

# STRESS LESSONS

## From Stressed Out to Chilled Out

### Program for Grade 7-9 Classrooms



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## The Psychology Foundation of Canada

### Mission Statement:

The Psychology Foundation of Canada applies the best psychological knowledge to create practical programs helping children become confident and productive adults.

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"Success in school depends upon a student's ability to somehow decrease their stress. The inclusion of stress-management techniques into the curriculum is an obvious application of neuroscience to education that can improve learning, emotional well-being, and physical health. Teachers can use their warmth, empathic caring, and positive regard to create a state of mind that decreases fear and increases neuroplasticity and learning."

Cozolino, L. (2013). *The social Neuroscience of Education: Optimizing attachment and Learning in the Classroom*. WW Norton

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# Welcome to “From Stressed out to Chilled out”

The aim of this resource is to help educators create teachable moments to introduce stress-management strategies and skills and build emotional resiliency in their students and themselves. This resource is intended for adults who work with youth who are in grades 7 to 9, in classrooms and other educational and recreational settings. There are accompanying resources for students, as well as family members and other caregivers.

## Goals of the program

The goals of the program are to:

- Provide educators with a psychologically sound Canadian learning resource that’s relevant to a range of curriculum requirements.
- Provide students with opportunities and specific skills that will foster their social and emotional competence, resilience and well-being.
- Help educators and recreational staff create emotionally healthy learning environments by promoting self-awareness, empathy and mindfulness.

## Rationale for the program

**Grade 7 to 9** is a time when students are facing a whole range of new developmental, social and academic stressors and pressures as they transition from childhood to adolescence. Researchers believe children at this age may have a heightened sensitivity to stress due to aspects of brain development and hormonal changes that affect brain function.<sup>2</sup>

When students are stressed, they can’t learn. Educators have long known that the optimal mind/body state for a student is one of relaxed alertness.

Stress-related problems affect a student(s) performance in school, and many stressors are related to the school environment. Excessive stress can have a dramatic effect on learning and social development. It can interfere with executive functions such as attention, memory, organization and integration. And, over time, it can damage brain cells and shrink main memory structures. Long-term, excessive stress can also cause digestive problems, stunt growth, and cause chronic health problems such as hypertension, heart disease and a weakened immune system, to name just a few.<sup>3</sup>

School can be a stressful place for students and educators alike. The cumulative demands and expectations to achieve academically, socially and in extra-curricular activities can sometimes be overwhelming. A growing body of research evidence suggests that stress can block chemical reactions in the brain that are necessary for learning.<sup>1</sup>

### Program Overview:

1. All about stress
2. Your brain on stress
3. Coping with it
4. Rethinking stress
5. Making positive choices
6. Review and final project prep
7. Final project presentations

## Background to the program

Created in response to demand from Canadian teachers and other education professionals, this program has been developed in collaboration with a range of experts including educators, counsellors, stress experts and psychologists. The program takes a primary prevention<sup>4</sup> approach, so that it is equally relevant to all students, and teaches valuable self awareness and stress management strategies that will serve young people well as they prepare to go on to high school, and throughout their lives.

### The program:

Strong and supportive relationships between teachers and students are fundamental to the healthy development of all students in schools.<sup>5</sup>

- Is engaging, fun and student-centred.
- Is grounded in evidence and current research about the teen brain.
- Uses an inquiry-/ project-based approach to help young people develop stress-management skills.
- Helps students understand what are “normal” stress levels and when to seek help.
- Reflects the increasingly important role that self-regulation is playing in educational settings. Builds on existing curriculum and fits well with the 21<sup>st</sup> century, making it easy for teachers to incorporate
- Addresses a range of learning styles.
- Can help you learn skills to deal effectively with your own stress.

### Research base

It is now well established that social and emotional skills, such as the ability to manage our emotions and interact well with others, play a significant role in academic achievement and overall success. This program is grounded in research demonstrating the effectiveness of school-based stress reduction and social-emotional learning programs.<sup>6</sup> Since childhood stress is a precursor for adulthood stress and stressful life events have been shown to be related to reduced academic performance,<sup>7</sup> it is important that students are taught effective strategies for stress reduction. Research indicates that stress reduction programs in schools lead to improvements in academic performance, self-esteem, mood, concentration and behavioural problems.





## Your important role

Parents are not the only important adults in the lives of young people. Resiliency research attests to the over-arching significance of adult mentors and role models, especially for young people who face educational disadvantage or who may have problems at home. In many studies, the single most important factor in long-term success is the presence of an adult, whether a relative, teacher or community member, who provides a consistent nurturing presence in a young person's life.<sup>8</sup>

As key role models in students' lives, educators have a critical role to play in helping teach and demonstrate effective stress management. For many educators, this process begins with becoming more aware of the impact of their own stress in the classroom setting.

"Teaching effective stress management involves tuning into your own levels of stress. How you deal with your own stress is linked to how you help teens, how they experience stress, and how they learn to cope with their stress."

**Robin Alter, Ph.D.**

**Trustee, Psychology  
Foundation of Canada**

## Teacher self-reflection

- Kids model what they see. How do you deal with stress in the classroom?
- What are your triggers for stress and how do they impact you?
- What healthy/unhealthy behaviours have you adopted for dealing with stress?
- What concerns, if any, arise in you when considering teaching this material?

## Teacher tips: Reducing your own stress<sup>9</sup>

- **Take a break.** Make sure to take time for yourself during the day, to listen to music, take a few deep breaths, meditate, write in a gratitude journal, do a few stretches, take a brisk walk or do some other activity that helps you feel restored. Try to incorporate these rejuvenating breaks into every day to restore your energy reserves.
- **Make time** to meet with colleagues, not just for debriefing, but also to have a chance (on a regular basis) to discuss individual students who may be challenging, or to share fun activities together.
- **Shift your perspective.** When you feel yourself becoming stressed in the classroom, try to think of the situation as a challenge. Keep a positive attitude and realize that you cannot control everything that happens in your classroom, but you can react to situations proactively. Students will eventually follow your lead when they are in your classroom.
- **Aim to get seven to nine hours of sleep each night.** Research has shown that getting five hours or less of sleep a night can create health problems. Getting enough sleep also helps you to better deal with the stresses of everyday life.
- **Prioritize so that you don't feel overwhelmed.** Regularly review and analyze the tasks that you perform at work and at home and try to determine which ones are necessary and which ones can be eliminated, reserved for a later date, or even delegated to someone else. Learn to say no when you have enough on your plate.
- **If you regularly commute long periods of time to work and back, try to reduce your stress levels on the road.** You might try leaving a bit earlier and taking the back roads to enjoy the scenery or avoid traffic, listening to your favourite music, carpooling with others, or taking public transit so that you don't always have to drive. Keep a healthy snack in your bag or car so that you can refuel easily.

- **Take care of your physical well-being. Eat well to stay strong and healthy.** Doing so fuels you with the needed energy for life's everyday challenges. Consider decreasing or discontinuing your caffeine intake. Caffeine is a drug that creates a stress reaction in your body and can cause you to feel nervous or have problems sleeping. Exercise regularly (at least 30-60 minutes three times per week). Endorphin production following physical activity is nature's gift to you for stress management!
- **Be a lifelong learner.** Taking the time to learn through pursuing courses in professional development or personal interest can reduce stress and build confidence.
- **Utilize all of your vacation time and use it effectively.** Everyone needs some time off to de-compress. Even if you are not going away, try packing a picnic lunch by the water, setting up a hammock in a shady spot in your backyard to read, or visiting a spa for the day. If you do go away, try coming back a day early so that you have time to get organized and unpacked before you start work again. Try not to overload yourself with "things to do" on your vacation time. Allow yourself enough time to just do nothing, relax and enjoy the time away from your job.
- **If you get sick, stay home.** Take the time you need to get better.
- **Plan ahead.** It can go a long way towards reducing stress and anxiety. For example: plan your menu for the week or make some of your meals for the week on the weekend and freeze them; or, write down your tasks for the next day, the day before; or, keep your financial life on track, by deciding what you want for you and your family, and planning for the unexpected.
- **Set firm boundaries between your work and non-work time.** You can choose not to or when to respond to that email you received in the early hours of the morning! Build in a time buffer within your work and/or home schedule on a regular basis where you schedule NOTHING. You can use this time to regroup, relax or take care of unexpected things.
- **Write down three things you are thankful for each week, even if you find it hard.** It will help you focus on the positive instead of the negative. In other words, count your blessings, not your troubles. If you can manage it, volunteer in your community for an organization or people in need. It may help you to put things in perspective when you see how others can have even more stress in their lives.
- **Create a strong support system.** Develop meaningful relationships with co-workers, your family and your friends. Discuss stress-management techniques with your loved ones or co-workers. Start a yoga group, get a speed-walking partner or make use of the gym in your school. Use the resources around you to make your workplace more enjoyable.
- **List your stressors.** Take inventory of the things that make you feel pressured or upset and then decide on a plan to address them in a realistic and timely manner. Decide what you can and cannot change and choose coping strategies that help for each situation.
- **Limit the time you spend with "stressed-out" people.** Anxiety and stress are contagious because of "mirror neurons" in your brain. Remember that your students can also suffer the effects of second-hand stress from teachers who are stressed.

Everyone can benefit by reducing stress!



## Educational approach<sup>10</sup>

By their very nature, discussions that involve mental health and other factors that contribute to human health are bound to invoke controversy. Some teachers may view the potential for controversy as unattractive or overwhelming. They may worry about being asked questions for which they do not have answers.

A constructivist approach is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. This is ideal for teaching health literacy because it avoids setting the teacher up as the “health expert.” The role of a teacher is not to provide answers – it is to create a context of inquiry, and a place for thoughtful discussions and projects that involve issues relevant to their daily lives and futures.

A constructivist approach to teaching and learning recognizes that learners need time to

- Express their ideas.
- Interact with each other and develop a range of experiences on which to base their thinking.
- Reflect on their thinking by writing and expressing themselves, and comparing what they think with what others think.
- Make connections between their learning experiences and the real world.

By validating all students’ inquiries and providing them with sources of information, facilitators encourage young people to become engaged and active thinkers.

