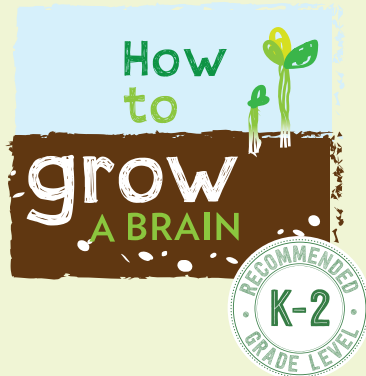


# How to Grow A Brain

Introducing Growth vs. Fixed Mindset

## Themes

Mindset  
Grow Your Brain  
Do Your Best  
Never Give Up  
I Can  
Learn from Mistakes



Compare and contrast these two poems (printable sheets included) to introduce kids to the idea that just like plants, brains can grow! These lesson concepts are based on three decades of systematic research by Carol Dweck, professor of psychology at Stanford University on Growth Mindset vs Fixed Mindset. NED's message of Never give up, Encourage others, Do your best can help your students achieve their potential, embrace challenges, persist in the face of setbacks, and see mistakes and failures as a necessary to grow and master useful skills.

### Key Vocabulary

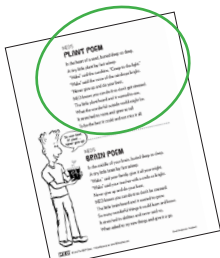
**Growth Mindset:** *Everyone has a brain! Your smarts and abilities can grow if you challenge yourself and exercise your brain by trying new things and doing your best all the time. You may not always succeed at first, but you can't give up – you will make mistakes but you must keep trying and learning from your every mistake. NED calls this having a “GO BRAIN”.*

*Mistakes help your brain to grow. Every mistake is a step closer to success. Don't say, “I can't do that.” Instead say, “I can't do that YET.” Keep your brain growing and learning. NED reminds us to believe in ourselves and the power of our brains.*

**Fixed Mindset:** *Some people believe or*

*act as though some brains are better than others. If you have a fixed mindset, you believe that it doesn't matter how hard you work, you just can't get better at it. NED knows that if you do your best – your best will get better. NED calls this having a “Brain Freeze”.*

*If you have a fixed mindset, you don't want others to know that you haven't learned something yet, so you might pretend to know things that you really haven't learned yet. You might be afraid to try new things because you might fail and once you make a mistake, you don't want to try again or try a different way. NED says to never give up and keep trying so you will learn something new each time and eventually get better at it.*



PRINTABLE  
**NED's Poems**

## Building Background

Read NED's Plant Poem

Have a classroom discussion or have students work in small groups to pre-think their ideas.

**1. How does a plant grow? What does it need to grow? Can you do anything to make a plant grow better? Can you do anything to make a plant stop growing?**

*Answers will vary. A seed needs dirt, water and sunlight to grow.*

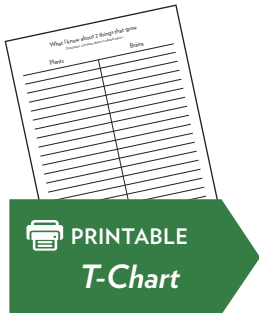
**2. Does talking to a plant help it grow?**

*Answers will vary*

## Before Reading

# How to Grow A Brain

Introducing Growth vs. Fixed Mindset



PRINTABLE  
T-Chart

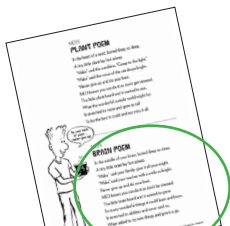
Create a T-chart as a visual during classroom discussion or print for student use if grade appropriate.

## 1. Does your brain grow like a plant grows? How is it the same/different?

Answers will vary.

