

# Making Neuroscience Fun

A Brain Awareness Program for All Ages



Brain Health: It's SPECTacular

## What to do TODAY Grade 5 (🧠 Cognitive Health Story)

Making decisions is something that all of us have to do all the time. Making good decisions actually helps you to live a better life and helps your brain stay healthy.

- 🧠 Making good decisions is not easy, especially when the part of your brain that helps you make decisions is still growing.
  - 🧠 While your brain is still growing, you think about the world you live in differently and you may take more risks.
  - 🧠 Your brain does a lot of things for you and now is the time when you need to help your brain, so it can help you. Understanding how your brain works and how you are able to make decisions will help you to keep your brain healthy.
- 🧠 For this presentation, you need to have the “Making Decisions” Story video (~18 minutes). You will be doing 2 activities. A modification of the G5#3 Activity – “Risky Business” and a modification of the G5#4 – “Be a Star!”. You will need small pieces of paper to pass out to each student and a copy of the “Be a Star” information sheet for each student.
- 🧠 Start the story video and stop the video after the title slide.



Cognitive health – the “C” in SPECTacular – involves **thinking** and **making decisions**.

Your brain is thinking and making decisions ALL the time. That is why it is important to help your brain make **GOOD** decisions.

Making good decisions will keep both your brain and your body healthy.

- 🧠 Continue the playing the video and stop the slide after the following slide.



Ok...What do you think a good decision would be? (Get some responses – the slide shows **staying safe** and **helping others**. See if the students have any examples of either of these.)

Continue the playing the video stop after the questions in the slide.



Ask the students to...raise their hand if they **would** do some homework...and then ask the students to raise their hand if they would play a video game.

Then ask...OK...that is what you **would** do – but, is that what you **should** do meaning is that a **good decision**?

Let's see what a neuroscientist would say.

Continue the playing the video and stop at the end of the explanation to discuss.

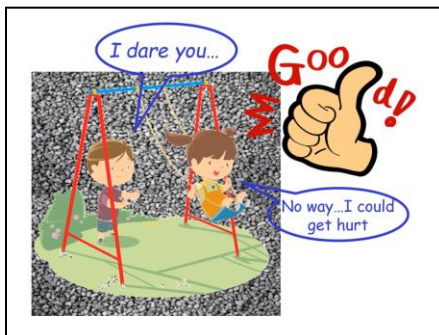


So, there are LOTS of reasons why doing your homework and getting prepared for the test is a **good decision**.

But, the most important reason is because when you feel **prepared & confident**, that is good for your brain health.

When you are **anxious & stressed** that is NOT good for your brain health.

Continue the playing the video and stop at the end of the slide.

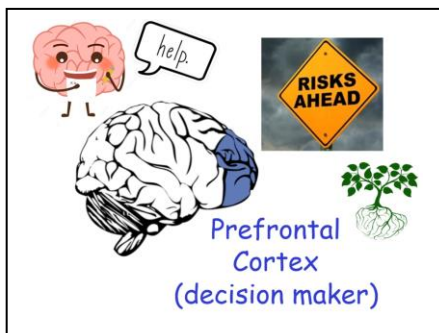


Ok...be HONEST...Raise your hand if you would have taken the dare and jumped off the swing.

Tell the students, that if you were in 5<sup>th</sup> grade again you probably would have taken the dare and jumped. (scratch your head and looked puzzled).

Then say...hmmmm...I know now that taking the dare and jumping is not the **good decision**...but, why would my 5<sup>th</sup> grade self still have done it? Let's see.

Continue the playing the video and stop at the end of the slide.



Ok...so that makes sense...you have a part of your brain called the **prefrontal cortex**. This is the front part of the brain that is right behind your forehead and goes back to right before your ears. (Have the students feel their heads to demonstrate where the prefrontal cortex lies.)

Say...5<sup>th</sup> grade brains are still developing...and yikes...so are college brains. So, why do you think my 5<sup>th</sup> grade brain would have let me jump off the swing – but, my college brain stops me? (Discuss – has to do with prefrontal cortex getting information to help my college brain.)

🌈 Continue the playing the video and stop at the end of the slide.



So...a **risky behavior** is something you do that could **potentially** be **dangerous** or **bad** for you in some way.

Ok...we are going to do an activity to help us identify risky behaviors.

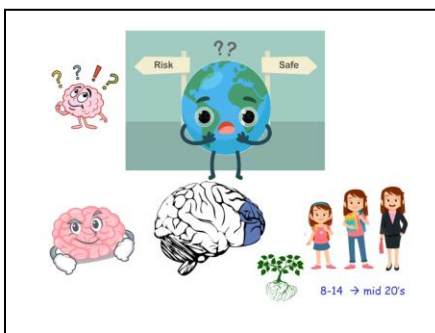
🌈 Do the following activity with the students. Watch your time as there is still **10 minutes** in the video and another activity.

1. Hand out a small piece of paper to each student.
2. Have the student write down a behavior that they think is risky and what the **potential** bad or dangerous outcome that could happen is. Be sure to tell them that these will be anonymous.
3. When the students are done, have them fold the paper in half and then collect them. Find something in the room (a hat, or a bag, or a box - something you can use to mix them up the papers. (If you cannot find something – just put them on a desk and mix them up.)
4. Then for each of the examples...
  - Read the potentially risky behavior
  - Have the students raise their hands if they think it is risky (assess how much of the class thinks the behavior is risky).
  - Ask for reasons why they think the behavior is risky or not. Discuss the potential negatives for doing the behavior.
5. Continue through the examples. If you get the same behavior multiple times – comment that the behavior must be risky.
6. You may want to keep a list of the behaviors the students identify as risky so you can use them for the STAR activity.

