

Making Neuroscience Fun

A Brain Awareness Program for All Ages



Brain Health: It's SPECTacular

What to do TODAY

2nd Grade (🧠 A Brain Health Story)

In this story, the children set out on a **SPECT**acular adventure to explore the “Brain Zoo.” By comparing the four major components of a healthy brain (Social, Physical, Emotional, & Cognitive) to exhibits in a zoo, they will develop a deeper understanding of their brains’ functions.

- 🧠 The different functions of your brain allow you to carry out your daily lives.
 - 🧠 Each SPEC component contributes equally to your overall brain health and a decrease in one area can affect your overall brain health.
 - 🧠 Each person (and animal) has a unique brain and can utilize the SPEC components in different ways to maintain a healthy brain.
- 🧠 For this presentation, you need to have the “A SPECTacular Trip to the Zoo” Story Video. You will need paper and writing utensils for each student for Movement Matters Charades game. There is a Brain Teasers game that you can also play at the end of the presentation (if time permits). You will also need paper for the students to keep score and write answers for games.
- 🧠 Play the video and stop after the title slide.



So far during our visits, we have been talking about SPEC Health. **S** - for Social Health, **P** - for Physical Health, **E** – for Emotional Health and **C** – for Cognitive Health.

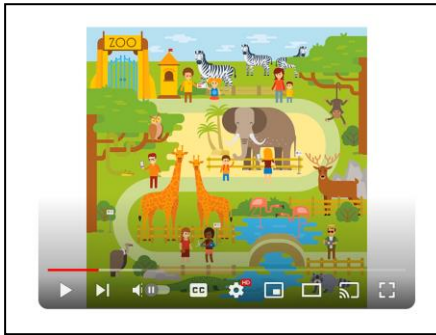
Different parts of your brain take care of our S-P-E-C Health.

Your brain has different parts and a zoo has different parts where different animals live. The different parts of the Brain Zoo correspond to the “S”, “P”, “E”, and “C” in SPECTacular. And the name of the program we have been doing is Brain Health: It's SPECTacular.

Ok...so today we are going to the zoo – the BRAIN ZOO!!!
That is one of my FAVORITE kind of zoos.

You might be asking...a BRAIN ZOO...What is that?!?!? Well, let's see.

- Continue playing the video and stop after the following slide. Have a discussion about zoo animals.



There are LOTS of different animals at a Zoo.

Ask the students...What is your FAVORITE zoo animal? Also, tell me WHY you like that animal.

Ok...so we know that there are LOTS of animals at the zoo and that the animals do different things and live in different parts (or habitats) in the zoo.

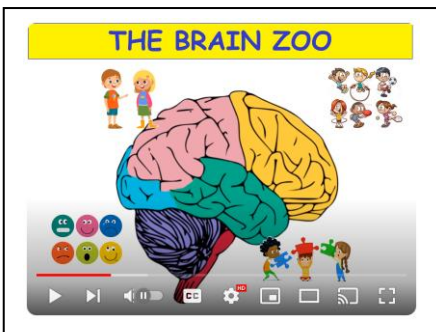
But, what is a BRAIN ZOO?

- Continue playing the video and stop at the following part of the next slide. Ask the Question...



Ask the students...What are some things you think YOUR brain helps you do? (You can remind them that their brain helps them do EVERYTHING!!!)

- Continue the video and stop at this part of the slide.

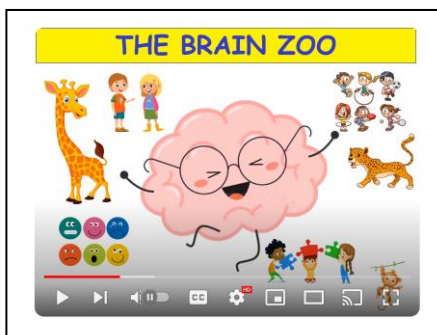


Ok...so just like a zoo has DIFFERENT animals that live in DIFFERENT parts of the zoo.

Your brain has DIFFERENT parts that help you to do DIFFERENT things.

So...your brain is like a ZOO. It has DIFFERENT parts that help you to make friends, to feel emotions, to move your body and the think!!!

- Continue the video and stop at the end of the slide with the question, "Who wants to go the Brain Zoo?".



Ok...Raise your hand if you want to go to the BRAIN ZOO.

- Continue the video and stop at the question, “What you like to do with your friends to have fun?”.