Here are a few basic guidelines:

- Remain neutral and acknowledge all contributions in an unbiased but questioning manner. By showing respect to all students regardless of their opinions, you encourage them to do the same.
- Insist on a supportive environment where students respond to ideas and not the individuals presenting those ideas. Make it clear from the start that everyone must be open to listening to and considering views that may be different from their own.
- Encourage all students to take part in discussions, but avoid forcing anyone to contribute if they are clearly reluctant. Ensure students know their feelings and opinions are important and will be respected.
- Keep discussions moving in a positive direction by questioning or posing hypothetical situations that encourage deeper thinking about the topic.
- Understand that consensus is not necessary on issues, and that a lack of consensus is in fact a better reflection of “real life.”
- Be comfortable with silence, as sometimes discussions require reflection.

## Links to your curriculum

The content of this program is most closely related to the health curriculum requirements in all of Canada's provinces and territories. This program is not intended to be viewed as an "add-on" resource but rather to complement and enhance the existing learning outcomes already specified by your region's curriculum guides. Additionally, the content lends itself to interdisciplinary study, meeting requirements in other learning areas such as Science and the Language Arts. The chart below outlines general connections between the content and areas of learning. For more detailed curriculum connections organized according to province and territory, please visit our website: [www.psychologyfoundation.org](http://www.psychologyfoundation.org).

Curriculum connections Lessons	What part of the curriculum does it relate to?
<b>Lesson 1: All About Stress</b>	<ul style="list-style-type: none"><li>• Health and Physical Education</li><li>• Healthy Living – mental health and emotional well-being, stress management</li><li>• Scientific Inquiry – relationships between science and social and environmental contexts</li><li>• Language – speaking and listening</li><li>• Group co-operation and collaboration</li></ul>
<b>Lesson 2: Your Brain on Stress</b>	<ul style="list-style-type: none"><li>• Life Sciences – Cells, organs and systems</li><li>• Scientific literacy</li><li>• Scientific inquiry – identifying practical problems to solve</li><li>• Analyzing and problem-solving</li><li>• Group co-operation and collaboration</li></ul>
<b>Lesson 3: Coping with It</b>	<ul style="list-style-type: none"><li>• Healthy Living – stress management, resiliency</li><li>• Personal and social development</li><li>• Physical Education – movement and relaxation exercises</li><li>• Critical and creative thinking</li><li>• Learning strategies – personal management skills, time management</li></ul>

Curriculum connections Lessons	What part of the curriculum does it relate to?
<b>Lesson 4: Rethinking Stress</b>	<ul style="list-style-type: none"> <li>• Understanding and expressing feelings</li> <li>• Interpersonal skills</li> <li>• Healthy Living – stress management and resiliency</li> <li>• Critical thinking – integrating new information with personal experiences and knowledge</li> <li>• Life Sciences – Cells, organs and systems – interconnectivity of systems and the environment</li> <li>• Learning strategies – personal management skills, time management</li> </ul>
<b>Lesson 5: Making Positive Choices</b>	<ul style="list-style-type: none"> <li>• Healthy Living – stress management, resiliency</li> <li>• Decision-making and problem-solving</li> <li>• Group co-operation and collaboration</li> <li>• Stress management versus risk management</li> <li>• Learning Strategies – personal management skills</li> </ul>
<b>Lesson 6: Review and Final Project Preparation</b>	<ul style="list-style-type: none"> <li>• Reading and Viewing</li> <li>• Writing and Representing – expressing ideas and developing understanding</li> <li>• Research and Inquiry</li> <li>• Group co-operation and collaboration</li> <li>• Critical and creative thinking</li> </ul>
<b>Lesson 7: Final Project Presentation</b>	<ul style="list-style-type: none"> <li>• Oral communication and presentation skills</li> <li>• Creative and critical thinking</li> <li>• Leadership skills</li> <li>• Scientific literacy – communicating scientific ideas</li> <li>• Volunteerism – promoting school-community health</li> <li>• Visual arts, drama</li> </ul>

## Program overview

### Lesson 1: All About Stress

Students are introduced to

- Basic information about stress and stressors
- The final project concept and potential themes

Students do a self-reflection exercise and are referred to other resources that will help them learn about themselves and choose a topic that fills them with energy and positive stress.

### Lesson 2: Your Brain on Stress

Students learn about the science of stress:

- Parts of the brain
- Impact of stress on the brain

Students confirm final project groups and topics.

### Lesson 3: Coping with It

Students learn

- How to respond effectively to different kinds of stress
- Simple, effective strategies that will help them return to a relaxed state after the stress response has been activated

### Lesson 4: Rethinking Stress

Students learn

- About thinking styles and positive self-talk
- Resilient thinking skills

### Lesson 5: Making Positive Choices

Students learn and practice the problem-solving process.

### Lesson 6: Review and Final Project Preparation

Students review what they've learned and work on their final projects.

### Lesson 7: Final Project Presentations

- Students present their final projects to classmates and others.

# Lesson 1: All About Stress

## Overview

By becoming aware of the stress reaction, students can begin to recognize the signs and symptoms of stress, and the impact it has on their behaviour, well-being and learning.

### Preparation

#### 1. Review all the activities in this lesson

#### 2. Make copies of

- Fast Facts About Stress – 1 per student
- You're Invited to Chill Fair! – 1 per student

#### 3. You will need

- Whiteboard and markers
- Scrap paper – 1 sheet per student
- Sticky notes – 5-10 per student

## Background

- Stress is a normal part of everyday life. Limited amounts of the right kind of stress can have a positive influence on motivation and creativity, but high levels of stress can affect students' ability to function in the short term and too much stress or stress for prolonged periods of time can have a dramatic effect on learning and social development. Excessive stress interferes with executive functions such as attention, memory, organization and integration.
- Learning to cope effectively with and recover from controlled or limited amounts of stress helps to "inoculate" against stress, so that we learn to cope with different stressors and increasing amounts of stress.<sup>11</sup>

### What Grade 7-9 students say stresses them out

- Pressure to do well in school
- Pressure to fit in with their friends and measure up to other people's expectations
- Problems with family, friends or in dating relationships
- Taking on too many things at the same time
- Having to decide what they're going to do when they leave school
- Pressure to try alcohol or other drugs or to have sex.

[www.howtochill.ca](http://www.howtochill.ca)

### Did you know...?

Experts estimate that as many as 75 to 95 percent of trips to the physician are stress-related – and increasingly, health experts are discovering the link between stress management and lifelong wellness.

Some psychologists believe that today's children are faced with more stress than the children of previous generations, and have fewer social supports available.<sup>13</sup>

## Activity: What stresses you out?<sup>12</sup> (10 min.)

- Write "What stresses you out?" for all to see.
- Give each student a piece of scrap paper and ask them to write down one thing that causes them stress in their life (e.g., homework, chores, siblings, parents, friends, sports, social media/texting, etc.). Tell them what they write will be shared anonymously with the rest of the class.
- Ask students to crumple up their piece of paper into a stress "snowball" and let them have a "snowball fight" for 1-2 minutes. (If desired, tell them: No throws to the face.)
- Have each student pick up a snowball and read it aloud. List the items on the board, adding the word "STRESSORS" on top. Use this opportunity to ensure students understand that there is a difference between stress and stressors. Too much stress or too many stressors at once, or not knowing how to deal with the stress caused by the stressors is what causes being stressed out!

**Stressors are the things that cause stress. Stress is the way you react or respond to those things.**

## Pair-Share Activity: All about stress (20-30 min.)

- Divide class into pairs. Give each student in each pair 5-10 sticky notes.
- Ask students to think about a recent situation(s) in which they felt really stressed out. If desired, give examples from your own life. Or use these examples of positive and negative situations that might cause some people to feel stress: making an important presentation, asking someone out or proposing marriage, getting stranded at an airport or on a carnival ride, losing your wallet.
- Tell student pairs they have 10 minutes (5 minutes each) to discuss details about their recent stressful situations, including how their bodies let them know they were stressed (the signs and symptoms they were feeling at the time).
- Ask students to record each sign or symptom they mention on a separate sticky note.
- While students are working, write these headings on the board: Body/Mind/Feelings/Behaviours.
- When ready, have students consider the categories on the board and then place their sticky notes where they belong under the headings.
- Read some of the responses aloud and ask students to reflect on the variety of signs and symptoms. Are there others they can add?
- Make note of how both positive and negative stressors can make our bodies react in similar ways (e.g., racing heart, sweaty palms, wanting to run away).
- Discuss the ways in which stress makes us feel (e.g. withdrawal, anger, shyness, worried, tearful, etc.). Do girls and boys experience these feelings differently?
- Wrap up by reviewing some of the key facts and concepts related to stressors and stress that you have talked about. Give each student a **Fast Facts About Stress** handout and discuss, drawing attention to the way even young people intuitively know a lot about stress from their own experiences and the experiences of others around them, though they may not realize stress can be managed or harnessed in positive ways.



### Introduction to Class Project: “Chill Fair”

Like a science fair, Chill Fair gives students a chance to creatively share information and ideas about positive and negative stress, and healthy ways to cope with and manage stress. Students could prepare display boards for their Chill Fair presentation but are invited to go beyond posters and pictures. They may choose to feature a stress experiment, put on a performance, showcase a stress-busting product they have invented, demonstrate a relaxation technique, or offer visitors something else unique to see or do at their Chill Fair display.

**Note:** You may want to expand the scope of Chill Fair and invite other students from other classes or grades to attend the event. Students may even want to work with other schools in their district and plan a larger event aimed at a larger discussion of stress management in your community.

## Class Discussion: Introducing the class project (20 min.)

- Read aloud: “Students today are under a lot of pressure as they struggle to cope with the demands of school, family and planning their future. But the greatest source of this pressure is the stress they place on themselves.”<sup>14</sup>
- Ask students what they think of that statement, and why. Then ask them if they believe young people would benefit from learning more about stress and ways to cope with pressure they put on themselves.
- Give each student a **“You’re invited to Chill Fair”** handout. Invite students to brainstorm ideas about projects they could undertake in groups – highlighting ways of sharing information, skills and approaches to help them with their classmates and others in the school.
- Set the date for the group project and discuss any special deadlines or rules around the event.
- Give students class time to think about and decide who they might want to work with, and think about the topic and approach/display style that interests them most.