## After Reading Discussion for NED's Brain Poem

PLANT	BRAIN
Starts from a tiny seed	Starts small and gets larger.
Seed eventually goes away as plant grows	Brain gets bigger and bigger but never goes away
Seed needs sun (light), oxygen, water, and nutrients in soil to grow	Brain needs water, food, exercise to grow
Roots are like branches that connect the plant to water	Nerve cells are like branches that connect to other nerve cells to allow you to think and solve problems.
The bigger the plant, the bigger the roots	The more new things you learn, the more your brain cells grow.
Plant gets stronger as it grows – stem thickens and can support more weight	Brain changes and gets stronger when you use it. It shrinks and gets weaker if you stop using it
Takes time for a baby seed to grow into a full-size plant and flower	Brain takes time to grow. Babies don't know everything on Day 1 - they haven't learned it YET.
Feeding a plant, regularly, can help it grow	Feeding a brain healthy food and exercise can help it grow
Some plants have a long life (Example: trees)	Brain has a long life.



PRINTABLE  
NED's Poems

Read NED's Brain Poem

## 1. How does a brain grow? What does it need to grow? Can you do anything to make your brain grow better? Can you do anything to make your brain stop growing?

Answers will vary.

## 2. Compare and contrast these two poems. How is a growing brain the same/different from a growing plant?

Answers will vary.

## 3. Does talking to yourself help your brain grow?

Answers will vary. Discuss mindset and how self-talk can help you have a growth mindset

## 4. What are the advantages of using your "GO Brain" instead of having a "Brain Freeze"?

Answers will vary.

**Teacher Note:** Use Question #3 to kick-start a discussion on ways to talk to yourself that would grow your brain. Discuss mindset and how self-talk can help you have a growth mindset. Point out that some self-talk can grow a brain (and create 'brain fireworks') or put a brain to sleep.

## Writing Prompts

Here's how I can grow my brain...

Write what you learned about growth mindset. What can you do to grow your brain?

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*Even though it didn't work, I used my "GO Brain..."*

Think about a time when you did your best and didn't give up but you had a growth mindset.

## Activities

**Dear Brain** What would you say to your brain if you could give it a self-talk message? Follow the format of a friendly letter with heading (date, greeting), body and closing (signature).



 PRINTABLE  
Card Set

**Two Sides to Everything** Use the double-sided cards for classroom discussions on what you could say to yourself to change from a Fixed Mindset to a Growth Mindset. Read the Fixed Mindset side first and ask kids to brainstorm things they could do to change from a "Brain Freeze" to a "GO Brain". A possible idea is printed on the growth side of the card but students should easily come up with many additional ideas.

## Home Connection

**Teaching Growth Mindsets** - Kelly Corrigan's video for parents  
[www.youtube.com/watch?v=OhLJPhxuvGM](http://www.youtube.com/watch?v=OhLJPhxuvGM)

Direct parents to watch this compelling conversation between a parent and Dr. Christine Carter, executive director of the Greater Good Science Center. This four and a half minute video is part of a discussion series called HALF FULL - Social Science for Raising Happy Kids.



## For more info...

**"You Can Grow Your Intelligence"**

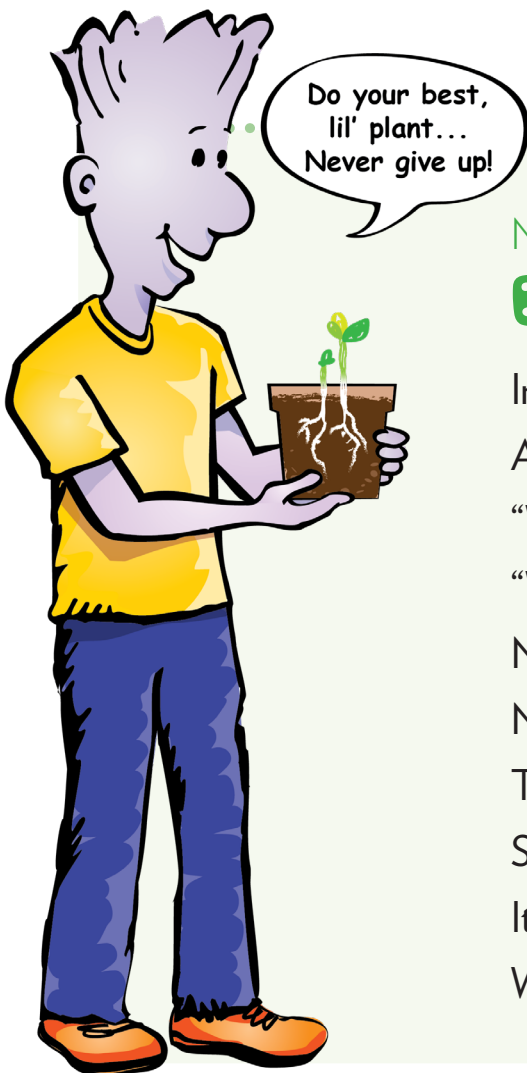
Article from [www.mindsetworks.com](http://www.mindsetworks.com)

