# Developing a Growth Mindset to Change the Way Students Think About Stress

"All powers are within you. You can do anything and everything."

—Swami Vivekananda

## Overview

Students learn what stress is and how to use it in a positive way to develop powerful new skills and strengthen their brains. They finish by writing a short essay on this topic to help future students.

## Planning for it

### When you might use this practice

- At the beginning of the school year when setting up a safe and supportive learning environment
- Before an exam or other challenging academic task, especially in STEM classes
- When students’ grades are declining
- During advisory (especially if advisory is designed to support students’ social and emotional well-being)

### Time required

- 35-45 minutes + homework

### Level

- Middle School (especially 8th graders as they prepare to transition to high school)
- High School (especially 9th and 12th graders to help them with the transition to high school and college/workforce, respectively)

### Materials

For each student:
LEARNING OBJECTIVE

Students will:

- Understand that they strengthen their brains when they tackle hard tasks
- Learn that the body’s stress response can be used to energize their performance on a task
- Strategize how they can use this science about their brain and their body’s stress response to help them face academic challenges
- Write a short essay for future students explaining how this science can help them overcome academic challenges

ADDITIONAL SUPPORTS

- Making practices culturally responsive
- Adapting practices for students with special needs
- Making classrooms and schools trauma-informed and healing-centered

SEL COMPETENCIES

- Self-Awareness
- Self-Management

HOW TO DO IT

REFLECTION BEFORE THE PRACTICE

- Take a moment to read through the New Secrets of Success handout.
- Next, think of a challenging task that you have recently faced that you didn't think you could handle. How did your body respond? Did your heart pound? Did you get knots in your stomach?
- How might you use the energy generated by your body’s stress response to tackle this challenge?

TO THE TEACHER

For many of us, facing challenges—simple or hard—is not fun. Our hearts may pound, our stomachs may twist and turn, and we may have a difficult time concentrating. While it’s natural to feel stress at times like this, how we respond to that stress is what determines whether we tackle the challenge head-on or run away without even trying.
Research has found that responding negatively to stress can lead to numerous physical and mental health problems. Teens, in particular, are susceptible to the impact of stress due to the enormous challenges they face in trying to survive and thrive in an increasingly competitive and unequal world.

Scientists, however, have discovered that teaching students how to approach academic stressors with a growth mindset gives them agency to handle these stressors.

This research-tested practice focuses on changing students’ beliefs about their ability to deal with challenging tasks and the stress they feel when they are faced with a challenge. First, students learn about growth mindset, or the belief that abilities can be developed. When people operate with this kind of mindset, they tend to appraise difficult situations (such as critical feedback from a teacher or a bad grade on a test) as an opportunity for growth and learning, rather than as a hopeless sign that one lacks ability.

Second, the practice conveys a stress-can-be-enhancing mindset, which is the idea that our stress responses can be a functional tool for optimizing performance. This mindset contradicts what most people have been told their whole life: stress is bad for you, it should be avoided, and it will undermine your goals.

INSTRUCTIONS

Before students arrive, write the following statement on the whiteboard:

- We’re having a test right now.

PART 1 (10 MINUTES)

- When students walk into the classroom, give them a moment to read the whiteboard and respond naturally to what it says. What do you the teacher notice about how students are responding? Are some of them expressing anger or fear? Do you see physical signs of stress, such as fidgeting or sweating?
- After students are seated, let them know that they are not having a test today. Instead, explain that this was an exercise for them to notice their response to having to take an unexpected test.
- Take students through a breathing exercise to help them regulate their bodies after this experience. For example, Breath Counting Mindfulness Practice or simply have them breathe in for 3 and out for 6, doubling the exhalation. (For more research-based ways on how to calm ourselves using our breath, watch this video by Long Beach Unified high school educator & psychologist Michael Gray or read this article from Greater Good.)
- Ask:
  - How did you feel about having an unannounced test today?
  - How did your body respond? Did your heart start to beat faster? Did you start to sweat? Did you get knots in your stomach? Something else?
  - What was going through your mind? Were your thoughts going crazy? Did you think about how you could get out of class? Did you get energized by the thought of a challenge? Did you think you might fail or pass or throw up?
  - So, what’s happening within our bodies and minds when we’re faced with an unexpected challenge that we don’t think we can handle?
- Explain:
  - Everything you’re feeling is how our bodies respond to stress. It’s a survival instinct left over from the time we had to get away from potential predators.
We feel threatened when we believe the demands placed on us (the things we have to face or do) outweigh the resources we have.