**Optional activity:**  
**Video: What is stress?**  
**(4:41)**

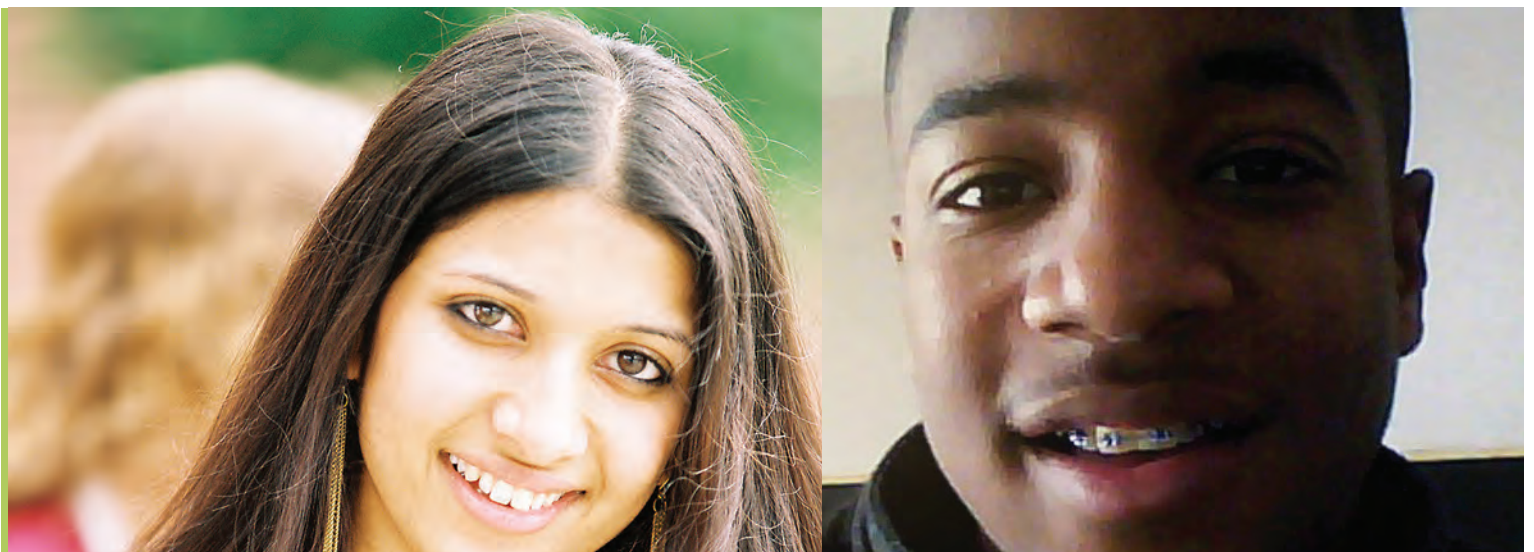
This brief video introduces the topic of stress for students and can provide a good starting point for ongoing discussion.



## Note: Alternative Assignment “Self-Reflection” (20 min.)

The “Chill Fair” class project allows students to develop a deeper understanding of stress and ways to positively cope with stressors by researching and making their own connections. However, if your class is limited for time, an alternative assignment – “Self-Reflection” – has been included.

- Give students the “Self-Reflection” handout.
- Ask your students to reflect on their relationship with stress by responding to the questions on the handout.
- This exercise will allow students to dig deeper into their current understanding of stress, stress cues and stress management.
- Ask students to complete it by the end of class or hand it in by the next lesson.



## Fast facts about stress

- We all feel stress sometimes. Stress is a normal part of everyday life.
- Stress is not the pressure from the outside – fighting parents, homework, exams, siblings, etc. Those are **stressors**. Your response to those situations constitutes **stress**.
- Stress is a physiological reaction (you feel it in your body) to challenges, expectations and pressures (meaning anything that threatens, challenges, scares, worries and/or thrills you).
- We all experience the same stress reaction – Fight/Flight/Freeze – but the things that stress each of us out (stressors) may be very different.
- Stress can be positive (exciting and energizing). It helps you get things done and you feel good. It motivates us to act – study, practise, do our best, etc.
- Stress can be negative. You can have too much stress or experience many stressors all at once, or you may not know how to cope with it, and it can make you feel overwhelmed.

## Did you know...?

- High levels of stress can affect your ability to function in the short term. Too much stress or stress for prolonged periods of time can have a dramatic effect on your learning and social development.
- Excessive stress interferes with executive functions of the brain, such as attention, memory, organization and integration.
- Learning to cope effectively with and recover from controlled or limited amounts of stress helps to “inoculate” against stress, so that we learn to cope with different stressors and increasing amounts of stress.<sup>15</sup>
- Over the long term, chronic stress (stress that lasts a long time) can cause health problems like heart disease, high blood pressure, digestive problems, etc. Or it can lead to the development of unhealthy coping behaviours (e.g., smoking, drinking, poor eating habits) that increase these health risks.

## You're invited to Chill Fair!

### What is it?

Chill Fair is a chance for you and your classmates to creatively share information and ideas about positive and negative stress and healthy ways to chill. You not only get a chance to use your talents to make and display your project, but you also get to visit and explore your classmates' displays.

### What do I have to do?

Over the next five lessons you will learn more about stress, stress management and prevention. You will also be given time to work on your project (though you may need to work on it for homework too). During the last lesson, Lesson 7, you will get a chance to both participate in and attend Chill Fair.

### How do I get started?

- Decide on a topic from the suggestions on the next page or feel free to be creative and make one that interests you! Something that fires you up, not deflates or frightens you.
- Decide on who you want to work with – by yourself or with a partner or a group.
- Think about how you might want to display your project. Create a poster? Set up an experiment? Put on a performance? Invent a product? Demonstrate a technique? Something else unique to see or do?

## Chill Fair suggested topics:

### 1. “Science of stress” topics

- **The stress reaction:** Fight/flight/freeze – What goes on in your body when you feel “stressed” (e.g., hormonal changes, system interactions)?
- **Chronic stress:** How is the body affected by chronic stress?

### 2. “Coping with stress” topics

- Discuss a healthy coping strategy for dealing with stress (e.g. healthy eating, physical activity, getting enough sleep, time management, mindfulness and meditation, breathing exercises, reframing your thinking, humour, social support, gratitude, technology, etc.). What are the mental and physical benefits of using this strategy? When is this strategy useful? What are important tips and points to remember?
- Discuss a negative coping strategy for dealing with stress (e.g. poor eating habits, substance abuse). Why **SHOULDN'T** you use this as a method for dealing with stress? What are the negative effects it has on your body, both short-term and long-term?

### 3. “Making stress work for you” topics

- How can you use stress to increase productivity? How can stress be used positively? What can it enable people to do?
- How is stress used as a performance-enhancer, for example, in athletes?
- Why are certain situations stressful for some but not for others? How can people alter their perceptions to turn negative stress into positive stress?

### 4. Quick List Topics (e.g., 10 ways to or 10 things that...)

- Ways to relieve stress quickly.
- Surprising things that might stress you out.
- Things you’ve never thought of to help cope with stress, etc.

### Some important things to think about for all topics:

- Why is your question important in helping us learn how to cope with stress?
- How can this information be applied to how you cope with stress every day?
- What other information might be relevant to teaching others about stress?
- Provide some examples, stories or visual aids to make your research easy to understand.

## Self-Reflection

Write about your relationship with stress. Use one or more of the questions below to help you get started.

- What does stress mean to you?
- What comes to mind when you think of stress?
- How does stress make you feel? How do you know when you're stressed?
- What kinds of things stress you out?
- Consider the positive side of stress and recall three occasions when the stress you were under actually helped you. Think of a situation when stress has given you more: energy/concentration/creativity/positive attitude/enthusiasm/motivation/determination.



# Lesson 2: Your Brain on Stress

## Overview

In this lesson students learn about the role key parts of the brain play in the stress reaction. Understanding the role played by brain structures such as the amygdala, prefrontal cortex and the hippocampus play in the stress reaction lays the foundation for learning more about how we can learn to manage stress and make positive choices.

“We’ve learned more about the human brain during the last ten years than throughout all of history.”

**University of Miami  
Brain Endowment Bank**

## Preparation

### 1. Review all the activities in this lesson

### 2. Make copies of

- Brain Quiz – 1 per student
- Teen Brain – 1 per student
- Making the Connection – 1 per group of 4 students
- Chill Tip – 1 per student

### 3. You will need

- Whiteboard and markers
- Small slips of paper – 2 sheets per student
- Project materials – i.e., trifold posterboards, computers etc.

## Background

- The teenage brain is a work in progress. The study of the brain (neuroscience) has made great strides over the past decade due to the development of magnetic resonance imaging (MRI) that provides accurate pictures of the living, growing brain and its activity.
- We once thought that the brain was fully formed by the end of childhood, but research has shown that adolescence is a time of profound brain growth and change.
- What would your life be like without any stress at all? Would you really want that?

“The brain isn’t fully mature until a person reaches their mid-twenties. The brain remains under massive construction for the first few years of life, then during the teen years undergoes an extensive remodel that lasts into adulthood.”

**Seigel, D., Bryson, T. (2011). The Whole-Brain Child. Delacorte Press: New York**

## Opening Activity: What do you know about the brain? (Pop Quiz) (10 min.)

### Optional Activity: Video Teenmentalhealth.org "The Teenage Brain" (3:30)

A brief, fun and informative introduction to adolescent brain development.

"The emotional brain responds to an event more quickly than the thinking brain."

Seigel, D., Bryson, T. (2011). **The Whole-Brain Child**. Delacorte Press, New York

- Remind students that during Lesson 1 they discussed the basics of stress (what it is, how it feels, how it can be helpful and harmful). (If desired, review the handouts from Lesson 1, remind students about the "Chill Fair" project and/or checking their reflection exercises.) You may also want to remind students that they will be spending the next few lessons learning new things about stress as well as working on their Chill Fair projects.
- Introduce the first new topic, the science of stress, by posing this question: When you encounter a perceived threat or are placed in a stressful situation, what part of your body is the first to react? Accept a few answers, if necessary, but ensure they understand that it is your brain that reacts first.
- Ask students what else they know about the brain and the impact of stress. Acknowledge their answers. Then tell them you're going to further test their knowledge with a brain test. Give each student a **Brain Quiz** handout and give them a few minutes to answer the five questions.
- Briefly discuss the answers as a group. (All the answers are 'A'.)