Ok...Our first stop at the Brain Zoo is the FRIENDSHIP Rainforest, which is in the SOCIAL part of our brain.

Ask...What you like to do with your friends to have fun? (Discuss)

- Continue the video and stop the question, “How do birds communicate with each other?”.



Ok...let’s think about this...

How do people **communicate** with each other? (Discuss – we talk, we write – using emails, texting, etc.)

Ok...do birds communicate by talking or writing? (parrots talk – but they just **mimic** they don’t **communicate**.) So...no.

Ask... How do birds communicate with each other? (Discuss)

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



The Friendship Rainforest is in the Social part of our brain and having friends is very important to our Brain Health.

Not only does having friends make your brain healthy – but being a friend to someone else also makes your brain healthy.

Ask...do you think that you belong in the Friendship Rainforest? Let’s think about this...

- Discuss with the students whether they belong in the Friendship Rainforest.

- Ask the students...What do YOU think makes a good friend? (You may need to give some examples...Dr. Gorman told us that friends “support us” and friends “help us to not feel alone”.)
- Discuss this for a few minutes.

At the end, remind the students that having friends and being a friend is very good for their brain health. Also be sure to tell them that it is not the NUMBER of friends that are important...it is the QUALITY (are they supportive friends).

Ok...let’s go back to visit to the Brain Zoo.

- Continue the video and stop at the question, “What do you do to MOVE your body?”.



Ask the students the question... What do you do to MOVE your body? (Discuss the answers)

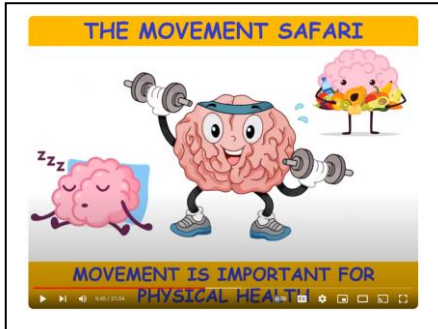
Be sure to remind them that their body is made of LOTS of muscles and muscles like to MOVE.

- Continue the video and stop at the question, “Can anyone think of any animals that are very strong and very fast?”.



Ask the question... Can anyone think of any animals that are very strong and very fast? (Discuss the answers)

- Continue the video and stop at the end of the following slide.



The PHYSICAL parts of our brain need us to move our bodies. Plus, if we move our bodies, we get to belong to the Movement Safari part of the Brain Zoo.

Let’s think about all the different ways that we can move our bodies by playing Movement Matters Charades.

- Movement Matters Charades** – (You still have 11 more minutes of the video and another activity – should you choose to do it.)

- You can decide if you want the students to do the charades alone or in pairs (if you choose pairs, tell the students this also helps their SOCIAL parts of their brains).
- For this Activity – students will need a piece of paper and something to write with to keep score.
- For the Charades part of the game, you will ask for a volunteer or a pair of volunteers to come up and you will whisper to them the activity they need to try to have the class guess (ideas are listed below). Give them a few minutes to think how they will do this.
- For the game, students will have to guess what “activity” they are being shown and then they have to **decide** if the activity is a movement that would help the PHYSICAL parts of their brains.
- For each charade, you will ask the students to **stand up** if they think the charade is demonstrating a movement that would help the PHYSICAL parts of their brains and to **stay seated** if they think it will not help the physical part of the brain.
- If they get it **correct**, then they get a point. They will keep their own scores.
- At the end, have the students total their points to see who “wins”.

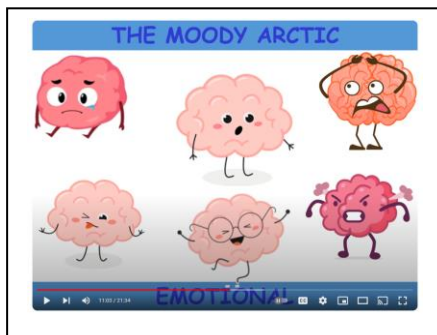
Physical Activities (all of these are movements that would help the physical parts of the brain)

Feel free to add any activity to this lesson. The ideas below are suggestions.

- Walking the dog
- Dancing around the room
- Yoga
- Stretches
- Walking to school
- Riding a skateboard
- Taking a bike ride
- Riding a scooter
- Rollerblading
- Playing tag at recess
- Climbing on playground equipment
- Playing kickball
- Climbing a tree
- Going swimming
- Karate
- Playing soccer
- Playing basketball
- Jumping rope
- Cleaning your room
- Washing the car
- Raking leaves
- Do pushups or jumping jacks during commercials when watching tv
- Play catch
- Crab walks
- Squats
- Go up and down the stairs

Tell the students that moving their bodies is so important for the **physical** parts of the brain and also gets them into the Movement Safari part of the Brain Zoo.

