

Brain Health: It's SPECtacular

## Lots of Ways to Learn ( A Cognitive Health Story) (2<sup>nd</sup> Grade – 7-8 yrs)

This story describes how the way that we learn changes as the world changes. Our ability to keep learning throughout our lifetime is what helps to keep our brain healthy.

- Back in the caveman days and early in our lives, we learn about things that help us to survive. All animals learn these survival skills from other animals that take care of them.
- Usually, what animals learn is passed down from one generation to the next. Humans have the ability to pass along knowledge from generations due to our ability to read and write.
- Reading and writing make learning easier and it gives humans more time to develop things like technology, which further helps our ability to learn.

### SLIDE #1 - INTRODUCTION:

Good Morning (Afternoon)!

My name is \_\_\_\_\_\_ and I (describe who you are and give your relation to neuroscience – ex. you are a Neuroscientist, you study neuroscience, you have a friend that is a neuroscientist or you have recently been learning a lot about neuroscience).

Neuroscience, that's a really big word! But, a neuroscientist is a person who knows a lot about the brain.

I am here today to talk to you about how you can help to make your brain healthy – feeling good. It is REALLY easy and anyone can do it.

I love to talk about Brain Health because it's SPECtacular!!! SPECtacular means "GREAT". When your brain is SPECtacular, you are a happy and healthy person.

This story is about Cognitive Health – which is the C in SPECtacular. Cognitive Health is about thinking...and not just when you are in school. Cognitive is a big word that means being able to think.

Your brain thinks all the time, that is something you do inside of your head.

It is your brain's job to think and by thinking you are making your brain healthy.

So, let's see how you can keep your brain healthy.

# SLIDE #2 – LOTS OF WAYS TO LEARN

Learning is something that is important to all animals – and yes, people are animals too.

Animals need to learn about the world that they live in so they know what to eat, where to sleep, which animals to hang around with and which animals want to eat them.

As the world around them changes, so do the things that they need to learn.

This story talks about how learning has changed since back in the caveman days AND how we learn also changes as we get older.

Understanding how we learn changes and that different people learn in different ways at different times in their lives is important for our Cognitive Health.

Being able to keep learning throughout our lifetime is what helps to keep our brain healthy.

# SLIDE #3 – LEARNING

Back in the days of the cavemen, children did not go to school to learn.

Children in the days of the cavemen spent all of their time trying to learn how to get the things they needed to stay alive.

People had to hunt to get the food they needed – there were no grocery stores to get food. There were also no refrigerators (or electricity) to store or cook the food.

People lived in caves, because they did not have the tools they needed to build houses. The caves helped them avoid animals that wanted to eat them. They also helped to protect them from the weather.

Because cavemen spent all of their time learning how to stay alive, they did not have time to learn how to read and write.

# SLIDE #4 – READING & WRITING

When you learn how to read and write, it is easier to learn all kinds of things.

That is why schools spend so much of time teaching children how to read and write.

Once you learn how to read, then you can learn anything.

Before people could write, they had to learn by doing things themselves or by having others show them how to do things.

Because animals cannot write – this is how animals learn – by watching other animals that take care of them.

Being able to write things down, we have a history of what people have thought about and learned.

So, when the ancient cavemen learned how to make a fire to cook food, they were able to write how to do it down (on the walls of caves) and then others could learn too.

When the ancient cavemen learned where all the dangerous animals lived, they were able to write it down so others could avoid them.

When you are able to learn from others about what they learned, then you have more time to think and learn new things.

So, learning how to read and write is an important step in our being able to learn.

# SLIDE #5 – LEARNING STYLES

As you learn how to read and write, it is important to know that everyone can learn – but, different people may learn differently.

You may learn things one way, but your friend may learn things better another way.

There are lots of reasons why people learn differently and most of them have to do with your brain.

## SLIDE #6– DIFFERENT HAIR AND BRAINS

Let me explain.

When you look at people, you see that most people have hair on their heads.

We know that while everyone has some kind of hair, that the hair can be different colors and different textures (straight, curly).

We also know that some people like to have long hair, others short hair and some like to shave off their hair. We are not sure why – they just do.

We can think of the brain in the same way, all people have a brain.

We know that all people can think and learn.

We also know that for some reason, some people like to use their brain in different ways. Some people like to read, others like to build things, others like to think about numbers...the list goes on forever.

### SLIDE #7 – MAKE LEARNING FUN

The secret to being able to learn is to find a way to learn using a way that your brain "likes" to do things.

Let's say that you are learning about different states of matter in science. You learn that there are gases, liquids and solids.

Some people will try to learn and remember this information by writing it down on cards or saying it out loud to themselves or others (in study groups).

But, did you know that cooking can also help you to learn about different states of matter?

Lots of people like to think about cooking and baking and they love cooking and watching cooking shows. Did you know that when you start to make a cake the cake batter is "liquidy" at first? You then pour it into a pan and put it in the oven. The heat turns the "liquidy" batter into solid cake – yum!

You also just learned that if you change the heat the state of the matter will change --- you turned a liquid into a solid by adding heat – as long as you have molecules that can combine and link together.

