

Making Neuroscience Fun

A Brain Awareness Program for All Ages



Brain Health: It's SPECTacular

Story General Information

It's a SPECTacular Jungle Out There (🌍 A Brain Health Story) (4th Grade – 9-10 yrs.)

The world of a 4th grader is complex and has the potential to be frustrating and stressful. This is a time when children need to focus on taking care of their SPEC health, so that their brains can help them navigate through the challenges they are facing.

- Understanding that we have a reciprocal relationship between our brain and our behaviors will help us to face these challenges to our SPEC health. We need to take care of our brain, so that our brain can take care of us.
- As a 4th grader you are facing lots of challenges to your SPEC health, it can be a virtual jungle out there.
- Just like the animals in the jungle, we need to learn how to live in a world that is always changing. Focusing on SPEC health will allow us to survive and thrive in our world.

The facilitator begins by introducing themselves, neuroscience, and the program, Brain Health: It's SPECTacular. Brain Health is about maintaining a happy, healthy brain to feel good. The beginning letters of SPECTacular (SPEC) each represent a component of Brain Health the children have learned about in previous stories. The facilitator reviews each component (Social, Physical, Emotional, and Cognitive) and its importance to staying healthy and happy. This summative story reviews the major concepts covered in the previous fourth grade stories using the analogy of animals in a jungle.

As fourth graders, these children are facing new kinds of challenges in all areas of SPEC health. The facilitator and children discuss some of those while reiterating the need to manage stressful situations to maintain a healthy brain. The children are also introduced to the term *reciprocal relationship* as the facilitator describes the relationship between brain and behaviors. The brain is needed to do any behavior and behaviors keep the brain alive and can change the brain. The brain is also constantly learning, remembering, and forgetting information for survival. The brain grows and changes because the world changes. If the brain was not capable of change, survival would not be possible.

To help the children remember each component of SPEC Health, the facilitator compares each one to an animal in the jungle. They begin by reviewing Social Health. Just as gorillas rely on complex social structures to survive in the wild, humans do the same. A person's support system grows as they do. Around this age, peers begin to take a larger role in that system. Humans want to be accepted and included, but it is important maintain a strong sense of self as not to be persuaded by friends to do something uncomfortable. Being confidence in oneself and trusting advice of a support system is a great way to maintain Social Health.

Due to the reciprocal relationship, prioritizing behaviors to maintain good Physical Health is important. Tigers and leopards are used to help the children remember the need to take care of their bodies by eating, sleeping, and moving. Unlike these animals, humans do have to learn to manage numerous activities. Exposure to and interest in trying new activities is great for children at this age. The facilitator encourages them to find a way to

move their bodies through physical activity (soccer, dance, karate, running, etc.). A physically active body makes for a happy, healthy brain.

For Emotional Health, the facilitator shares with the children that elephants are actually very emotional animals. They can get angry and become very destructive. Unlike elephants though, people can learn to control their emotions. This is key for people to maintain the Emotional Health of their brain. The brain is not fully developed for children; therefore, it is easy for rash and big emotions to take over resulting in erratic behaviors like temper tantrums. The facilitator reviews the process to help avoid these situations, such as naming the emotion being felt, identifying the trigger, and implementing COPEing mechanisms that work to lower stress. Learning to handle challenges and confidently face them is an important skill for Emotional Health to develop early in life.

The brain is designed to learn; however, each brain is different and each learns differently. Identifying how someone best learns is a great way to improve their Cognitive Health. There are so many different methods for truly learning new content. Finding a fun way to learn makes it more enjoyable and easier. The facilitator also reminds the children there is a difference between memorizing and learning. Chimpanzees are identified as the animal to help the children remember Cognitive Health. Although chimps are brilliant animals and can remember many tasks and behaviors, one thing that sets humans apart from them is the ability to read and write. Reading and writing has allowed humans to learn from past generations. The brain loves to think and thinking makes for a happy, healthy brain.

The facilitator wraps up this story by reviewing the major points of this story with the children. The brain and its behaviors have a reciprocal relationship. The brain allows those behaviors and those behaviors can change the brain. Learning to handle situations that affect our Social, Physical, Emotional, and Cognitive Health is imperative to improving and maintaining a SPECTacular brain!

Story Objectives:

- Students will explain the importance of a healthy brain for survival.
- Students will define *reciprocal relationship*.
- Students will describe how the brain and body have a reciprocal relationship.
- Students will explain how the brain adapts to change to survive.
- Students will describe Social Health challenges and compare and contrast a gorilla's social structure to people's social support system.
- Students will identify coping mechanisms to overcome Social Health challenges.
- Students will describe how to prioritize Physical Health and compare and contrast a lion/cheetah's survival techniques to those of people.
- Students will identify coping mechanisms to overcome Physical Health challenges.
- Students will describe Emotional Health challenges and explain how to handle their emotions, unlike elephants.
- Students will identify coping mechanisms to overcome Emotional Health challenges.
- Students will describe Cognitive Health challenges and compare and contrast people and chimpanzees.
- Students will identify coping mechanisms to overcome Cognitive Health challenges.
- Students will explain how overcoming SPEC challenges improves brain health and allows them to thrive.