

# Journey to the Centre of the Brain

Devised by MakeBelieve Arts

Written and Directed by Trisha Lee

Design Ian Teague

Musical Director David Baird

Original Cast:

Brett Fancy

Hannah Johnson

Jai Vethamony

Paul Andrews





*(Zac and Mark playing with toys in a bedroom)*

Zac            On top of the mountain, Super-Stegosaurus scans the horizon.  
Mark           But then Mr Potato comes into town, with his pizza of doom and his supersonic hot dog! He is the strongest potato in the world.  
Zac            Stegosaurus sees Mr Potato, and he doesn't like the look of his face 'cause it keeps on changing, so he swoops down on him. Roaaaarrrr...

*(Mr Potato is on the floor and his arms, glasses etc, are knocked off)*

Zac            Then he laughs.  
Mark           It was a sad moment to see him lying on the floor merely a sad bashed up potato.  
Zac            The dinosaurs are the winners!  
Mark           No! Because Mr Potato put himself back together again, and this time he is stronger than ever. And he chases the stegosaurus.  
Zac            But the stegosaurus hides in his secret cave.



*(Zac goes under the bed – the cave. Mark chases him in. Zac comes out the other side then Mark comes half out holding the homework)*

Mark Is this your homework?  
Zac The dinosaur sees the homework and he chewed it up.  
Mark We're supposed to be doing our homework. For the test tomorrow.  
Zac Do you want to?  
Mark No, but what if your Mum comes up?  
Zac Just tell her we did an hour then started playing.  
Mark Okay. So Mr Potato threw the pizza of doom at his head.

*(Does a fighting move - and throws the pizza)*

Got you!

Zac No he didn't. Because stegosaurus did a backflip and caught the pizza with his legs and ate it 'cause he loved pepperoni.  
Mark Well, Mr Potato got in a jeep and drove it straight at the dinosaur and said *(takes the eyes off)* I've got my eye on you!  
Zac That's such a dad joke.  
Mark *(spotting dad in the door)* I like your dad.  
Zac Such a dad joke.  
Mark Your Dad's really funny *(pointing)*  
Zac *(turns)* Oh, hi dad.  
Mark Hi Mr Jameson  
Dad Are you having fun?  
Zac We're just playing.

*(Dad sees the homework and picks it up)*

Dad Is this your homework?  
Zac Yeah. We've done some.  
Dad Let me have a look.

Mark Mr Jameson, did the dinosaurs live at the same time as the human beings? Let's play a game, Mr Jameson, where you're the dinosaur and we're the human beings. You've got to go into the cave and the dinosaurs and cavemen are fighting inside. Who do *you* think will win?

Dad Okay, just for a little while, I'll be the tyrannosaurus rex.

Zac Go in the cave!

*(Dad goes into the cave)*

Zac But the cavemen tricked the dinosaur and they got a big rock and put it over the cave to keep him in.  
Mark Yeah let's trap him in.  
Dad Are you stuck Mr Jameson?  
Dad I am stuck, I am very stuck.

Zac                   Burst out, burst out.  
Dad                   Raaa!



*(Mum walks in – Mark sees her, Zac see hers then she bends down under the bed and dad see her)*

Mum                   Checking on the children were we?  
                          Zac, Have you done your homework?  
                          You haven't written a thing.  
                          Mark I thought you were coming around to help.  
                          I think it's time for you to go home, its getting late.  
                          Anthony, can you take him home please?  
                          Say goodbye to your friend Zac.  
Zac                    Mum...  
Mum                   Zac!  
Zac                    Bye Mark, see you tomorrow.  
Mark                  Bye Zac, Bye Mrs Jameson.  
Zac                    Mark, Bring your football tomorrow.  
Mark                  Okay, and you bring your Match Attacks.

*(Dad and Mark leave)*

Mum            Why haven't you done your homework? And why is it such a mess in here? I tidied in here this morning. Could you help me tidy up please?



*(They start to put things away- and find a letter)*

Mum            Zac what's this? It's a letter addressed to me, why didn't you give it to me?

Mum            Dear Mrs Jameson,

We are concerned by Zac's lack of concentration in class. He is an imaginative boy, but he is prone to bouts of silliness. He often loses focus during a task and as a result is falling behind the others.

On Friday 14<sup>th</sup> February his whole class will be having an important test. We are writing to ask if you could support him over the next few days, helping with homework and ensuring he takes time to focus on his learning.