You can also change a liquid to a solid by taking away heat ---think about making popsicles. If you heat a liquid – like when you boil water – you get a gas – steam.

Thinking about things in a way that you enjoy is an easy way to learn – and you tend to remember things better that way.

### SLIDE #8 – FRACTIONS & PIZZA

Let's say that you were learning about fractions in math.

Here again, we can use something that we like to think about to help us learn.

Some people just love numbers and their brain love to think about numbers. Learning fractions is easy for them to do.

Lots of people LOVE pizza...so how can we use our love of pizza to help us learn fractions? Let's say you wanted to know whether  $\frac{1}{4}$  is bigger than  $\frac{1}{2}$ . Well, lucky for us, most pizzas are cut into slices.

You learned that a fraction is a piece of something bigger. You also learned that the bottom number of the fraction tells you how many pieces to break the bigger thing into.

So, at first you think 4 is bigger than 2 --- so is 1/4 bigger than 1/2?

Then you think about your pizza...if you cut a pizza into pieces 4 then each piece would be  $\frac{1}{4}$ ...if you cut a pizza into 2 pieces then each piece would be  $\frac{1}{2}$  – which piece would be bigger  $\frac{1}{4}$  or  $\frac{1}{2}$ ? Let me ask you this...if you were hungry which piece would you want to eat???? Yup, the piece that is  $\frac{1}{2}$  of the pizza is bigger than the  $\frac{1}{4}$  of the pizza.

If you cut a pizza into more pieces – you have more pieces, but they are smaller. If you cut a pizza into 2 pieces, there are less pieces but they are bigger. YAY! You now know that  $\frac{1}{4}$  is bigger than  $\frac{1}{8}$ . Thank you pizza...for helping us learn about fractions.

Thinking about things in a way that you enjoy is an easy way to learn – and you tend to remember things better that way.

### SLIDE #9 – BABIES LEARNING

So, people learn different things in different ways and you just need to find how your brain likes to learn. Plus, the way that you learn changes as you grow up.

When you were young you most likely learned differently than you do now – so we change the way we learn things.

Did you ever wonder why babies and toddlers put everything in their mouths?

It is because babies tend to be interested in food – think about it...most babies just eat, sleep and make messy diapers. So, babies use their mouths a lot to explore the world they live in.

When you were a baby, you probably put lots of things in your mouth.

### SLIDE #10 – GROWING UP

**QUESTION:** Do you try to figure out what something is now by putting it in your mouth?

Of course not. Now when you are trying to figure out what something is – you may pick it up, look at it, you may smell it – but, rarely do you stick it in your mouth.

Babies use their mouths because they cannot move their hands and pick up things like we can.

As you grow up, your body and your brain grow up too. You are able to do more things and because of this, you are able to learn more things.

### SLIDE #11 – LEARNING NEW THINGS

Because people are able to read and write, they can learn how to do lots of things easily. This gives us more time to think and learn about new things.

People learned how to make cars and planes, so we can get to places faster.

People learned how to make phones, so we can talk to others even when we are far away.

People learned how to make computers, so that we can do our work and play more.

### SLIDE #12 – DIFFERENT WAYS TO LEARN

So, the next time you have to learn something in school, try to use a way that your brain likes.

Remember, there are lots of different ways to learn.

You may like to learn about math by reading about how it works, or practicing various problems. While your friend may like to learn about math by using flashcards or even blocks. You are all learning about math, you are all just learning in a way that makes each of your brains happy. Different people learn things differently because our brains are all a little bit different – just like our hair.

Plus, you may find that you like to learn different things in different ways. You may like to read about how to do math, but you like to write what you learn about in science. You find that you remember both better by using different ways to learn.

You just need to find the best way for you to learn different things that will make your brain happy.

#### SLIDE #13 – ASK FOR HELP

Also remember, that if you are having trouble learning - there are lots of ways to get help.

You can ask other people for ideas on different ways to learn. Your teachers, families and friends may be able to help you. Just remember that people learn in different ways – so what works for them may not work for you.

You can get ideas on good ways to learn from others, but it is up to you to figure out the way that your brain likes to learn. When you figure this out, then learning is fun.

Your brain likes to think and learn. This is how your brain stays healthy and you stay happy.

#### SLIDE #14 – LEARNING IS FUN

Just remember, your job right now is to go to school and learn. Learning can be lots of fun when know that there are different ways to learn.

Plus, because you learn how to read and write - you can learn anything.

Animals learn too....but, they cannot read or write – which is why they do not go to school and why we can do so many more things than any other animals can do.

But...that is another story.

### SLIDE #15 – CONCLUSION

Thank you all for letting me talk to you about the lots of ways to learn. You can read and write, use a computer to watch videos and do work, you can listen to your teachers stories or podcasts, you can act out what you learn or do experiments – like cooking.

I have enjoyed spending time with you today talking about the brain. I hope that you have had some fun and learned something about your brain.

REMEMBER, everyone has a brain and can learn. The secret is finding out the way that your brain likes to learn and remembering that the way that you learn changes as you grow up. Thinking and learning helps your brain stay healthy and is SPECtacular.

THANK YOU SO MUCH FOR ALL OF YOUR HELP!!! Brain Health is not just SPECtacular...it is FUN!!!