNITY MEMBERS
LOCAL/NATIONAL/INTERNATIONAL COLLABORATORS

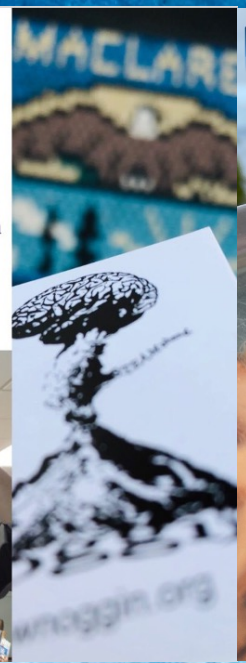
GO PLACES

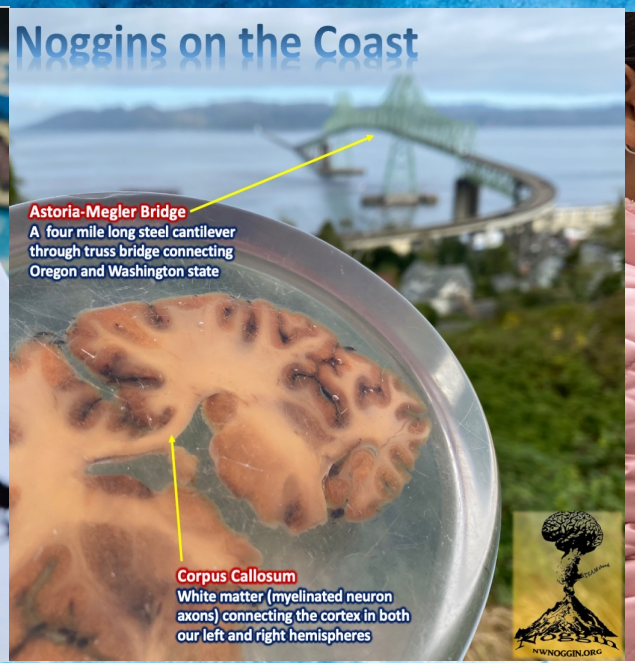
-WHERE STEM PROGRAMS DON'T GO
-WHERE MONEY AND RESOURCES DON'T GO
-PUBLIC K-12 SCHOOLS
-RURAL AND URBAN COMMUNITIES
-HOUSELESS YOUTH NONPROFITS
-CORRECTIONAL FACILITIES



Youth get visual, hands-on experience with the brain

NW Noggin, a neuroscience outreach nonprofit, reached out to youth at MacLaren Youth Correctional Facility this week to teach about brain development.