Without which we are worried he will not do well.



How long have you had this? That's tomorrow; you have an important test tomorrow?

Did you hide this from me?

Zac No, I must have just put it in there by accident. Mark probably put it in there.

Mum Zac, don't lie to me, it's been opened.

Why did you hide this from me?

Zac I didn't hide it, I just forgot.

Mum They say you don't concentrate, that they're worried about you. Have you been getting in to trouble again? I've told you before, you need to listen to the teacher and do what you're told.

Zac I try to listen.

Mum You haven't even done your homework. If you'd told me I could have helped you.

I don't know what to do with you sometimes, you need to stop daydreaming and start focusing.

Come on you, it's bedtime.

Zac But Mum I don't want to do it, I don't think I'm good at tests. I didn't give you the letter 'cause I thought if I put it over there, it might go away.

Mark's good at learning, he always get top Marks, I thought he could help me. But when he came round I just showed him my dinosaurs, and then we started playing.

Mum You just need to try a bit harder. Do your homework, concentrate in lessons.

Zac I don't feel very well. My head feels hot and my tummy hurts

Mum You're not hot. You're just pretending so you can get out of the test tomorrow.

Zac But if I was sick would I be able to miss school?

Mum You're not going to be sick.

Zac Mum, Have I got a brain?

Mum of course you have a brain, you just need to learn to focus it sometimes.

Zac Rebecca said I was thick in school, cause I got a question wrong? She said I didn't have a brain, if I do have one, I don't think its working properly.

Mum Just do your best, that's all I ask. Now, come on you, go to sleep, at least make sure your rested for the test.

*(Mum starts to leave, dad at doorway)*

Dad Test?

Mum Tomorrow!

Dad Zac, you should have told us.

Dad Good luck for tomorrow, I was never any good at tests.

But you need to try your hardest. Tests are important. Night son.

Zac Night dad.

Mum Night love.

*(They leave, Zac is unable to sleep)*



Zac I can't sleep, why is my clock ticking so loudly, shush clock. I wonder what dad's listening to on telly, is that my dinosaur making that shadow? Hi ted, I haven't played with you for a while.

I've got a test tomorrow, I hate tests, you're lucky ted; you don't have to do tests. All you have to do is sit here all day in my bedroom, watching over all my toys. Do you remember when I was younger and I used to take you everywhere with me, and I really believed you came alive at night when I was asleep.

**Voice Hello Zac.**

Zac Hello ted, are you talking to me?

**Voice Zac, I'm your brain.**

Zac You're not my brain, you're my teddy bear.

**Voice I am your brain, Zac, put down the toy, it's not the teddy bear speaking, it's me, your brain. I need you to focus, I have a test tomorrow.**

Zac You have a test tomorrow?

**Voice Yes.**

Zac I have a test tomorrow too

**Voice I know. We both have a test tomorrow, I'm your brain. If you have a test I need to be there as well. It's part of what I do.**

Zac If you're my brain what's my favourite toy?

**Voice Dino.**

Zac It's a lucky guess, if you're my brain what's my favourite colour?

**Voice Red.**

Zac What's my mum's name?

**Voice Madeline.**

Zac What's my dad's name?

**Voice Anthony.**

Zac Okay what bike did I have when I was...

**Voice A BMX, I am your brain, I know everything about you, Us!**

Zac I don't believe you, if you're my brain, what's the answers to the test tomorrow?  
**Voice The brain doesn't work like that, I can't just give you the answer, unless you've put it inside me in the first place.**

Zac But why, if you're my brain you should be able to tell me anything, brain, brain?

Why do I have to do the test, everyone will laugh at me - if I was a bird I could fly away into the sky and never have to worry. I had a bird once, a little pet bird, it was a long time ago and I was in my garden and I found an egg, and I looked after it, and I wrapped it in hay and kept it warm and one day the egg started to break.

And a bird hatched out, I called it Chirpy, and it started to fly, 'cause these birds fly all the way to Africa, and all the way back. So I showed Chirpy where the garden was, and I showed him the tree, and he started to fly, and he saw a friend, and they started to fly together, and other birds joined them, and they flew high into the sky, all the way to Africa. And from high in the air they looked down on all the tiny houses. And people came out of their houses and waved at them as they flew past in the sky.



If only I could fly away.  
Or roll under my bed and never come out.  
I wish I could hide in my brain.

