

How to Grow A Brain

NED's Mindset Mission Assembly Recap Lesson

Objectives

Growth Mindset Grow Your Brain Never Give Up Do Your Best



Follow-up after the assembly by using the fold-out poster to compare the growth of a tree to the growth of your brain. These lesson concepts are based on the research of Growth Mindset vs. Fixed Mindset by Dr. Carol Dweck, professor of psychology at Stanford University. Every school will receive this poster in their post-show folder the day NED's Mindset Mission visits your school.

Key Vocabulary

Mindset - the attitude or ideas with which you approach a situation. Your attitude determines your response to problem solving, overcoming obstacles and facing challenges. Growth Mindset - the attitude that believes that your brain can keep growing and learning if you work it. The brain is like a muscle that gets stronger with use.

Fixed Mindset - the attitude that believes that your brain is what it is-you can't change it, you can't influence it and you can't make it get better.



Recall the fold-out poster of the tree that was used in the assembly. Have students share what they remember, the different panels, and what was said during the assembly. Your brain is like this little plant. It needs fuel to grow. The plant's fuel is water, sunlight and air. Your brain needs fuel too – it runs on LEARNING. The more you learn, the more your brain grows. Review Life Science Standards if appropriate for your grade: How a plant grows

How are tree roots and brain neurons similar? Different? Use the printable photos to compare and contrast. Here are some ideas to spark discussions:

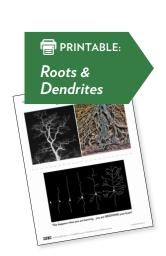
TREES: many roots grow from the main root (root ball), spreading outward and away from the root ball. The root's job is to search and find nutrients in the soil/water and bring it back to the root ball. Similarly, the leaves on the end of the branches do the same kind of work, bringing fuel to the root from the sun and the air. That's how a tree grows.

BRAIN: There are over 100 billion neurons or nerve cells in your brain that each grow dendrites that look similar to the roots or branches of the tree. The dendrites gather and transmit electrochemical signals to and from your brain to the rest of your body. The dendrite's job is to connect to another neuron- carrying exciting messages to other neurons. The more connections you make, the stronger your brain grows.

What excites a dendrite? LEARNING! -When you have a problem to solve, a challenge, or an obstacle, your mindset determines what happens next. If you shut down and don't want to solve the problem, or overcome the obstacle, or even think about learning something new, it stops right there. NED calls that **Brain Freeze.** BUT - if you get excited about learning something new, your brain sends a message and stimulates neighboring neurons. That's what NED calls a **Go Brain!**

How does your brain get stronger? It grows. It grows by feeding. LEARNING feeds your brain. When you are learning new things, you are connecting more and more neurons, making your brain stronger.







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During NED's Mindset Mission, what did the performer mean, when he/she said "When you let go of the words "I know" your brain grows more?

Doing what is easy is NOT learning. Your brain doesn't grow when you do things you already know. You may THINK you already know everything, but there is always more learning than can occur if your mind is opening to learning. You know what you know...but what else is there to know?

Activity: What are My Choices

Use the printable to help kids write their own definitions of Go Brain and Brain Freeze and think about what their actions and words might look like for each.

Discuss with your students: When you face a new challenges or experience a failure you are at a crossroads to learning. If you quit, walk away from learning, or fail to try something new – you have what NED calls **Brain Freeze** (Fixed mindset). However, if you try again, learn from mistakes, consider new solutions, engage in problem solving, etc. you are feeding your brain and causing it to get stronger. YES-failure is a **good** thing if you don't let it stop the learning. NED calls this using your **Go Brain** and activating your brain network. The brain, like a muscle, responds to interaction and activity and grows stronger. Every time you work on a math problem, do an experiment, or solve a problem, the result is more brain connections and growing a stronger brain.

Activity: Use Your Go Brain

Create classroom posters about things you can do to grow a **Go Brain** . Get creative. Consider making a video to share at your school to encourage others to use their **Go** Brains! Check out this school-created video—bit.ly/GrowBrainVideo.

Writing Prompts

Choose a prompt to encourage independent thinking and personal application.

- Explain this statement "My brain runs on learning"
- 10 Things I can say or do to grow my brain.
- What can I say to encourage myself when I have Brain Freeze?

Home Connection

Share these ideas with your school community and families.

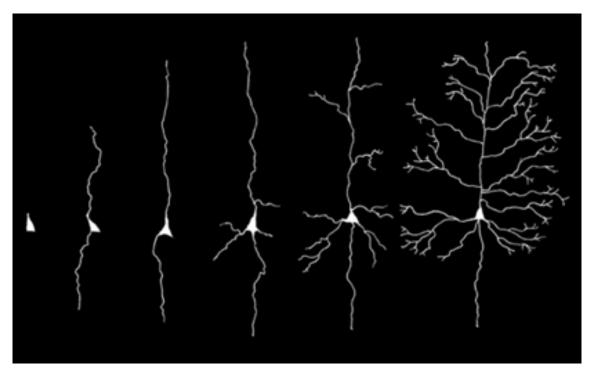
Effective ways to help your child use their **Go Brain** and have a positive, growth mindset.

- Praise the process of learning not the effort or outcome
- Ask open-ended questions to help your child think outside of the box
- Use mistakes to learn something
- Ask your child how they used their Go Brain today!
- Brain Freeze (fixed mindset) happens. Help your child identify it & make a different choice.
- Model having a Go Brain when you face obstacles or challenges.

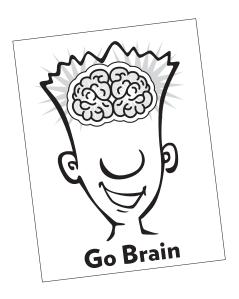


Is it a tree or a brain dendrite?

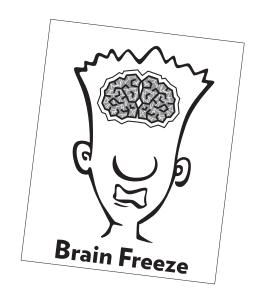




This happens when you are learning... you are GROWING your brain!







Define it	Define it
What would I do or say?	What would I do or say?