## Class Discussion: All about the brain (15-20 min.)

- Explain to students that to really understand the impact of stress, we need to look inside the brain, and that understanding how stress affects our brain is a key part of learning that we can actually play a part in controlling how stress makes us feel and behave.
- Give each student a **Teen Brain** handout and walk through the information.
- In follow up to the final point on the human "fight, flight or freeze" response, ask students how stress typically impacts their own responses. Ask for a show of hands for each type of reaction. Then ask them why they think they might have different reactions. Accept a few answers and add your own comments, being sure to include this **key point**:

**Whether our response is to fight, freeze or flee, we know that the stress reaction has evolved to protect us, and that it serves us well in situations of real danger. But the amygdala doesn't always see the difference between real and perceived threats or what one imagines to be a threat.<sup>16</sup>**

- If desired and time allows, you may want to discuss these questions as a class or in small groups:
  - How are modern-day stressors different from the stressors that our ancestors had to deal with? For example, the stress of an upsetting text or photo versus an attacking wild animal.
  - When can the stress reaction help us out in our everyday lives? (In what situations is it good to act before thinking?)
  - When can it be a problem? (Can you think of a situation when your stress response system kicked in and it turned out to be a "false alarm" like freezing up while taking a test, before a performance, etc?)
  - Separate boys and girls into two groups to discuss what they find stressful. Have sharing around general themes when regrouped. What similarities are there between how boys and girls experience stress? What's different?

### per-ceive:

transitive verb/per-seev

1

**a:** to attain awareness or understanding of

**b:** to regard as being such  
<perceived threats>

<was perceived as a loser>

2

**a:** to become aware of through the senses; especially see, observe

**www.merriam-webster.com/dictionary/**

### Small Group Activity: Make the Connection exercise (15 min.)

- Arrange students in groups of four. Give each group a **Make the Connection** handout, and give each student two slips of paper.
- Ask students to read through the instructions and complete the exercise with their group members.

### Individual/Team Activity: Group projects (10-15 min.)

- Invite students back to their seats and ask them to pull out their project-related handouts. Remind them they have had time to think about how they want to work and what topic(s) interest them most.
- As each individual or group declares a topic, give them a trifold display board and allow them time to start discussion and plan early project details.

“With intention and effort, we can acquire new mental skills. When we direct our attention in a new way, we are actually creating a new experience that can change the activity and ultimately the structure of the brain itself”.<sup>17</sup>

### Lesson Wrap-Up

- If desired, tell students that during the next lesson they will be learning about ways to chill out when things start to get stressful. You may even want to give students a **Chill Tip** handout as an early example. (It may be helpful for some of the groups who are discussing and planning a display featuring ways to manage stress.)



## Teen Brain<sup>18</sup>

While stress affects all people's brains, regardless of age, it can have a particularly significant impact on teenagers' developing brains. We are going to learn a bit about some of the unique things that are happening inside the teen brain – so we can better understand ourselves and what makes us behave the way we do.

There are three key parts of the brain that play a role in how we react to stress:

**Amygdala** – “the Security Guard” – is part of the limbic system. It is responsible for basic functions like breathing, swallowing and protecting us from threats with a stress reaction (fight/flight/freeze). The amygdala's job is to quickly process and express emotions, especially anger and fear.

**Hippocampus** – “the Manager” – helps to manage our response to fear and threats, and acts like a storage vault of learning and memory.

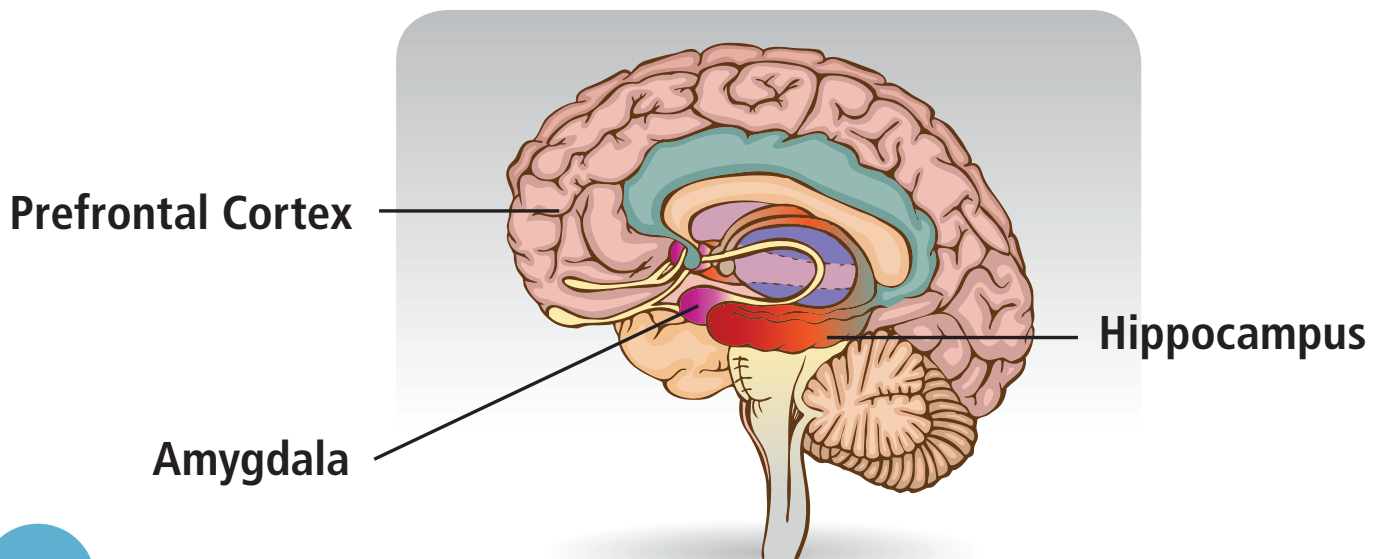
**Prefrontal cortex** – “the Planner” – is the learning, reasoning and thinking part of the brain. It controls decision-making, planning, focusing attention and problem-solving.

### Did you know...?

The brain's response to stress is linked to the function of the limbic system, in particular the amygdala, which serves as an information filter which is regulated by our emotional state.

When we're calm, the filter is open and information flows to the prefrontal cortex, where executive functions happen (problem-solving, planning, complex thoughts, attention and focus, discipline, flexible thinking, etc.)

When we're stressed, the filter becomes blocked, and information doesn't pass from the amygdala to the prefrontal cortex, where our executive functions happen, where we consciously process information, think things through and choose how we will respond. When the filter is blocked by the amygdala, we are stuck in reaction mode: Fight, flight or freeze.



## Brain Quiz

1. The teenage brain is a work in progress. The study of the brain, known as \_\_\_\_\_, has made great strides over the past decade due to the development of magnetic resonance imaging (MRI) and other technologies, which provide accurate pictures of the living, growing brain and its activities.

**a) Neuroscience**

**b) Brainology**

**c) Craniology**

2. We once thought that the brain was fully formed \_\_\_\_\_, but research has shown that adolescence is a time of profound brain growth and change.

**a) by the end of childhood**

**b) by age 5**

**c) at the time of birth**

3. Between childhood and adulthood, the brain's neurocircuitry (wiring) becomes more complex and more efficient, especially in the brain's \_\_\_\_\_.

**a) prefrontal cortex**

**b) amygdala**

**c) grey matter**

4. Puberty is a time of heightened sensitivity to \_\_\_\_\_ due to aspects of brain development and hormonal changes that affect brain function.<sup>19</sup>

**a) stress**

**b) bee stings**

**c) junk food**

5. The greatest changes to the parts of the brain that are responsible for impulse-control, judgment of risks and rewards, decision-making, planning, and organization and processing of social and emotional information occur in adolescence. This area of the brain (prefrontal cortex) does not reach full maturity until around age \_\_\_\_\_.<sup>20</sup>

**a) 25**

**b) 21**

**c) 19**

## Make the Connection

### Instructions:

Take two slips of paper and write down two situations where your amygdala might signal danger – one where the threat is real and one where it is not. (If desired, use the empty space below these instructions, cutting it into small slips of paper.)

Fold up your slips of paper and put them in a group pile.

Take turns picking a slip of paper and reading it aloud, then leading a brief discussion with these questions:

1. What's the worst thing that could happen?
2. What's the best thing that could happen?
3. What's most likely to happen?
4. Do you usually think the best thing or the worst thing is going to happen?

During each discussion, link your answers to the roles of the different parts of the brain and "make the connection."



## Chill Tip

Acting before thinking can be a helpful reaction when we're in a dangerous situation, but acting or reacting without thinking isn't usually helpful in most normal, everyday situations we find ourselves in these days.

When we're not truly in danger, we want to think before acting. There are many ways we can teach our brains and bodies to do this. Here's an easy way:

### COUNT TO TEN

When we consciously process sensory input, there's a buffer between that input and response. This gives the prefrontal cortex time to analyze, interpret and prioritize information, allowing our brain to choose the best course of action. It gives a message to the brain that you're in control, everything is cool, and the brain can do its job of thinking rationally and effectively.

Have you ever counted to ten when you've been angry?

Try it next time.

#### **It works!**

Remember: As a teenager, "Amygdala thinking" (or extreme emotional thinking) is normal because your brain is still developing, especially the prefrontal cortex. Practising some of the stress-management tools (such as counting to ten) can help develop your brain. It may also make you feel much better and take away some of your stress.

# Lesson 3: Coping with It

## Overview

In Lessons 1 and 2, students learned about the stress response and explored the signs and symptoms of stress, and discussed the particular stressors that are common for students in grades 7 to 9. Students also looked at the functions of the different parts of the brain (amygdala, prefrontal cortex and hippocampus) in responding to stress and stimuli.

In this lesson, students will begin to explore a range of strategies that can help them regain a calmer state after the stress response has been activated.