**Voice**  
Zac

**Zac! Be careful.**  
I wish I could hide in my brain all day tomorrow.

**Voice**  
Zac

**Be careful what you wish for....**  
I wish I could I hide in my brain all day tomorrow and search for the answers to this test.

**Voice**

**I warned you...**





*(Transformation of set and journey into the brain)*

Neo Helper 1            He's here.  
Neo Helper 2            But how did he get here?  
Neo Cortex                He made a wish.  
Neo Helper                Just one wish?  
Neo Cortex                No, three times.  
Neo Helper 2              Three times? Did you not try to warn him?  
Neo Cortex                Yes I did but he wouldn't listen.  
Neo Helper 2              Well no surprises there then. Since he's here, shall we?

*(Nudging and focusing on him)*

Neo Helper 1            Welcome to your brain.  
Neo Helper 2            Whilst you are in the brain, you will need to listen carefully, we will be moving through your past and your present so you will need to focus and pay attention. We know you find this difficult but we will do all we can to make this an enjoyable experience for you.  
Neo Cortex                At various points we might need to call upon others to help you.



*(Reveals audience)*

Zac                      How did they get in my brain?

Neo Cortex            I invited them.

Neo Helper 2         There's a lot of them.

Neo Helper 1         But they look friendly enough.

Neo Helper 2         Oooh look, that one's smiling, they look like a friendly bunch. I think it's going to be okay.

Neo Cortex            Now as part of your induction we would like you to watch a short introductory demonstration on how the brain you are now in came to be in existence.

Neo Helper 2         Please listen carefully, buckle up your seat belt and keep it securely fastened around your waist for the duration of this demonstration.

Neo Helper 1         Underneath your seat there is a life vest should you to need to evacuate this brain in an emergency.

Neo Helper 2         Your safety is our first priority. Are you sitting comfortably? I'll begin.

                              Millions of years ago, the first living things crawled out of the swamp.

*(Zac is strapped in a seat, looking all other the place and not focused)*

Neo Helper 1         Maybe he should get involved too, you learn better that way.

Neo Helper 2         Oh yes, good idea.  
Millions of years ago, the first living things crawled out of the swamp. Their brains were tiny, controlling their heartbeat, their temperature and their ability to wriggle and squirm. These reptiles did little more than eat, sleep, and survive.

Neo Helper 1         Time passed and in some creatures things began to change. Around their tiny reptilian brain grew another section, the emotional brain. And as these mammals, began to crawl on all fours they found safety in numbers. Their emotional brain meant they could work together, hunt in packs, nurture their young and live in close proximity.



Neo Cortex                    Then over 4 million years ago, in the savannah in Kenya, the brain began to evolve further, and our first human ancestors stood up; wrapping itself around the emotional brain was the Neo Cortex, the thinking brain. Using this brain, early humans discovered how to make fire, to cook, to sharpen stones and use tools.

Neo Helper 1                They began to communicate, they built communities and as their brains developed they were able to work together, to play and solve problems, and support one another.

Neo Helper 2                As their buildings grew taller, their solutions grew more complex, and the human brain began to work faster and faster.

Neo Cortex                    Til it became the amazing entity you are standing in today: a brain in three parts.

Neo Helper 2                Reptilian.

Neo Helper 1                Emotional.

Neo Cortex                    And Neo Cortex.

    Pleased to meet you.

Zac                                You're the one who was talking to me in my bedroom.

Neo Cortex Yes, I'm your Neo Cortex, the thinking part of your brain. The bit here. I'm responsible for conscious thought. I sort out all the jumble of thoughts that come into your brain, find out which one has the most weight and then make you aware of it.

Zac I don't understand?

Neo Cortex It's probably easier if I take you back to yesterday. Can we have a memory from the Hippocampus please?

Neo Helper 1 Activating memory.

Neo Helper 2 Memory arriving.

Neo Cortex You're in school, it's nearly the end of the day and you are sitting at your table, staring out of the window.

Zac I remember.

Neo Cortex Then your teacher stands up, tells the class to pay attention and that she has an important announcement to make. She goes on to remind you about the...

Neo Helper 2 Test (*at same time as Zac*)

Zac Test (*at same time as Neo Helper2*)

Neo Helper 2 Don't forget tomorrow you all have your Big Test.

Neo Cortex And at that precise moment this is what then happened in your brain.

