

Making Neuroscience Fun

A Brain Awareness Program for All Ages



Brain Health: It's SPECTacular

Importance of SPECTacular Brain Health in Adolescence (🧠 A Brain Health Story) (5th Grade – 10-11 yrs.) Think, Pair, Share: No Pain, No Gain



STORY CONNECTION – SLIDES 13-14 (Approx time: 30-45 mins)

This is a time when your body is going through **growth spurts** – so you may be feeling achy – this is why they call them “growing pains.” If you combine your “growing pains” with the stress from all the changes in your social, emotional, and cognitive behaviors, then this is a time when your body really needs to be moving. Because you are constantly hungry, tired, achy, and stressed, this is a time when you really need to focus on your Physical Health. Now is a time when your body really needs food that gives you both energy and nutrients. Making sleep a priority and focusing on regular sleep habits will help you with all the other hormonal changes in your behaviors. Moving your body every day by doing something – whether it is taking walks, playing sports, or exercising – will help to relieve your growing pains and your stress. Taking care of your Physical Health will help your brain throughout adolescence and will help you to develop good habits to carry throughout your life.

Materials needed:

- Paper
- Pencils
- Chart paper or whiteboard
- Markers
- Tape
- What Are Growth Spurts during Puberty? Video Link:
 - <https://www.howcast.com/videos/499555-what-are-growth-spurts-puberty> (1:14)
- Height Calculator website: <https://www.calculator.net/height-calculator.html>
- When I Grow Up worksheet (included below- optional)
- Equipment to show online video and website

Preparation needed:

- Preview the video and have it open and ready in a tab.
- Write “growth spurt” on the chart paper or whiteboard.
- Preview the height calculator website and have it open and ready in a tab.
- Determine if student(s) will use When I Grow Up worksheet
 - If so, print 1 per student.
 - If not, have digital copy ready to display for student(s) and blank paper.
- Determine student grouping for end of activity.

Instructions:

1. This activity will focus on the physical aspect of Brain Health. Student(s) will watch a short video on growth spurts, calculate their future height, and reflect on things they want to do when they are older and bigger.
2. Ensure all student(s) have paper and a pencil.
3. Direct student(s)' attention to the words "growth spurt" on the chart or board.
4. Ask them to write down three (*and only three*) words that come to their minds when they hear the words. Give them one minute to do this.

Words might include:

- Taller
 - Bigger
 - Painful
 - Maturity
 - Hungry
 - Tired
 - Growing up
 - Hormones
 - Awkward
 - Getting older
 - Growing pains
5. Next, have the student(s) get with a partner and compare their lists. They can add words to their own lists as they share with their partners.
 6. After a few minutes, have the group come back together.
 7. Ask student(s) to share their lists. Discuss what they talked about with their partners. Write down what they say on the "growth spurt" chart paper or whiteboard.
 8. Show the short video on growth spurts.
 9. Ask student(s) if there are any additional words that can be added to the lists.

Examples:

- Puberty
 - Changes
 - Different rates
 - Normal
 - Gradual
 - Sleep
 - Nutrition
 - Exercise
10. Reference and review the parts of the video where the doctor talks about:
 - Coming back to school and not recognizing someone because they are so much taller.
 - Girls usually go through growth spurts before boys
 - Sometimes the growth is gradual and not as obvious.
 - Some people grow, stop growing, and grow again.
 11. Reinforce that...
 - whatever they are going through is normal!
 - they still have a lot of growing to do and eating right, getting enough sleep, and being active will help them as they go through these growth spurts and changes.
 12. Explain to student(s) that the next part of the activity will give the student(s) a glimpse into their future and be entertaining for them. The group will use an online height calculator to determine how tall they will eventually be as an adult.

Suggestion: Before asking for student volunteers, the facilitator might want to do an example first. Use the data about a younger sibling, niece, nephew, friend, etc. Disclaimer: remind the student(s) that while these predictions are 90% accurate, they are an estimation and only time can really tell how tall they will grow to be.
 13. Using the height calculator website:
 - Solicit volunteers to calculate their future height

- Only use student(s) who feel comfortable sharing this information. It might be more sensitive for some student(s) than others.
 - plug student information into the calculator and show them what their predicted height will be.
14. The final part of this activity will allow student(s) to think about things they want to do someday.
 - While growth spurts can be painful and awkward, they are normal and lead to them getting older, bigger, and more mature.
 - This means they will be able to do things they have not been able to do before now.
 15. Pass out the When I Grow Up worksheet.
 16. Explain to student(s) that they will get about 5 minutes to *independently* list as many things as they can think of for each category. Tell them the age and size can be estimated if necessary.
 17. Begin timer and allow student(s) to work.
 18. When time is up, have them get into their predetermined small groups and share their lists with each other for about 5 minutes.
 - Student(s) can add to their own lists if they hear something they like and want to be able to do someday.
 19. After about 5 minutes, they come back together as a whole group.
 20. Have student(s) share what they put on their lists and discuss why this is something they really want to be able to do.
 - Again, student(s) can add to their own lists if they hear something they like and want to be able to do someday.
 21. Lastly, have each student look at their own paper and...
 - circle the one thing that they are most excited about doing when they are older.
 - underline one thing that they are most excited about doing when they are bigger.
 - Ask for volunteers to share what they circled and underlined and explain why.
 22. In closing, review that during this time they will experience growth spurts that can cause growing pains and other changes in their bodies. While everyone will experience something different, all the changes are normal. They need to make sure they are eating right, getting enough sleep, and staying active during this time. This will help alleviate the pain and stress. These changes are part of growing up and how they handle them now can lead to good habits that last a lifetime and will allow them to do more of the things they want to do when they are older and bigger. Focusing on their physical health will make their body and brain healthy now and in the future.

When I Grow Up

Name: _____

Things I Will Be Able to Do When I Am Older	How Old Will You Have to Be?	Things I Will Be Able to Do When I Am Bigger	How Big Will You Have to Be?