## Preparation

### 1. Review all the activities in this lesson

### 2. Make copies of

- Stress Management Detective – 1 per student
- Individual Reflection – 1 per student

### 3. You will need

- Whiteboard and markers

## Background

- Research has shown that a ten minute daily stress-management intervention delivered in the classroom can decrease feelings of anxiety and improve students' ability to relax and learn.<sup>21</sup>
- Research shows that when we change our physical state (e.g., through movement, relaxation or mindfulness) we can change our emotional state.<sup>22</sup>
- Mindfulness – the state of actively being aware and attentive to the present in a non-judgmental manner – has been taught in education settings with promising results. Research shows that students who receive mindfulness training are better able to self-regulate their emotions and attention. Additionally, mindfulness strategies can act as a buffer to the negative effects of too much stress.<sup>23</sup>

## Review Discussion: Stress and the brain (5-10 min.)

- Make three large columns on the board and label them with the terms “amygdala,” “hippocampus” and “prefrontal cortex.”
- Ask students to help you fill in the columns with key facts and information they learned during the last lesson. Be sure your discussion includes the role of the amygdala in stress response (fight or flight reaction) and the role of the prefrontal cortex in processing sensory input and helping us to respond calmly and make positive choices.
- If desired, tell students that during this lesson they will be identifying and learning about ways to manage stress. Remind them that what they learn today can be used to enhance their final projects.

## Pair-Share Jigsaw Activity:

### Identifying stress-management strategies (20-25 min.)

- Divide the class into pairs and give each student a **Stress Management Detective** handout. Tell students they have five minutes or so to discuss the topics with their detective partners and write their answers in the boxes. Tell them it is okay if they cannot fill all their boxes because they will be talking to other students later and will have a chance to add to their lists.
- After student pairs have had time to talk and record some of their thoughts, ask students to get up and mingle with at least two other students. Instruct them to take turns “interviewing” one another, looking for new details and information to add to their stress-management grids.
- Ask students to return to their seat and recap some of the key responses. If students are struggling, you can help them by asking them, “What really makes you feel better?” and offering the following information:
  - **Ways to care for ourselves:** Maintain good mental and physical health through a healthy diet, exercise and sleep.
  - **Strategies for calming down:** Stretching, breathing, creative visualization, mindfulness, reframing failure, listening to music/dancing, “Parking” worries, helpful self-talk (having realistic goals, reality checks, not jumping to conclusions or thinking the worst is going to happen, etc.)
  - **Examples of how problem-solving can reduce stress:** Simply seeing problems as “things that can be solved” can help to reduce our stress. (Problem-solving is just a series of steps which include: Identifying the real underlying issue/problem, going through the problem-solving process, reviewing and assessing whether it works or finding other solutions.)
  - **How to cope with stressors that can’t be prevented or avoided:** Adaptation strategies like breathing, creative visualization.
- Give each student an **Individual Reflection** handout and encourage them to use it as their own “stress detective” of sorts, now and in the future. If desired, you may want to ask them to complete it and hand it in next lesson.

## Class Activity: Strategy demonstration (30 min.)

- Explain to the class that they are going to learn how to practise two stress management strategies: mindfulness and creative visualization. Remind students that they may want to do a demonstration of their own as part of their final project display and presentation.
- Refer to the **Mindful Breathing** and **Creative Visualization** sheets (see following two pages) and walk the class through the exercises. If desired, you may want to ask a student to lead each exercise. Or you could break the class into groups, send them into different areas and have group leaders demonstrate the strategies. (You will need to make a photocopy of each strategy for each group leader.)
- If time allows, give students time to discuss/work on their final projects.

## Class Activity: Mindful breathing (5 min.)

"Breath is the bridge that connects life to consciousness, which unites your body to your thoughts.

Whenever your mind becomes scattered, use your breath as the means to take hold again."

**Thich Nhat Hahn**

- Explain to the class that mindfulness is a way to be aware of your thoughts and feelings in the present moment. You can use mindfulness when you start to feel as though things are spinning out of control, so you can stop worrying about what might happen and focus instead on what's happening now.
- One simple way of learning to practise mindfulness is by starting with our breath. We're breathing all the time, without thinking about it. But when we stop and focus our attention on our breath, it gives us an easy and immediate way of calming our stress.
- The best thing about using mindful breathing is that you can do it anytime, anywhere, and no one even has to know you're doing it. It can be as simple as breathing in slowly, on the count of four, and exhaling slowly, on the count of four, and repeating this five times.
- Now we're going to practise mindful breathing. Keep in mind the importance of your posture during this exercise; when the ears, shoulders and hips are in a line, the skeleton supports the body, allowing muscle tension to relax and breath to flow more easily. Good posture makes us feel good. When the body is still and comfortable, the mind can relax and find calm as well.
- Focusing on breathing slows down the heart rate, lowers blood pressure, and makes us more alert and focused. It overrides the amygdala's stress response and allows us to access higher brain functioning. So when we're anxious, worried or mad, slowing down the breath and turning inward for a minute can help to slow down the amygdala and make us feel better.
- Read aloud: "Become aware of your breathing. Focus on the feeling of coolness at your nose when you breathe in and the feeling of warmth as you breathe out. Count "one, two, three, four" as you breathe in and "one, two, three, four" as you breathe out. Repeat this ten times. Thoughts will come into your head. That's okay, just know that they are thoughts and just push them gently away and go back to counting your breath."
- Reflect with your students by making a list of potentially stressful situations that would be helped if they had a minute to practise mindful breathing. What difference do they think it would make?

## Class Activity: Creative Visualization<sup>24</sup> (15 min.)

Tell the class that another effective way of coping with stress is to use relaxation and guided imagery – taking yourself to a place in your mind that’s very beautiful to you, very peaceful, and very safe. Tell students that you’re going to spend the next ten minutes practising creative visualization – that you’ll read a script and they will focus on your voice, and try to keep their mind from wandering away from what you’re saying.

**Script:** Begin by paying attention to your breathing, and let yourself take a few nice, deep, full breaths. Let yourself breathe into your abdomen, bringing your breath all the way down into your belly, and allowing your out-breath to be a real letting-go kind of a breath. As if with that breath, you can begin to release any tension, or discomfort, or distraction that you don’t need to hold on to. You’re just using that breath to begin shifting your attention from the outer world to your inner world and to take a five-minute break and go to a place that’s peaceful and beautiful. And induce a state of peacefulness and relaxation centred within you. Let yourself imagine that when you breathe in, you’re breathing in fresh energy and oxygen that’s flowing through your whole body – because you are. And imagine that with every out-breath you just let go of a little bit of tension, a little bit of discomfort, a little distraction. So, you’re breathing in energy and relaxation, and you’re letting the out-breath be a real letting go of tension.

And you may want to allow your eyes to close because it’s easier to pay attention to your inner world that way. Let any outside sounds around you be in the background of your awareness. They’re not important to your purpose right now. If there is ever something you need to pay attention to, you’re able to open your eyes and do that.

But begin now to imagine yourself going to a place that’s very beautiful to you... very peaceful... very safe and secure – a place that you feel really good to be in. And this might be a place that you’ve actually been to in your life, or it may be a place you’ve visited before in your imagination. Or it can be a new place, some combination, or some place that you’ve never imagined yourself going to before. It doesn’t really matter. As long as the place you’re imagining is very beautiful to you... very peaceful... very safe. A nice place to be for a few minutes. Allow yourself to imagine going there as best you can in your own way. And look around and notice what you imagine seeing in this special, quiet, peaceful place. Notice the colours and the shapes and the things that you see there. And by the way, if there’s more than one place that comes to mind, simply pick the one that interests you the most right now. You can visit others at another time.

And so as you notice what you see, notice if you imagine hearing any sounds in this special, peaceful, quiet place. Or whether it’s just very quiet. You may even imagine an aroma, an odour or a fragrance in this place. And you may not. It doesn’t really matter. Just notice whether there’s an aroma or fragrance in the air. Notice the temperature and the time of day and the season of the year. Notice whether it’s very quiet or if there are things that are alive around you. And especially notice any feelings – any peacefulness, or relaxation, or comfort that you feel. And allow them to be there. And allow yourself to relax into them and to feel that relaxation, that peacefulness. Nothing else to do right now and nowhere else to go. Simply enjoying a few quiet moments in this very beautiful and peaceful place.

Find the spot where you feel most comfortable and allow yourself to get settled there. Simply enjoy a few quiet moments. Peaceful, relaxed, nothing to do, nowhere to go, enjoying the beauty and the safety. As you deeply relax in this place of beauty, peacefulness and safety, you can allow your body to recharge and your mind as well – even your spirit. Just drawing from this sense of deep restfulness and comfort that’s here.

And if this is a pleasant experience, you should know that you can come back here and enjoy this anytime of your own choosing, simply by deciding to shift your attention to your inner world, allowing your breathing to get deep and comfortable, and imagining yourself coming to this very beautiful, very peaceful, very quiet place. If your mind should wander or get distracted, simply take another breath or two and refocus your mind back into this beautiful, peaceful and quiet place and let this be your focus of attention for five minutes, or ten minutes, or twenty minutes – whatever period of time is right for you. And then when you decide to bring your attention back to the outer world, as I’ll invite you to do now, allow the images to fade but bring back with you any sense of relaxation, peacefulness, refreshment – a good feeling that comes from taking a little time to find that place of calm, quiet and peacefulness within you. And know that you can come back and visit this place anytime you choose. Also know that this place is always within you, and that by even remembering it or thinking about it, you can touch into that feeling of calmness, peacefulness and serenity and bring those qualities more and more into your daily life.



### **Stress Management Detective**

Things we can do to take care of ourselves when stress has gotten us down:

Ways to calm ourselves down after our stress response (fight-flight-freeze) has been activated:

Things we can do to cope with stressors that can't be prevented or avoided (like writing an exam, going to the dentist, getting sick, etc.):

Times/places/situations where using problem-solving might reduce our stress, or how to make stress work for us:

## Individual reflection

You can't get rid of all the stress in your life, and there are some kinds of stress that you just have to learn to live with and others you can turn into something positive. Managing your stress response a bit better and reducing your stress just a little bit will help you feel a whole lot better.

This activity will help you to become your own “stress detective.” You can use it to find out about things that cause you stress and what you can do about them.

Things that cause stress	Time of day stress occurs	What's your response? What are you doing about the stress now?	Is it helping?	What simple things can you do to reduce the stress or cope with the stress better?
For example:  Writing an exam.	During class.	Cramming before the test.	No, now I realized what I don't know so I am panicking.	Study proactively. Practise focusing on my breathing before the test.