**Voice (Jumble of several thoughts on failure etc)**





Neo Cortex It's all a bit of a jumble when it first comes in, you see it comes in really fast, - I'll show you again but this time I'll slow it down a bit. There you are, staring out of the window when...

Neo Helper 2 Important announcement coming in from Miss.  
Neo Helper 2 Cross Arms.  
Neo Helper 1 Cross Arms.  
Neo Helper 2 Eye contact.  
Neo Helper 1 Eye contact.  
Neo Helper 2 Nodding.  
Neo Helper 1 Nodding.  
Neo Helper 2 Sitting quietly.  
Neo Helper 1 Sitting quietly.

Neo Cortex Meeting, meeting – let's try to get some order to these thoughts.  
Neo Helper 2 Eye contact.  
Neo Helper 1 Arms crossed.  
Zac When miss is talking I have to give her attention and sit up straight, I am trying to show good listening.  
She looks around the room for eye contact so I have to keep staring at her.

Neo Cortex Nodding, good, if I nod my head it looks like I'm listening.

Neo Helper 1 Delivering, delivering.

*(Zac Nods head in response to the instructions of the plan)*

Neo Cortex And when the teacher made the announcement about your test, your thoughts went all over the place...

Neo Helper 2 Incoming information.  
Test.  
Neo Helper 1 Test.  
Neo Helper 2 Fail.  
Neo Helper 1 Fail.  
Neo Helper 2 Rebecca teases.  
Neo Helper 1 Rebecca teases.  
Neo Helper 2 Mark's Marks.  
Neo Helper 1 Mark's Marks.  
Neo Helper 2 Mum's cross.  
Neo Helper 1 Mum's cross.

Neo Cortex Meeting, meeting, more ordering needed.  
Oh no! I forgot about the test.  
Neo Helper 1 I know I'm going to fail: – I hate tests.  
Neo Helper 2 Rebecca said that I was thick yesterday.  
Neo Helper 1 Mark always gets good marks.



Zac I forgot all about the test. They'd sent a letter home about it last week, but I didn't give it to my mum because I wanted it to go away. Rebecca kept teasing me every time I gave a wrong answer. She called me Zackary the no brain.

If I do bad at school my mum gets cross.

Neo Cortex I'm sorting through the various worries. Mark's marks, Mum's cross, Rebecca laughing, Fail test.

Neo Helper 2 And the winner with the most emotional stress is...

Neo Cortex Rebecca laughing at me and everyone thinking I'm thick.

Neo Helper 1 Delivering, delivering.

Neo Helper 2 More Information Coming in.

Mark's clever.

Neo Helper 1 Mark's clever.

Neo Helper 2 Good Marks.

Neo Helper 1 Good Marks.

Neo Helper 2 Get help with the test.

Neo Helper 1 Get help with the test.

Neo Helper 2 Do well.

Neo Helper 1 Do well.

Neo Helper 2 Chewing gum.

Neo Helper 1 Chewing gum.

Neo Cortex Meeting, meeting, maybe we can get some clarity over here.

Mark is clever, she's my best friend.

Neo Helper 1 I can do homework with Mark at my house.

Neo Helper 2 That way, I will do well in my test.

Neo Cortex What's this sticky thing under the chair, it feels squidgy.

Zac Mark's my best friend, she's clever, but she doesn't show off about it, she explains things to me and makes me feel clever too. I decided that we could do homework together that evening and prepare for the test. That way I might get good marks too.

There was something stuck under the chair, it was a lump of chewing gum, it smelt of strawberries.

Neo Cortex I need to concentrate on my work and ignore the chewing gum.

Chewing gum, work.

I needed to find out which one had the most emotional content.

Work, chewing gum.

I will concentrate on the chewing gum and ignore my work.

Neo Helper1 Delivering, delivering.

Zac Oops... Miss was really cross with me, and my hands were really sticky.

Neo Helper 2 I forgot all about the test.

Neo Helper 1 Mark's coming around tonight.

Neo Cortex Mark's my best friend.