PDF available at <https://bit.ly/1URVOAd>



## NED'S PLANT POEM

In the heart of a seed, buried deep so deep,  
A tiny little plant lay fast asleep.  
“Wake” said the sunshine, “Creep to the light.”  
“Wake” said the voice of the raindrops bright.  
“Never give up and do your best,  
NED knows you can do it so don't get stressed.  
The little plant heard and it wanted to see,  
What the wonderful outside world might be.  
It stretched its roots and grew so tall  
To be the best it could and not miss it all.



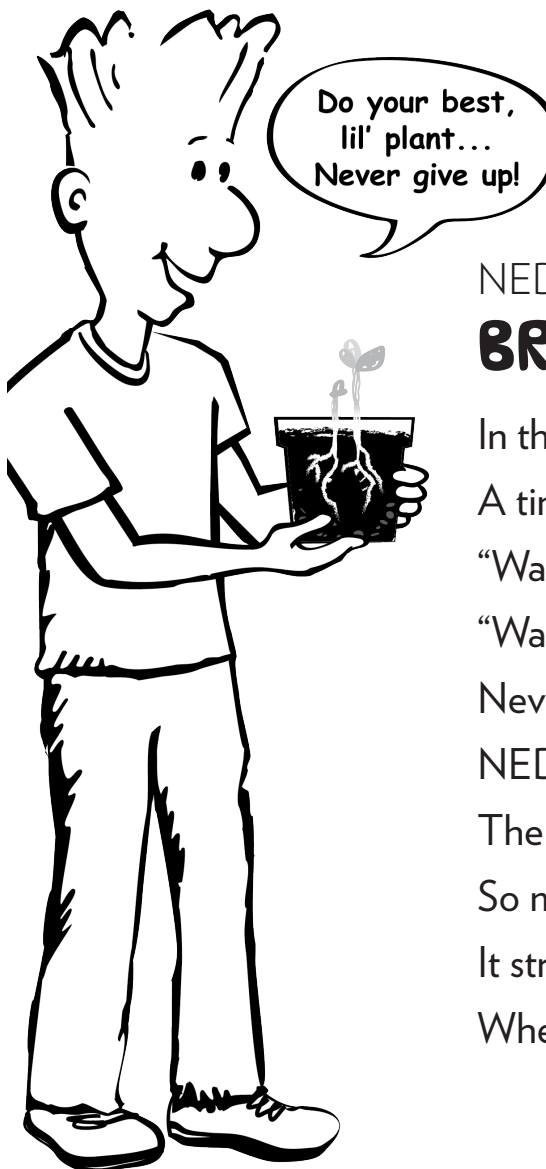
## NED'S BRAIN POEM

In the middle of your brain, buried deep so deep,  
A tiny little brain lay fast asleep.  
“Wake,” said your family, give it all your might.  
“Wake” said your teacher with a smile so bright.  
Never give up and do your best,  
NED knows you can do it so don't be stressed.  
The little brain heard and it wanted to grow.  
So many wonderful things it could learn and know.  
It stretched its abilities and never said no,  
When asked to try new things and give it a go.

NED'S

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# T-Chart: What I know about 2 things that grow

Directions: List facts about 2 related topics.

Plants

Brains

**I'm not good at this**

**I can't do this**



**I give up**

**I'll never be that smart**

**It's good enough**

**Plan A didn't work**

**I can't make this any better**

**My friend is 'the smart one', not me**

**This is too hard**

**I ruin everything**

**I made a mistake**

Write your own

**I can't do this YET**

**Ask yourself "What am I missing?" "What could I do to get better?"**



**I will learn with more time**

**I'll try a different strategy**

**There's always Plan B**

**Is this my best effort?**

**We are both smart**

**I can always improve**

**I believe in myself**

**This may take some time**

Write your own

**Mistakes help me to learn**