- Continue playing the video and STOP after each question to discuss. At the end of the following slide, reiterate the concepts.



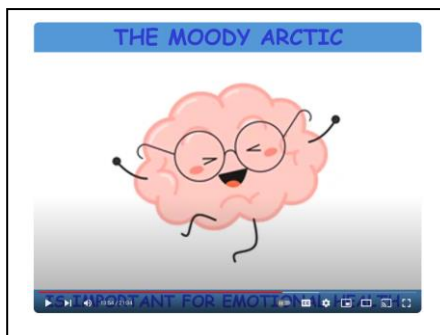
We all have lots of different emotions and that is ok.

It is important to understand that the emotions that we feel can affect our behaviors...when we feel happy we can handle anything – and even bad things do not feel so bad. But, when we are angry or sad, problems that we face seem like they are the “end of the world”.

Being able to identify and understand our emotions will help make the emotional part of our brains healthy.

Ok... so now let's visit the **Moody Arctic**, which is all about our **Emotional Health** and is the “E” in SPECTacular.

- Go back to the story video and continue the video to the end of Moody Arctic slides.



We all feel different emotions at different times. Even **polar bears and penguins** express their emotions, which is why they are in the Moody Arctic part of the Brain Zoo.

UNDERSTANDING how we feel is important because our emotions can change the way we behave.

If we understand our emotions, and realize it is ok NOT to be happy all the time, then we can control how we behave when we are feeling different things. This is good of the **emotional** parts of our brain.

Visiting the Moody Arctic part of the Brain Zoo helps us to understand our own feelings and that can help us build closer friendships and will allow us to have control over how we are feeling. And, most importantly, understanding our feelings will be good for our Emotional Health.

- Continue the video and stop at the following part of the slide on the Thinking Jungle.



So, our brains are thinking and changing ALL the time.

Thinking helps us to learn about world that we live in, BUT thinking can also be fun...

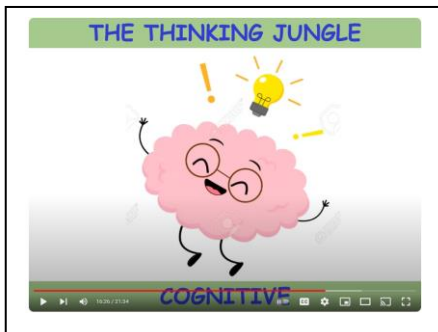
Let's play a game called **Brain Teasers**.

- For this game, divide the class into groups (however many you want). You will need ~ 8 minutes to finish the Story Video and close the presentation.)

- Tell the students that you are going to read a **brain teaser**.
- The students will have a few minutes to figure out the answer and write it down.
- Then you will read the **brain teaser** again and each group will be given a chance to tell their answer. They will get 1 point for a correct answer.
- Do as many of these as time permits and then see which group(s) wins.

By **thinking** about the answers to these BRAIN TEASERS, we are helping the cognitive (or thinking) parts of our brain to be healthy.

- Continue the video and at the following part of the Thinking Brain slides.



Remind the students that when they are at school, doing puzzles, or reading they are thinking.

Without the **Thinking Jungle**, we would have a lot of trouble solving problems, remembering things, and learning about our environment.

Thinking about the world around us will help us all have healthy brains and good Cognitive Health.

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



REMEMBER, your brain is like a zoo. It has different parts that help you do different things.

In the **Friendship Rainforest** we learned how making friends can help us build a social support system that will prevent us from feeling alone and that friends can help us during hard times – good for **Social Health** - the “S” in SPECTacular.


In the **Movement Safari** we learned about how physical activity not only makes our muscles stronger, but it makes our brains stronger too – good for **Physical Health** - the “P” in SPECTacular.

In the **Moody Arctic** we learned that understanding our own feelings can help us understand other people’s feelings too – good for **Emotional Health** - the “E” in SPECTacular.

In the **Thinking Jungle** we learned that when we think and learn something new, our brains change – good for our **Cognitive Health** - the “C” in SPECTacular.