Neo Helper 2 She gets good marks.  
Neo Helper 1 I don't get good marks.  
Neo Cortex And Mum gets cross.  
Distractions.  
Zac Sometimes I get distracted.  
Neo Helper 1 Chewing gum under the chair.  
Neo Helper 2 Dinosaur on floor.  
Neo Helper 1 Shadow by the window.  
Neo Helper 2 Loud noises outside.  
Neo Cortex It's a little confusing in your Neo Cortex right now, I wondered if you could give me a hand, if I'm going to pass the test I need to make a plan.  
Zac You're supposed to be giving me a hand.  
Neo Cortex You're supposed to be giving me a hand.  
Zac Can you help me find the answers to the test.  
Neo Cortex Can you help me find the answers to the test.

Zac I don't know what to do.  
Neo Cortex I don't know what to do.

*(Amygdala and Temporal Lobe enter. Amygdala holds up sign saying **I'm scared about the Test**)*





Zac                      This is important. I'm going to fail the test, everyone will think I am thick  
- You must have the answer in here somewhere. You are my brain, Neo  
Cortex, Help me.

*(Zac notices Amygdala and Temporal Lobe)*

Zac                      Who were they?  
Neo Cortex            You don't want to know? You need to work out a plan.

Zac                      Why can't you just tell me the answer? I don't understand. You're  
supposed to be the thinking part of my brain. I don't understand!

*(As the song starts Neo Helper2 comes back in with ukulele, and Neo Helper1 comes back to sing)*

*Zac*

I don't know if he's listening, I don't understand,  
I'm trying to get a grip of things, I can't make a plan.

*Neo Cortex*

Receive it, sort it, send it  
Receive it, sort it, send it.

*Neo Helper1*

So much is going on  
When you make a plan  
Recall a thought  
Try to understand.

*Neo Helper1 & Neo Cortex*

Receive it, sort it, send it  
Receive it, sort it, send it.

*Zac*

It's hard to make a plan  
When your brain is full  
And they laugh at you  
In your class at school.

*Neo Helper1 & Neo*

Receive it, sort it, send it  
Receive it, sort it, send it.

*Zac*

I don't, I don't, I don't understand  
I can't, I can't, I can't make a plan.

*Neo Helper1 & Neo Cortex*

Receive it, sort it, send it  
Receive it, sort it, send it.





*Neo Helper1 & Neo Cortex*  
Information coming in from  
All around  
Sometimes it's lost and  
Then it's found.

Receive it, sort it, send it (information)  
Receive it , sort it, send it(information)

*Zac*  
Giving me a test  
That I find difficult  
I try to be good  
And not someone that's rude.  
I just get distracted  
When I feel confused.

*Neo Helper1 & Neo Cortex*  
Receive it, sort it, send it (information)  
Receive it, sort it, send it (information)  
Receive it, sort it, send it (information)

RECEIVE, SORT, SEND!

Zac Information. I've got it!  
But where does the information come from?

Neo Helper 1 I think it's time we explained to him how templates work.  
Zac Ten plates?  
Neo Helper 2 Yes.  
Zac Ten plates like what I eat my (*insert whatever was school dinner today*)  
on?  
Neo Cortex No, not ten plates. Templates.  
A template is a bunch of nerve cells that join together, because they want  
to store the information that you want to remember.

Neo Helper 2 If he's going to understand this, I think we need to get him actively  
involved, and them.

Neo Helper 1 Of course, we all learn better by doing.  
Neo Cortex Well, we'd better clear some space for some of them then.

Neo Helper 1 I wonder if you can help?  
If I say the word cat, can you all get a picture of one in your brain?  
Have you all got one?  
But how do you know that the picture that you are seeing now is really a  
cat?

It's because an amazing thing has happened in your brain.  
When I say the word cat.

Your brain pulls together all the pieces of information that you know about cats, they have a long tail, they purr, they've got claws.

All these pieces of information that you formed, all those years ago when you were a small child, and you first learned that that animal in front of you was a cat.

And it all happens so fast that you don't even realise you're doing it.

Let me show you another way.

Can I have 1, 2, 3, 4, 5, 6 of you.

Could you come up here.

Now what I want you to do is hold onto one of these pieces of rope.

This is our cat template.

And when I say the word cat your brain is going to pull all the bits of information stored all around it about the word cat – and it's going to light up this template.

So what I want you to do in a moment is to slowly open up the template when I say the word cat and everyone else thinks of one.

Okay so are we ready?

Think of a cat.

*(Template opens)*

Can you read out the words on it?





Neo Helper 2 *(repeats as children read)* Whiskers, miaow, long tail, claws, purring, furry.

Neo Helper 1 These are some of the things that go into making up the cat template in your brain.