How can you use the information you gather here to help you prepare for your final project?



# Lesson 4: Rethinking Stress

## Overview

Start this lesson by practising the mindful breathing exercise that was learned in the previous lesson. This activity takes five minutes and will allow students to practise this skill before continuing with additional strategies.

In this lesson students will explore the vital role that our thoughts play in the way we conceptualize and respond to challenges and stress. The goal of the lesson is to help students understand that they have power over their thoughts – and the messages they give themselves.

By challenging unconscious mental assumptions and learning how to recognize the positive and negative voices, we can learn to control our thoughts, shift the focus and reframe problems as opportunities.

## Preparation

### 1. Review all the activities in this lesson

### 2. Make copies of

- Practising Positive Self-Talk – 1 per student
- Challenging Your Inner Voice – 1 per student
- Voice Cards – 1 set per group, cut up
- Watch Your Thinking – 1 per student

### 3. You will need

- Whiteboard and markers

## Background

- Studies show that being positive and optimistic can affect how well you live and even how long you live. Optimism can be learned, just the same as repeated exercises allow a muscle to build and become stronger. Whether we use negative or positive self-talk builds nerve cell connections in the brain. “Brain training” means that repeated thoughts or experiences strengthen neural pathways which over time come into play automatically.<sup>26</sup>
- Studies show that people who manage best under stress perceive themselves as capable of influencing certain aspects of their lives and so take action when faced with adversity. In addition, mistakes and change are viewed as opportunities for new learning and growth.<sup>27,28</sup>
- Research suggests that resilient thinking patterns can be learned.<sup>29</sup>

“Teach kids to change the music in their heads... Kids can consciously change the tape, teaching themselves to say, I can do it... This is going to be okay, if only I breathe through it.”<sup>25</sup>

### Opening Activity: Listening to the voice in our head (10 mins.)

- Write “self-talk” on the board and ask students what they think it means. Accept a few answers and examples before giving your own definition, such as: “Self-talk is that “little voice inside your head.” It is what you tell yourself about yourself, or about a situation. We talk to ourselves in our heads all the time. We give ourselves more feedback than anyone else.”
- Ask students if self-talk is related to stress and, if so, how? Accept a few answers and, if necessary, add your own comments. For example, you could say: “Self-talk has a huge influence on your feelings and can make you feel better or worse about any given situation. Self-talk is very powerful. It sends the same chemical messages to your brain as actual experiences do. Your body believes your self-talk. When you say to yourself “I am no good at meeting new people – I always freeze up and look stupid...,” your heart beats faster, you breathe more shallowly, your stomach tightens, and adrenalin clouds your thinking. Negative self-talk actually creates stress in your body and your mind.”
- Divide the class into pairs or small groups and give each student a **Practising Positive Self-Talk** handout. Give students a few minutes to discuss and fill in their charts with examples.

### Game: Identifying and challenging negative voices (20-30 mins.)

- Explain to students that negative thinking is sometimes a habit and that it can be helpful to recognize it in yourself or others around you, as soon as possible so you can adjust it and feel better.
- Give each student a **Challenging Your Negative Voice** handout and briefly walk through the five types of negative self-talk, giving students a chance to identify which type they recognize most in themselves or those around them.
- Then, as a class, prepare to play a game by quickly brainstorming a list of everyday situations or experiences that could inspire negative or positive thoughts (e.g., having to walk to school in the morning, going to a school dance, doing homework, playing sports, skydiving, travelling). Tell students they will be using the items on the board as discussion themes and will be playing a game where they may have to act out a type of negative voice and recognize negative voices in others.
- Break the class into groups of three or four students and give each group a set of **Voice Game Cards**, cut up and placed face down in the middle of their table. Ask students to take a card and be that voice while discussing one of the items on the board. Explain that some cards are blank so students may present a more reasonable or realistic take on the situation using positive comments.
- Tell them that after everyone in a group has had time to participate, they are to take turns guessing whose voices were realistic and whose voices represented negative habits. Then, they must collect, shuffle and redistribute the cards and move on to the next item on the board.
- Give students time to discuss at least three items on the board.
- Ask students to return to their original seats and give each student a **Watch Your Thinking** handout and, if desired, briefly walk through the contents.

## Class Discussion: The health benefits of positive thinking (20 min.)

**Remind students** that many of the stresses in life can't be avoided, and can often be out of our control. If desired, ask students to call out some of the stresses that fit in this category. Then remind students that **what we can control** is the way we think about stress. And this can make a BIG difference in how we handle the daily ups and downs of life.

**Share with students** that studies show that being positive and optimistic can affect how well you live and even how long you live, and that researchers continue to explore the effects of positive thinking and optimism on health.

**Ask students:** "How can being positive affect your health?" Write students' answers on the board and add these if not already listed:

- Longer life.
- Lower rates of depression.
- Fewer colds.
- Better psychological and physical well-being.
- Better coping skills during hard and stressful times.
- Stronger support systems – people like being around positive people.

**Then ask:** "Why do you think people who engage in positive thinking experience these health benefits?" Give students a chance to think about and offer theories. Then tell them about this theory: Having a positive outlook enables you to cope better with stressful situations, which reduces the harmful health effects of stress on your body. It's also thought that positive and optimistic people tend to live healthier lifestyles – they get more physical activity, follow a healthier diet, and don't smoke or drink too much.<sup>30</sup>

**Close the discussion** by explaining that effective self-talk isn't just about saying positive things, but can also mean talking through the things you need to do to get through a stressful time or situation, like a good friend would (e.g., If I listen to some music, that will distract me from the things that are bothering me.)

**Remind students** that we all have worries and fears that can be overwhelming when they are not managed, and that learning how to identify and articulate our fears is essential to helping us reduce our stress reactions and manage stress effectively. **Also, that it is wise to seek help when these worries and/or fears feel too big to handle alone.**

**Remind students** that they will have a chance to learn more about reducing and managing stress in preparing their projects, and in learning about other students' projects.

**Optional: If time allows, give students time to work on their final projects. If some students are stuck and haven't yet chosen a topic, you can refer them to the "Project Starters" in the Appendix.**

### Activity extension:

Have students make a "Worry Box," a place where they can safely name and store their stressors, putting them in the box to be dealt with later, one at a time.

## Practising positive self-talk

Self-talk can be negative or positive, and it can affect all parts of life, such as health, school, sports and relationships. When your self-talk is negative, you may perceive things as more stressful. **For example, when you tell yourself something is 'difficult' or 'unfair,' it becomes more stressful to deal with than if you tell yourself it's a "challenge," or even a "test."** Using self-talk that is optimistic rather than pessimistic has stress-management benefits, productivity benefits and even health benefits that have been measured by research.

Add some examples of negative self-talk to the left column and turn them into positive self-talk in the right column.

Negative Self-Talk	Positive Self-Talk
Example:	
<i>I totally blew it.</i>	<i>I can do better next time.</i>
<i>I can't do it.</i>	<i>I don't need to be perfect,</i>
<i>I'm no good at this.</i>	<i>I just need to try my best.</i>
	<i>I'm just a beginner at this</i>
	<i>and things seem harder</i>
	<i>when you're learning.</i>

## Challenging your negative voice<sup>31</sup>

Think about a negative thought you had this week and try and figure out where it fits in to the following five categories:

- **Absolute thinking:** Do you use words like “always” and “never” to describe problem situations? WARNING: Always and Never are dangerous words (e.g., “My teacher never listens to me” or “I always screw up”). These thoughts are not realistic, and leave no room for other ways of thinking, and are sure to make you feel bad and hopeless!
- **Exaggerated thinking:** Do you sometimes blow things out of proportion? Are you making things seem worse than they really are? (e.g., “This is the worst day of my life! I am going to fail my exam!”). Exaggerated thinking can make it feel like the whole world is against you.
- **Mind reading:** Do you sometimes think you know what others are thinking? You may think that they are having critical thoughts about you when you don’t really know that is true? (e.g., “My teacher thinks I am an idiot because I failed my math test”). Don’t assume you know what others are talking or thinking about as this will only increase your stress.
- **Fortune telling:** Do you sometimes predict the very worst outcome without any evidence that bad things will happen? (e.g., “I failed my math test. My parents are going to freak out!”). Negative assumptions can lead to even more negative thoughts and can in fact make your worst fears come true.
- **Negative labelling:** Do you sometimes put others or yourself down in the way you think about a situation? (e.g., “My teacher is such an idiot for giving us that test” or “I am such an idiot for failing that test”). Being negative about a situation just makes the whole thing harder to deal with.

### Voice cards

Give each group a set of cards, cut up and placed faced down on the table.

<b>Absolute thinker</b>	
<b>Exaggerated thinker</b>	
<b>Mind reader</b>	
<b>Fortune teller</b>	
<b>Negative labeller</b>	

## Tip Sheet: Watch your thinking<sup>32</sup>

We all have negative thoughts – sometimes about ourselves and other times about someone else. These can be confusing and can make our problems and stress seem much bigger. Knowing what kind of negative thoughts you're having can make it easier to tackle them with more positive and healthy thoughts.

You may not be aware of the things you say to yourself. The first step is to notice the things that you say to yourself. Would you say that to your best friend?

To change your self-talk from negative to positive: Think of a situation that happened recently when you can remember what your inner voice was telling you – e.g., when you got your math test back with a mark you weren't expecting, when some kids you know walked by without saying hello, when you found out that you didn't make the team...

"Don't let what you cannot do interfere with what you can do."

**John Wooden**  
(Basketball player and coach)

### Tips: Shift your thinking

- Carefully choose the words you use.
- Accept occasional setbacks and mistakes as normal and natural. Tell yourself that you can learn from them and do better next time.
- Focus on the solution rather than the problem. Rather than complaining about what you can't do, tell yourself "What I CAN do is..."
- Watch out for words like "always" and "never." Very often we make things sound worse than they are.
- Replace criticism with praise. Learn to be your number one fan.
- Identify and practise activities and techniques that take your mind off stressors that you have no control over and cannot change.
- Accept and acknowledge all of your feelings, even the "bad" ones: anger, guilt, inadequacy, disappointment. Know that these feelings are normal too.

Remember that no feeling is "bad" in itself. All feelings make sense. However, feelings are connected to thoughts, and we can work to alter our thoughts about emotional situations. We can also work to change the ways we **express** our emotions.