For example, you know you are no match for a lion. Your resources—such as strength and speed—are no match for the lion’s power. So you would feel threatened if you ran into a lion, but not if you came across a housecat.

The fact is that we no longer have to outrun lions, but our society still holds a belief that all stress is bad—yet scientists have found that this just isn't true.

Indeed, research shows us that if we can better understand stress and our reactions to it, we can use stress for our benefit. Scientists have found that stress can actually motivate us and make us more productive. In other words, if we change our beliefs about our ability to learn and about stress, we can actually use stress as a resource to thrive when we face challenging situations or experiences.

The goal isn’t to become fearless, it’s to learn how to work through fear. Athletes feel anxious before a game, musicians get knots in their stomachs before performing, but they use the stress that they’re feeling to fuel their performance. We can learn how to do that, too.

Tell students:

Today we are going to learn about how we can use the stress of school to develop powerful new skills and strengthen our brains, rather than have stress overwhelm us.

This makes us prepared to accomplish the things we want in life and helps us to contribute to the world around us.

We’re also going to help future students understand how to do this, as well.

PART 2 (20 MINUTES)

Give each student a copy of the *New Secrets of Success* handout.

Explain that they are to both read and complete the questions. Tell them that their responses won’t be read by anyone, not even you. Instead, this is an opportunity for them to learn about themselves and think about how they might use what they learn to help them respond more positively to academic challenges such as test-taking.

CLOSURE (5 MINUTES)

After students have completed the handout, take a few minutes to discuss their experience or have them write a short piece in their journals summarizing what they learned from this lesson.

What happens to your body when you have a stress response? (e.g., your heart beats faster because it’s delivering an extra liter of oxygenated blood to your muscles and brain each minute; your muscles and brain generate extra heat when they work harder, making your body sweat to cool down; your body releases catecholamines (hormones like adrenaline) that boost physical strength and mental sharpness.)

How can you use your body’s stress response to tackle a challenge?

What surprised you about what you read? Was it helpful? How?

How do you think having this information might change a person’s response when faced with a challenge?

HOMEWORK (THIS CAN ALSO BE DONE IN CLASS IF THERE IS TIME)
• Give each student a copy of the Help Explain This to Other Students handout.
• Explain that they are to read what other students have written about these ideas and then write their own two to three paragraph explanations that can be given to future students.
• Collect their essays and save them to give to your new group of students next year.
• Another option is to have students create short videos to share with future students (be sure to check your school’s privacy guidelines about sharing videos).

EXTENSIONS

• Have students write down an event from the day or keep a daily diary for a week and note how this information shaped their reaction to it. What do they notice about their process for handling stress? Are there habits they need to develop or overcome?
• In pairs, have students create a mini-lesson for younger students that teaches them about how our brains grow through challenges, how the body responds to stress, and how to use that response to tackle a challenge.

REFLECTION AFTER THE PRACTICE

Do you notice whether students are responding more positively when faced with a challenging academic task?

THE RESEARCH BEHIND THE PRACTICE

EVIDENCE THAT IT WORKS

A study with a diverse group of 9th graders found that adolescents whose GPAs declined at the beginning of high school and who viewed their intelligence as a fixed entity (i.e., believing that intellectual abilities cannot change or improve with effort) were more likely to have higher levels of cortisol when compared to those who believed intelligence can improve. They also were more likely to report higher levels of negative stress and believed that they did not have the resources to cope with their daily stressors.

WHY DOES IT MATTER?

The way students view academic tasks at school can dramatically affect the levels of stress they experience in their body, their thoughts, feelings, behaviors—and even their grades. If they believe that they have the capacity to handle the stress that they experience when faced with academic problems, then it’s more likely that they will see these problems as opportunities to learn and grow in their abilities.

It’s crucial for adolescents to realize that they are not helpless when faced with academic problems, including the transition into a new school; they can grow and adapt, and learn to use the energy generated by stress to help them tackle new problems. This perspective releases some of the pressure they might feel, and then they can think more clearly about an academic problem as a challenge to solve rather than a threat to fear.