*(Cat template closes)*

And these all come together, in a nano second. Every time we think of anything millions of templates light up all over our brains.

But it gets even more exciting.

Supposing the CAT (Neo Helper2 *brings the cat up*) I'm thinking cat so it opens up you see – this template is really getting a work out (*cat template closes*)

So supposing the CAT (*cat comes back up*) was hungry (*cat closes up*)

Now that's where more of my templates need to get involved so I can make a plan.

In order to feed the CAT (*cat comes up and then closes again*) I need to get the cat bowl and the cat food. In order to know how to do this I need to summon up my CAT BOWL and CAT FOOD template.

Can I have 1, 2, 3, 4, can you be the CAT BOWL  
And can I have 1, 2, 3, 4, 5, 6, - can you be the CAT FOOD

Neo Helper 1 So imagine you are in your kitchen and the CAT (*cat opens up and then closes*) starts rubbing around your legs wanting some food  
To feed it, you need to make a plan

So your brain lights up the CAT BOWL template  
Can you open up please  
And what does your template say

Zac *(repeats as children read)* Circular, blue, plastic, scratched

Neo Helper 1 Again these are all the bits of information stored around your brain that let you know this is a cat bowl

*(Cat bowl shuts)*

And then I need to put the CAT FOOD in the bowl  
Can you open up the Cat Food Template  
And read what it says

Neo Cortex *(repeats as children read)* Jelly, gravy, smelly, tin, fish, pinky/brown

*(Cat food shuts)*



Neo Helper 1      So you are in the kitchen - which is a whole other set of templates...  
And the CAT (*cat template opens up*) walks over and your brain lights up  
the Cat part (*stay up*)  
And it wants food  
So you get the CAT BOWL (*cat bowl opens up*) and you grab a tin of CAT  
FOOD (*Cat food opens up*) without even realising it, you have formed all  
of these separate templates into a plan that you have carried out - (*all  
close templates*)

Plus of course you now have a very happy CAT (*cat opens and closes*)

And this exact process happens for everything you think, whether you're  
looking out the window, and a template lights up, at the rain, and another  
template arrives, or even if you are making a plan about going outside  
and you need to find your Boots

Zac                      Boots?

Neo Helper 1      Yes, there's a template for everything, even your boots  
(*To children*) Thank you for helping  
You can go and sit back down now

(*Children sit down*)

Zac                      So, Neo Cortex, I'm beginning to understand, I have all these templates  
around my brain that get activated every time I think of anything.

Neo Cortex          Yes

Zac                      But when I think of my test they don't seem to be working. I'm rubbish at  
tests.

(*Amygdala and Temporal Lobe enter, Amygdala has a sign reading **I'm going to fail.** Zac  
doesn't even notice*)

Zac                      So why am I not getting any test templates, surely the knowledge is in  
here somewhere.

Neo Cortex          Well it could be if it was something you were excited about

Tell me something that you like...

Zac                      Dinosaurs

Neo Cortex          When did you start liking them?

Zac                      I was taken to a Museum when I was younger, I saw this gigantic  
Tyrannosaurus, when I got home I found out so much about them.

Neo                      Yes, and you were very excited about that dinosaur-and I wanted you to  
store that knowledge – so I sent down a special chemical, glutamate, to  
activate some of your neurons, your brain cells, 1, 2, 3. Brain cells,  
you're activated. You see, they started to get excited.



Then another part of the brain, an emotional part, the bit that loved the dinosaurs, sent down another chemical, Dopamine, to make them keen to contact others like themselves and as they reached out their fingers of neuroplasm across the brain to find each other, they left a little gap, synapses across which they can fire information every time you think of a dinosaur.

And that's how you make a tiny part of one of those templates. Not a cat template, but this time a dinosaur

Try it.

*(Zac thinks – reaction)*

Zac Wow. I was thinking of a tyrannosaurus.

Neo Cortex Try it again.

*(Reaction)*

Zac I was thinking about his big teeth.

Neo Cortex And again.

*(Neo Helper2 and Neo Helper1- no reaction)*

Zac I was thinking about my test.

Neo Cortex Oops... try thinking about a tyrannosaurus again.

*(Reaction)*

You see, and as long as you are excited about something, neurons in your brain fire and wire in this way.

It's truly amazing.

Dinosaur! *(fire)*

Zac I think I'm starting to understand?