**Challenge: How can you use these positive thinking tips to become a better communicator?**

# Lesson 5:

## Making Positive Choices

### Overview

In previous lessons, students have explored the stress reaction, learned about and practised some stress reduction and coping strategies, and learned about the role of positive thinking in managing stress.

In this lesson, students will put those skills to work in examining the problem-solving process – looking at the big picture and making sound decisions.

### Preparation

#### 1. Familiarize yourself with each of the learning activities for this lesson

#### 2. Make copies of

- Evaluation sheet (from Lesson 1) – 1 per student
- Problem-Solver – 1 per student

#### 3. You will need

- Whiteboard or flipchart and appropriate markers
- Sticky notes – 1 per student
- A “worry box” (a box or bag to collect handouts)

### Background

“Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.”

**Viktor Frankl,**  
**Man’s Search for Meaning**

- Pictures of the brain in action show that adolescents’ brains function differently than adults when decision-making and problem-solving. Their actions are guided more by the amygdala and less by the prefrontal cortex.<sup>33</sup>
- Stressful situations often trigger certain behavioural reactions. This lesson focuses on helping students become more aware of their automatic reactions to stress and how this links to their behaviour.
- By taking the time to work through a problem-solving process, we engage the prefrontal cortex.
- Optimistic thinking is a tool we can use. Pessimistic thinking leads to feeling discouraged and hopeless and is influenced by the amygdala, which shuts down higher order thinking. The prefrontal cortex looks at problems in a more clear, systematic and optimistic way.



### Opening Discussion: Preparing for the final project (5-10 min.)

- Tell students that this will be the last lesson before the final project preparation day (Lesson 6) and presentation itself (Lesson 7).
- Ask students how they are feeling about their projects so far and the event itself. Draw a horizontal line on the board. On one end write the number 1 and “Not feeling so good about it” and on the other write the number 10 and “Can’t wait to get to the presentation!” Give each student a sticky note and ask them to write down a number from 1 to 10. Then collect the notes and stick them along the line on the board.
- Discuss the results, reminding students who may be stressed about their projects that they can practise some of the techniques they’ve learned so far to help them chill out and get back on track (e.g., mindful breathing, positive self-talk).
- This might be a good opportunity to repeat the mindful breathing activity from Lesson 3 with your class.
- Tell students that during this lesson they will be learning how to enhance their problem-solving skills, which may also help them move forward on their projects in a positive way.

### Individual-Group-Class Activity: Problem-solving (30-40 min.)

- Write “problem-solving” on the board and remind students that one way to deal with a stressful situation is to think of it as a problem that can be solved. Tell them that problem-solving is an important skill for mental health because problems that don’t go away can take a toll on our well-being. Left unsolved, a small problem can become a big problem. For example, you don’t complete your homework one day, which causes you to skip class. Missing that class means you missed the review for an upcoming test, which increases your stress about the test, ultimately hindering your performance.
- Tell students that part of solving a problem involves breaking it down into steps. Ask students what they think those steps might entail and write their responses on the board. Or, write these steps on the board:
  - Choose to have an optimistic attitude about the problem.
  - Identify which stressors, if any, cannot be removed.
  - Identify what you can change and what you cannot.
  - Identify people who can help you think things through without making the problem worse.
  - Identify a goal and some simple steps that can help you get there.
- As a class, walk through an example of the problem-solving process. First, choose a problem (if a student or student group is struggling with their project, you might want to use that problem as your example). Or give this example: “I’m failing math and my parents aren’t great at math either so they can’t help me get on track.” Then, work the steps you’ve suggested on the board. Tell students they will now have a chance to solve a problem on their own.
- Give each student a **Problem-Solver** handout. Ask them to think about a problem or worry they have faced recently (or make one up) and write a brief but detailed description of it in the problem box. Then ask them to place their problem in the “worry box” (or worry bag, worry pile) on your desk.

“The greatest weapon against stress is our ability to choose one thought over another.”

**William James,**  
**Psychologist, Philosopher**

- Shuffle the “problems” and redistribute the papers. Ask students to spend a few minutes thinking about ways to address the problem, starting with an optimistic sentence or two about the problem.
- After students have had time to think and write, break the class into pairs or small groups and have them discuss their cases, adding information or tips from the group to their sheets.
- Collect all the problems and possible solutions and then choose a few to discuss with the whole class, adding insight where necessary.

### Closing: Final project housekeeping (10-20 min.)

- Take time to check in with individual students and groups about their projects. You may want to use the board to summarize each group’s topic and progress, giving you and the class a bird’s eye view of what they can expect to see and do on presentation day.
- Remind students to go beyond posters and pictures. They may choose to feature a stress experiment, put on a performance, showcase a stress-busting product they invented, demonstrate a relaxation technique, or offer visitors something else unique to see or do at their project presentation/display.
- If desired, and time allows, let students work on their projects. Or, if inviting other classes to the presentation, you could have students create a plan for making signs or flyers to advertise the presentation around the school.
- Remind students that they will have the entire next lesson to work on pulling their displays and presentations together.

#### Optional activity: 1 min.

<http://www.youtube.com/watch?v=2yEhMFsv8AA>

Hooked by stress: Show the class the short video that was developed to accompany the Stress Lessons program for Grades 4-6.



## Problem-Solver

By taking the time to work through a problem-solving process, we engage our prefrontal cortex (instead of getting stuck in fight-flight-freeze mode!).

**Problem:**

I wonder what I could do  
to solve my problem.

Hmm...  
maybe if I think things through  
I can come up with a goal and a step-by-step plan

**Optimistic thought:**

**Goal:**

Problem-solving steps to reach my goal:

1

2

3

4

# Lesson 6: Final Project Preparation

## Overview

In this lesson students will work on finishing their final project presentations. This will be their last in-class opportunity to ask for help and work together to finalize their presentations.

## Preparation

1. **Familiarize** yourself with each of the learning activities for this lesson.
2. Review the **Evaluation** sheet and prepare to observe students' efforts in the upcoming Chill Fair display activity
3. **You will need**
  - Poster/display-making supplies (glue, paper, tape, coloured markers, etc.)



### **Opening: Review (5 min.)**

- Explain to students that they will be presenting their Chill Fair displays next class so that this is their last in-class prep time.
- Remind students that the Chill Fair will give students a chance to creatively share information and ideas about positive and negative stress, and healthy ways to cope with and manage stress. Each Chill Fair “booth” will feature a display, but can go beyond posters and pictures. Encourage students to think creatively about their topic. They may choose to feature a stress experiment, put on a performance, showcase a stress-busting product they invented, demonstrate a relaxation technique, or offer visitors something else unique to see or do.

### **Team Activity: Prepare Projects/presentations (50 min.)**

- Ask students to reconnect with their teammates and continue their work on their Chill Fair presentations.
- Have students work together to complete their posters and presentations.
- As students work on their posters and presentations, circulate and help any groups that require assistance.

#### **Note:**

You may want to expand the scope of Chill Fair and invite other students from other classes or grades to attend the event. The students may even want to work with other schools in their district and plan a larger event aimed at a larger discussion of stress management in your community.

### **Closing: Discuss homework (5 min.)**

- Remind students that they will be presenting their display during the next class. If any student teams are far from finishing their displays, help them strategize a way to complete them before the next class. If the class has decided to invite other members of the school community, remind them to make an announcement and/or put up posters.
- Remind students that each member of the team should have an active role in presenting their Chill Fair display – and that participation is an important aspect of their final mark.





# Lesson 7: Final Project Presentations

## Overview

In this lesson students will be invited to present their own Chill Fair displays/presentations and will have a chance to view and experience the displays created by their peers.

## Preparation

1. **Familiarize** yourself with each of the activities for this lesson
2. If the class has opted to invite others in the school community, make sure students have put up posters/made announcements to remind them where and when the Chill Fair will take place
3. Review the **Evaluation** sheet and prepare to observe students' efforts in the upcoming Chill Fair display activity
4. **You will need**
  - Pins/tape for hanging posters
  - Poster/display-making supplies (glue, paper, tape, coloured markers, etc.)
  - Multiple copies of the Chill Factor Evaluation questionnaire (each student will need one to rate the other groups' work, so # of students x # of groups)



### Opening: Prepare for display (10 min.)

- Give students a few minutes to set up their Chill Fair displays.
- Students may need to rearrange desks/room set-up to accommodate their displays and Chill Fair activities.

### Class Activity: Project displays and presentations (40 min.)

- Invite each group to briefly present their display. After each group has had an opportunity to present their work, encourage students to circulate among the displays and interact with the presenters.
- Ask students to take turns staying at their display to give each other an opportunity to check out other students' work.

### Individual Activity (5 min.)

- Distribute copies of Chill Factor Evaluation handouts.
- Ask students to fill in the student assessment sheets for each group and return them to you once completed.

### Closing (5min.)

- Congratulate students on all their hard work.
- Ask students which stress reduction strategies they would like to incorporate into the classroom practice over the upcoming weeks and months.
- Tell students when they can expect to receive their assessments based on teamwork during the research and presentation stages as well as feedback from their peers.



## APPENDIX

- 1) Project Starters: Examples to give students who are stuck
- 2) Chill Factor Evaluation Form
- 3) Additional Resources for Teachers
- 4) Glossary





## Project Starter: Stress and Gratitude

### Research tip:

- Research shows that practising gratitude helps young people feel more connected to their friends, family, school and community.

### Research questions:

- What is gratitude?
- How can people express gratitude?
- How can expressing gratitude help you manage stress?

#### **grat-i-tude**

/grat-i-tood, grat-i-tyood/

#### **Noun**

The quality of being thankful; readiness to show appreciation for and to return kindness.

#### **Synonyms**

gratefulness – thankfulness – thanks – appreciation

## Project starter: Stress and performance

Stress can play a huge role in enhancing or sabotaging our performance, depending on how we think about and handle it.

### Research tip:

Stress doesn't always have to be a negative thing. When we are experiencing stress, our bodies actually contain a huge amount of energy available to us. When you learn to harness this energy positively, stress can help you to rise to the challenges you're facing.

"It's lack of faith that makes people afraid of meeting challenges, and I believed in myself."