When you are finished (or your time is up), be sure to tell the students that now they should be able to figure out if a behavior is risky or not.

Now, let's see WHY anyone would want to do a behavior that is risky.

🌈 Continue the playing the video and stop after the following slide.



So, now we know that taking chances and doing risky behaviors dates back to the time of the cavemen days.

Our brains are designed to help us do behaviors that help us to survive.

Say this incredulously...And until our prefrontal cortex is fully developed, we may take risks and act without thinking. Or, we might act like we are from the cavemen days!!!

Continue the playing the video and stop after the following.



Ok...be honest - raise your hand if a friend has ever dared you to do something that you knew was – **risky** – or that you knew was potentially dangerous. (Note how many students raise their hands.)

If a lot...Say...Yup, lots of us who have friends who have dared us to do something risky.

If not a lot...Say...Wow, you must have good friends who are trying to keep you safe.

Then say...if you are one of the ones that have friends that try to keep you safe – then you are lucky. BUT...while it is nice to have those kinds of friends, WHO is the one responsible for helping your brain make good decisions? (Get response. The answer is we all are responsible for helping our brains make good decisions – **especially** when our prefrontal cortex is still developing.)

Continue the playing the video and stop at this point in the following slide – after “trial and error learning”.



Ok...so we have LOTS of ways to help our brains to make good decisions even though we have lots of decisions to make every day.

Some of your decisions are quick, like do you want milk or water to drink with lunch.

Other decisions are more complicated and may involve **risks**.

Let's do the “Be a Star” Activity to see HOW we can help our brains make good decisions.

At this point, there is about **5 minutes** left in the video – so watch your time.

1. Tell the students that in this activity, they will be given a tool to help them “stop and think” so they can avoid risky behaviors and help their developing brain make good decisions. The tool is called “Be a Star”.
2. Pass out the STAR worksheet to each student and go over each section with them.

**S is for STOP**-your initial reaction might not always produce the best results. Take a minute to stop and take a breath so you do not do something you will regret or cause a negative consequence.

**T is for THINK**-take a second (or longer) to think and ask yourself some or all the following questions:

How am I feeling right now?

Should I say something or just keep quiet for now?

Is this something I should just let go?

Are there going to be positive or negative consequences to my actions?

Will my decision affect only me or are others involved?

Is there a way to make this situation good for everyone involved?


Have I had to react to something like this before? How did that work out?

**A is for ACT**-now that you have taken the time to think about the situation, now is the time to act. Try to produce a resolution that is best for everyone involved and one that does not harm you or anyone else.

**R is for REFLECT**-reflect on how your choices, decisions and actions worked in the situation. Is there anything you would do the same or differently next time? How do you feel about the resolution? Are you feeling differently now than when you were at the beginning of the process?

3. Have the students turn over the paper and write down one or more choices they have had to make or anticipate making in the future that they would consider complicated, serious, or important.
4. You can ask a student to share one of their choices, or if no one wants to share you can use one of the following ideas:
  - Choosing classes for middle school
  - Deciding to try cigarettes or alcohol at a friend's house
  - Making fun of someone because your friends are doing it
  - Cheating on a test
  - Lying to your parents/teacher about something
  - Going along with the group even though you feel uncomfortable
  - Keeping a secret for a friend who was in trouble
5. Demonstrate with the whole class how to use the STAR process to decide one what to do.
6. Explain to the students that the STAR method...
  - is a tool to help them make good decisions as their brains are still developing.
  - as they use the STAR method and as they mature, it is something that starts to become something they just do without having to think about it.
  - they will not need it except for a reminder or refresher now and then.
7. If you have time, you can do another example with the students.

When you are finished, remind the students they must make many choices each day. They need to remember that their brain's job is to help keep them alive and even though their brain is still growing, if they stop and think of all the possible outcomes of doing something dangerous then their brain will produce other options. By stopping, thinking, acting, and reflecting (STAR) they will help keep their brain happy, healthy, and SPECTacular!

 If time remains (~ 5 minutes), continue the playing the video until the end or just reiterate the points of the video.

Finish by telling the students that you had fun talking with them today about their brain and making decisions and ask them if they had fun learning.

REMIND the students...

- The decision-making part of your brain – the prefrontal cortex - still has lots of growing to do.
- While the prefrontal cortex is still growing, you need to be extra careful about making good choices when you are trying to make a decision.
- While risky behaviors may seem like a good choice, you need to always think about keeping yourself and others safe.
- By stopping, thinking, acting, and reflecting (using the STAR method) they will help keep their brain happy, healthy, and SPECTacular!
- Helping your brain to stay healthy is SPECTacular and your brain will thank you for it.

Be sure to thank them for listening and the Brain Health Team of JHU students will see them soon.

# Be a STAR



For a Problem that needs to be solved or a decision that needs to be made “be a **STAR**”.



**S**top...  
and take a breath.

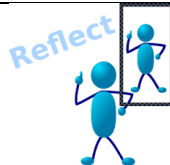


**T**hink...  
about the following:

- ★ How am I feeling right now?
- ★ Should I say something or just keep quiet for now?
- ★ Is this something I should just let go?
- ★ Are there going to be positive or negative consequences to my actions?
- ★ Will my decision affect only me or are others involved?
- ★ Is there a way to make this situation good for everyone involved?
- ★ Have I had to react to something like this before? How did that work out?



**A**ct...  
now that you have thought about the situation. What will you do?



**R**eflect...  
on how your choices, decisions and actions worked in the situation.

- ★ Is there anything you would do the same or differently next time?
- ★ How do you feel about the resolution?
- ★ Are you feeling differently now than when you were at the beginning of the process?