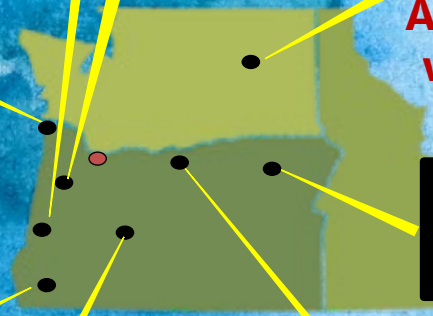


Siletz, Amity & Willamina, OR
Pop: 4000

Davenport, WA
Pop: 1700

Astoria, OR
Pop: 10,000

A few places we've been



La Grande, OR
Pop: 13,000

Meservy Meadows, OR
Pop: ~40

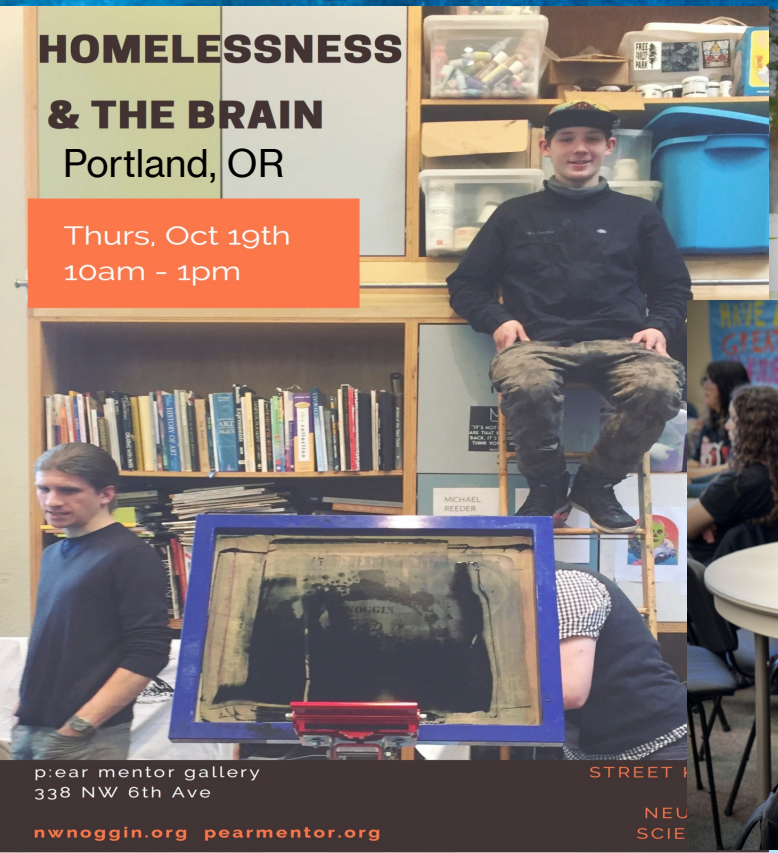
Sisters, OR
Pop: 3081

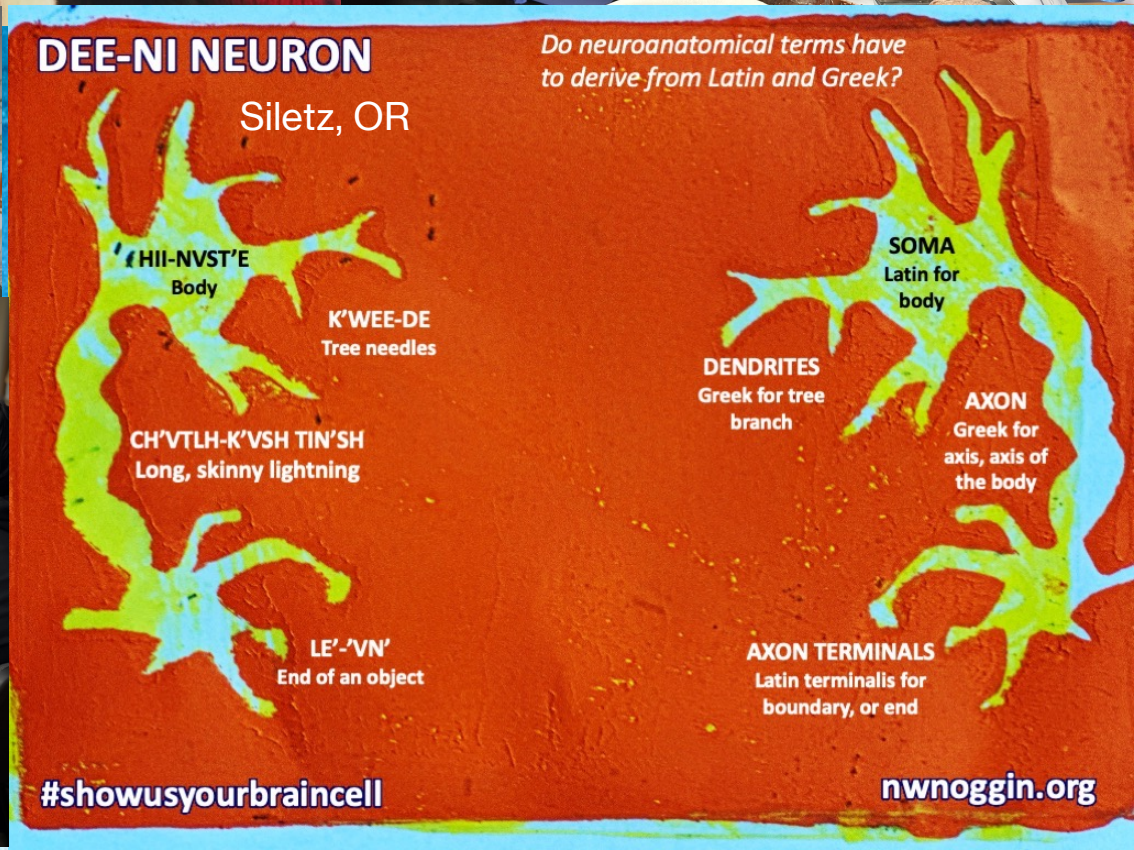
Heppner & Ione, OR
Pop: 1240

Sisters, Oregon

LISTEN

-LIVED EXPERIENCES
-RELEVANT KNOWLEDGE
-SEEING OTHER PEOPLE



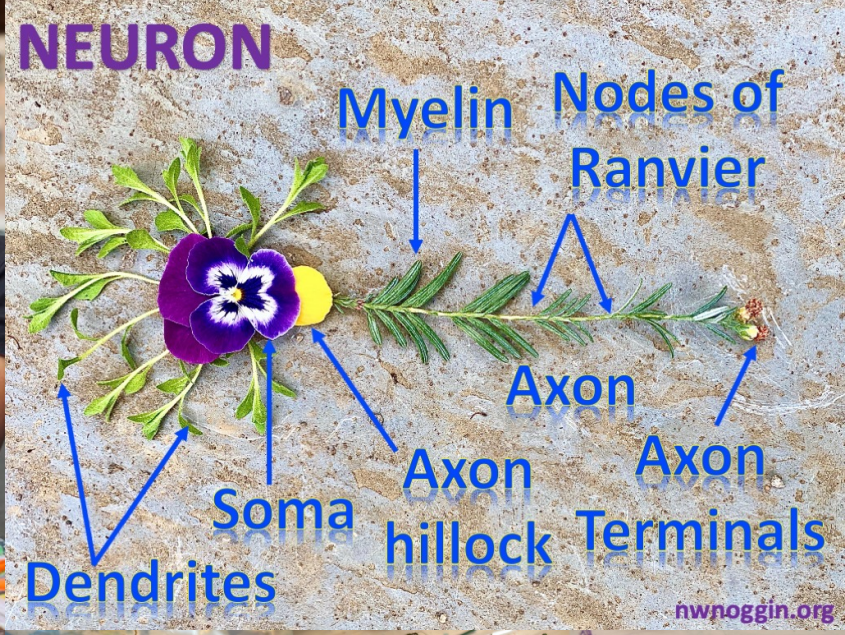


SHARE STORIES

-EMPOWER NEW VOICES
-BROADEN THE CONVERSATION
-MAKE PUBLIC INVESTMENT IN RESEARCH RELEVANT
-INVITE NEW PARTICIPANTS, PERSPECTIVES & BRAINS

MAKE ART

-ENGAGEMENT
-PERSONAL RELEVANCE
-SELF-AWARENESS AND EMPATHY

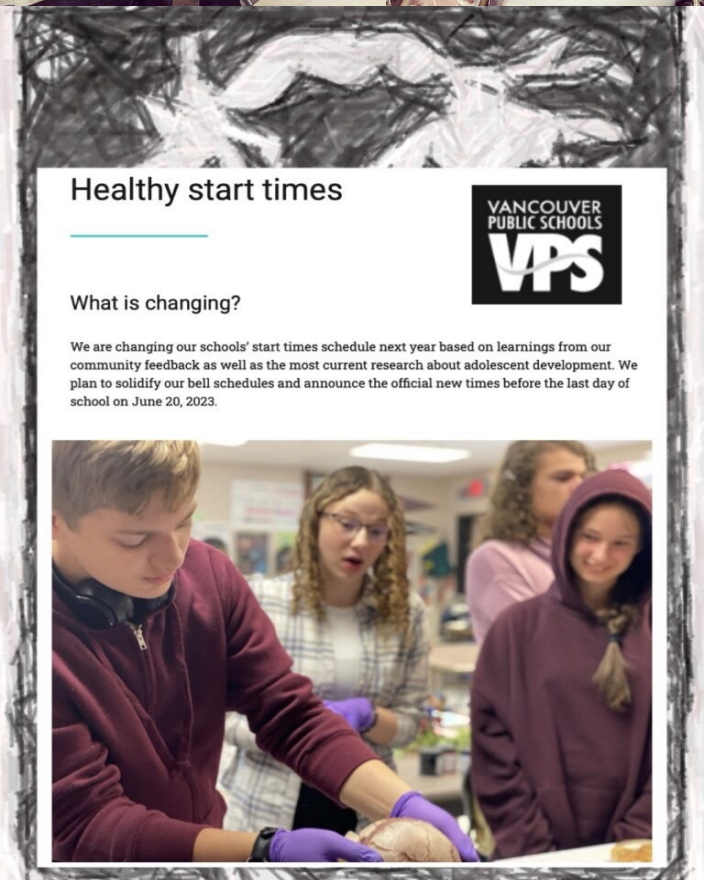


INFORM POLICY

-RESEARCH TOPICS ARE POPULAR!
-INTERDISCIPLINARY/STEAM APPROACHES WORK
-1. SCHOOL START TIMES FOR ADOLESCENTS
-2. PERMANENT STANDARD TIME
-3. HOUSING FIRST

Sleep
Anxiety
Depression
ADHD
Autism
Development
Perception
Gender
Drugs
Memory
Language
Racial Bias