**Muhammed Ali**

### Research questions:

- What kinds of techniques and approaches do elite athletes use to harness stress to help them achieve their best performances?
- How can we all learn how to put these techniques into practice in our everyday lives?

## Project Starter:

### How personality and temperament affect stress

All of us have our own way of being, and part of getting to know what is stressful is learning what feels right and natural, what is exciting and motivating, and also recognizing when some things are stressful or more difficult to handle.

**Research tip:** A big part of what makes you who you are is your temperament and personality. Temperament is the biological basis for differences in behaviour. Personality traits are the dimensions in which individuals psychologically differ from one another. Understanding your own temperament and personality, and that of others, will help you understand how individuals respond to stress.

### Research questions:

- How do personality traits and temperament affect how a person perceives and copes with stress?  
See the following list for some examples to consider.

Assertive/A Leader	Focused	Respectful	Considerate
Diligent	Resourceful	Courageous	Tolerant
Motivated	Co-operative	Honest	Dependable/Reliable
Caring/Compassionate	A Team Player	Responsible	Loyal
Disciplined	Generous	Courteous/Polite	Trustworthy
Observant	Confident	Humble	
Communicative	Patient	Sincere	
Enthusiastic	Fair	Creative	
Optimistic		Kind	
Community Focused			

### Resources:

<http://www.educationplanner.org/students/self-assessments/character.shtml>

<http://www.keirsey.com/sorter/instruments2.aspx>

## Project Starter: Express yourself to bust stress

Self-expression is the expression of one's own personality, feelings or ideas. As we grow up, we begin to define our own set of values, interests and attitudes about life. We also learn what skills, talents and abilities we possess.

**Research tip:** Evidence shows that expressing yourself creatively helps people manage stress, even severe stress.

### Research questions:

- Why is the creative process so important in helping bust stress?
- How can you tap into what excites you? What makes you feel good about yourself, what energizes you, what relaxes you and what stresses you?

### Resources:

<http://www.search-institute.org/system/files/200-Sparks-List.pdf>

"There are thousands of causes for stress, and one antidote to stress is self-expression. That's what happens to me every day. My thoughts get off my chest, down my sleeves and onto my pad."

**Garson Kanin,**  
**Writer & Film Director**

## Chill Factor Evaluation Form



Congratulations! You/your team have created an outstanding final project, clearly demonstrating sound research, creative insight and thoughtful expression. Visitors could not help but be drawn to your display area, wowed by all they saw/heard/experienced and learned about stress, stress management, stress prevention and/or how to chill.



Great job! You/your team have created an outstanding final project, demonstrating solid research skills and creativity. Visitors were delighted by your display area and enjoyed what they saw/heard/experienced and learned about stress, stress management, stress prevention and/or how to chill.



Way to go! You/your team certainly put effort into the final project. But your research could have been stronger or better organized. Your creativity pleased the people who visited your display, and everyone learned something interesting about stress, stress management, stress prevention and/or how to chill.



You/your team put some effort into your final project. But your research was weak or poorly presented. If you had been a bit more creative in your approach, you could have reached more people with your knowledge about stress, stress management, stress prevention and/or how to chill.



Everything okay? Or were you/your team too chilled out to work much on your project?

## Additional Resources for Teachers

### The Teenage Brain

#### **CBC: The Nature of Things. Surviving the Teenage Brain. 60 minutes**

This intriguing documentary features the knowledge and research of international scientists and experts like National Institute of Mental Health (NIMH) neurologist Dr. Jay Giedd, who is one of the world's foremost experts on adolescent brain development; Cambridge evolutionary biologist Dr. David Bainbridge, author of **Teenagers: A Natural History**; adolescent mental health expert Dr. Stan Kutcher; biological anthropologist Dr. Helen Fisher; and innovation and technology expert Don Tapscott (author of **Growing Up Digital: How the Net Generation is Changing the World**).

#### **PBS: Inside the Teenage Brain. 60 minutes**

In "Inside the Teenage Brain," Frontline chronicles how scientists are exploring the recesses of the brain and finding some new explanations for why adolescents behave the way they do.

### Adolescent Mental Health

#### **Children's Mental Health Ontario – Resources for Teachers**

[http://www.kidsmentalhealth.ca/professionals/mh\\_for\\_teachers\\_classrooms.php](http://www.kidsmentalhealth.ca/professionals/mh_for_teachers_classrooms.php)

A great list of resources for teachers regarding child and adolescent mental health.

#### **Making a Difference: An Educator's Guide to Child and Youth Mental Health Problems**

<http://cymhin.offordcentre.com/downloads/Making%20a%20Difference%203-2.pdf>

This is a quick reference guide to mental health problems in children and adolescents for teachers. It outlines how they can be recognized, their effects, and gives suggestions for effectively dealing with them. Especially excellent is the in-depth surveys of the major groups of mental health problems.

#### **ABCs of Mental Health**

<http://www.hincksdellcrest.org/ABC/Teacher-Resource/Welcome>

An extensive guide to mental health across all age-groups in childhood and adolescence. It is helpfully organized to allow searching by age, behaviour and topic, etc.: explains the different facets and related factors of the behaviours (eg., physical health, cultural and religious factors, etc.); and offers advice on the seriousness of the problem (see traffic light symbols).

### Teen Mental Health

<http://www.teenmentalhealth.org>

This website is full of materials, information, videos and additional resources specific to teenage mental health. Its focus is on effective translation and transfer of scientific knowledge to help enhance understanding about adolescent mental health and mental disorders.

## Books

### **The Social Neuroscience of Education: Optimizing Attachment and Learning in the Classroom** by Louis Cozolino (2013)

This book explains how the brain, as a social organism, learns best throughout the lifespan, from our early schooling through late life. Positioning the brain as distinctly social, Louis Cozolino helps teachers make connections to neurobiological principles, with the goal of creating classrooms that nurture healthy attachment patterns and resilient psyches.

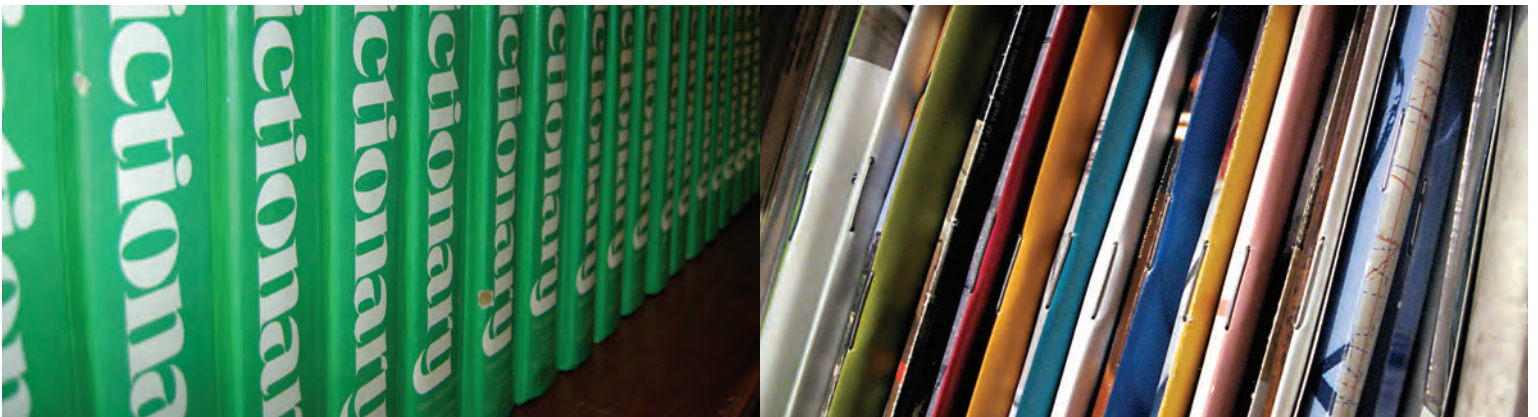
### **Calm, Alert, and Learning: Classroom Strategies for Self-Regulation** by Stuart Shanker (2013)

Recent research tells us that one of the keys to student success is self-regulation – the ability to monitor and modify emotions, to focus or shift attention, to control impulses, to tolerate frustration or delay gratification.

But can a child's ability to self-regulate be improved?

Canada's leading expert on self-regulation, Dr. Stuart Shanker, knows it can and that, as educators, we have an important role to play in helping students develop this crucial ability.

Distinguished Research Professor at York University and Past President of the Council for Early Child Development, Dr. Shanker leads us through an exploration of the five major domains – what they are, how they work, what they look like in the classroom, and what we can do to help students strengthen in that domain.



# Glossary

## Mental Health Literacy: Using the right terms (derived from <http://www.teenmentalhealth.org>)

**Mental Health:** A state of emotional, behavioural and social well-being; not necessarily the absence of a mental disorder. A person may have a treated mental disorder and also have mental health.

**Mental Illness:** Refers to a range of brain disorders that can affect mood, behaviour and thought process. Mental illness is used interchangeably with mental disorder.

**Distress:** Mental or physical suffering. Distress is a part of normal life. Mental distress is not a mental disorder.

**Mental Health Problem/Issue:** Too broad and vague a term. Most experts refrain from using it as it is too generalized and meaningless.

**Mindfulness:** The state of being actively aware and attentive to the present or “living in the moment” in a non-judgmental manner.

**Neuroscience:** The scientific study of the nervous system.

**Self-Regulation:** A person’s ability to adapt emotionally, physically, cognitively and socially to the demands of a situation or a task at hand.

**Resiliency:** An individual’s ability to cope with adversity. Resilient individuals are able to bounce back and effectively cope with life’s inevitable setbacks.

**Stress:** The body’s response to the threats and challenges in the environment.

**Stressors:** Threats or challenges in the environment that can cause the stress reaction.

**Six critical elements** to optimal self-regulation, which span biological, emotional, cognitive, social and pro-social domains, are:

- When feeling calmly focused and alert, the ability to know one is calm and alert.
- When one is stressed, the ability to recognize what is causing that stress.
- The ability to recognize stressors both within and outside the classroom.
- The desire to deal with those stressors.
- The ability to develop strategies to deal with those stressors.
- The ability to recover efficiently and effectively from stressors.

**Calm, Alert and Learning.** Shanker, 2013.



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# Notes

# Notes