So, understanding that the brain is like a zoo, with different parts that do different things AND you do things to take care of the SOCIAL, PHYSICAL, EMOTIONAL, and COGNITIVE parts of your brain – or the SPEC parts – then you will have a happy and healthy brain.

And remember, keeping our brains healthy is not just SPECTacular...it is FUN too!!!

 End the presentation.

Tell the students during your visits that you had fun talking with them and telling them the stories about how to keep their brains healthy.

Reiterate that keeping your brain healthy is easy if you remember that the S-P-E-C in SPECTacular – is for Social, Physical, Emotional and Cognitive Health!!!

Be sure to thank them for listening and being such a GREAT audience!!!

BRAIN TEASERS

Round 1 Easy

Round 2 More Challenging

1. Johnny's mother had three children. The first child was named April. The second child was named May. What was the third child's name?	1. A man stands on one side of a river, his dog on the other. The man calls his dog, who immediately crosses the river without getting wet and without using a bridge or a boat. How did the dog do it?
2. A clerk at a butcher shop stands five feet ten inches tall and wears size 13 sneakers. What does he weigh?	2. A sundial has the fewest moving parts of any timepiece. Which has the most?
3. Before Mt. Everest was discovered, what was the highest mountain in the world?	3. What is unusual about the following words: revive, banana, grammar, voodoo, assess, potato, dresser, uneven?
4. How much dirt is there in a hole that measures two feet by three feet by four feet?	4. What makes this number unique -- 8,549,176,320?
5. What word in the English language is always spelled incorrectly?	5. Put a coin into an empty bottle and insert a cork into the neck. How can you remove the coin without removing the cork or breaking the bottle?
6. Billie was born on December 28th, yet her birthday always falls in the summer. How is this possible?	6. Two boxers are in a match scheduled for 12 rounds. (Pure boxing only - no kicking, UFC takedowns, or anything else). One of the boxers gets knocked out after only six rounds, yet no man throws a punch. How is this possible?
7. In British Columbia you cannot take a picture of a man with a wooden leg. Why not?	7. In 1990, a person is 15 years old. In 1995, that same person is 10 years old. How can this be?
8. If you were running a race and you passed the person in 2nd place, what place would you be in now?	8. A man takes his car to a hotel. Upon reaching the hotel, he is immediately declared bankrupt. Why?
9. Which is correct to say, "The yolk of the egg is white" or "The yolk of the egg are white?"	9. What do these words have in common: polish, job, herb?
10. A farmer has five haystacks in one field and four haystacks in another. How many haystacks would he have if he combined them all in one field?	10. You're standing in a hallway with three light switches on the wall, each of which turns on a different lamp inside a closed room. You can't see inside the room, and you can't open the door except to enter the room. You can enter the room only once, and when you do, all the lamps must be turned off. How can you tell which switch turns on which lamp?

Round 1 Answers:

1. Johnny.
2. Meat.
3. Mt. Everest. It just wasn't discovered yet.
4. There is no dirt in a hole.
5. Incorrectly (except when it is spelled incorrecktly).
6. Billie lives in the southern hemisphere.
7. You can't take a picture with a wooden leg. You need a camera (or iPad or cell phone) to take a picture.
8. You would be in 2nd place. You passed the person in second place, not first.
9. Neither. Egg yolks are yellow.
10. One. If he combines all his haystacks, they all become one big stack.

Round 2 Answers:

1. The river was frozen.
2. An hourglass, with thousands of grains of sand.
3. Take the first letter of each word and place it at the end. It will spell the same word backwards.
4. It contains each number, zero through nine, in alphabetical order.
5. Push the cork down into the bottle. Then shake the coin out.
6. Both boxers are female.
7. The person was born in 2005 B.C.
8. The man is playing Monopoly. He lands on a property with a hotel and doesn't have enough money to pay the rent.
9. All three words are pronounced differently when the first letter is capitalized.
10. Turn on the right switch and leave it on for two minutes. After two minutes, turn on the middle switch and leave it on for one minute. When that minute is up, turn off both switches and enter the room. One light bulb will be hot (1st switch), and one will be warm (2nd switch). The cold bulb will correspond to the switch you didn't turn on.

Brain Teasers Credit: <https://www.forbes.com/sites/work-in-progress/2012/05/15/10-braintasers-to-test-your-mental-sharpness/?sh=28c70460336d>

Brain Teasers Credit: <https://www.forbes.com/sites/work-in-progress/2012/11/06/10-braintasers-to-stretch-your-brain/?sh=42cff1841ded>