What you do has relevance GO PLACES



SHAKE IT UP

SUPPORT INNOVATION, NOT INSTITUTIONS; MORE ACCESSIBLE GRANTS FOR EDUCATORS, ARTISTS, SMALLER LOCAL NONPROFITS

-EXISTING INSTITUTIONS SUPPORT THEMSELVES. THEY GET RESOURCES, BUT DON'T NECESSARILY INNOVATE OR EMPOWER NEW VOICES.

70% indirects?!

-GOING PLACES TO LISTEN, SHARE STORIES, MAKE ART AND COLLABORATE ENGAGES AND INSPIRES MORE PEOPLE, *GENUINELY* INCREASING DIVERSITY IN RESEARCH AND PUBLIC POLICY.

-LIKE DEVELOPING BRAINS IN CHANGING CIRCUMSTANCES, RISK AND PLASTICITY ARE REQUIRED TO ADAPT, DISCOVER, INNOVATE AND THRIVE.

TOMORROW

-NOGGIN IN DC PUBLIC SCHOOLS 🧠🎨💚😀

BRINGING CHANGE

- Outreach informs our education, which informs our outreach
- STEAM has a lasting influence on the community

EMPOWERING COMMUNITIES & OFFSETTING DISPARITY

- Knowledge fosters agency
- Neuroscience education combats neuromyths (misinformation about the brain)
- Outreach helps break down detrimental stigmatization, empowering communities through personal engagement