Neo Helper 2 Brilliant! Maybe we should explain it again but in another way? For those of us who learn better through music.

Neo Helper 1 Boots and cats.

Zac Like the templates? Boots and cats?

Neo Helper 1 Yes. Boots and cats *(starts to beat box, Zac joins in)*

Neo Helper 2 Songs are a great way to help us remember.



Glutamate activates  
 Dopamine keeps it keen  
 Nerve cells ready, they begin their map  
 Synapses formed, there's a gap  
 Information  
 Firing through  
 A Template formed  
 Unique to you  
 Information firing through  
 Information firing through

*(Repeat three times)*

Zac                    So Neurons start firing every time I learn, as long as I am excited about it.

                          So is there a set of Neurons that has the answer to my test on it

Neo Cortex            It depends

Neo Helper 1        on how much of an emotional reaction you have to learning

Zac I get a strong emotional reaction to that word: test. My temperature goes up, and I start seeing Rebecca in my mind, laughing (*keeps talking*)

(Amygdala carries sign – **I hate tests**)

Neo Helper 1 We know.

Zac I feel so sick every time I think about it. It’s really strange. Can you help me Neo. Can I call you Neo?

Neo Cortex Of course

Zac So Neo, if I have all these templates, where do I recall them, how do I get them to work? I need to go there, maybe if I get to where I remember the templates, I can recall the ones I need for the test.

Can you help me?

Neo Cortex Let me show you the Hippocampus.

Hippocampus You called...

Neo Cortex He needs help to remember

Hippocampus I can do that

**Voice over Happy Birthday to you, Happy Birthday to you**

Neo Cortex Not that kind of memory, he’s looking for the answers to the test

Hippocampus I might be able to help him remember, I can summon the memories through me. Let me touch his forehead.



There once was a boy named Zac,  
Who found one day he could quack,  
Next day from his beak,  
He found he could speak,  
But all he could say was quack, quack.



Zac How do you know that? My Mum made that up for me when I was younger.

Hippocampus I connect with other areas of your brain, I can find your most distant memories.

Neo He wants to know about the test

Hippocampus Are you sure?

*(Amygdala with a sign saying – **Why won't anyone listen to me?**)*

Zac I just want the answers! I feel ill every time I think about it

Hippocampus Place your hands on this...

*(They give him his homework book)*

Hippocampus Rebecca took some work out of your tray and her and her friend stood laughing at it.

### **Voice Over Zackary the no brain, Zackary the no brain**

Hippocampus Instead of writing about the trip to the airport you threw a paper aeroplane to make everyone laugh.

### **(Sound of laughing on tape)**

Hippocampus You wrote a poem about a dinosaur.

### **(They crack the memory. An image appears)**

Hippocampus But the person covering for your teacher that day told you

**Voice over It's very nice you like dinosaurs, but that's not a poem. It's a list.**

### **(Sound of laughing)**

**Voice over Zackary the no brain**

**Voice Why didn't you listen to the instructions?**

**Mum Voice You just need to focus. How will you ever learn anything if you don't pay attention?**

### **(Sound of laughing)**

Zac Stop it, none of this is helping me. I don't want to remember those things. All I want is the answers to my test, surely you have some other memories...

*(Helper 2 waves a small flag)*

Zac I remember that flag. It went on top of the den I made with Mark. My Mum gave me some old blankets to make it with.



*(Into the den image)*

Neo Helper2      This roof will last a hundred years.



Zac                      I remember!

Hippocampus        And your dad said – I told you we’d get him back.

*(The image breaks apart)*

Zac                      Is this my bike?

*(They form the bike image)*

Zac                      My Mum and Dad got me a BMX bike for my birthday.

Zac                      This is cool! Let’s stay here forever.

*(The den image breaks up - Mark shows him Ted. They break the memory. Take the image.)*

Hippocampus        You lost Ted on the boat, but he came back to you. The lady ran after you onto the dock and said -

Neo Helper2        *(as the lady)* Is this yours?

Dad                      You’re doing brilliantly Zac.



Zac I was doing really well, but when my dad let go, I fell. And bumped my nose. But my dad said -

Dad Don't worry, get up and we'll try again.

*(Back onto the bike)*

Zac Thanks Dad.

*(Image breaks up – we see a toy fire engine roll across the floor)*

Hippocampus Do you remember when the fire brigade came for your friend 'cause his head got stuck in the railings?

*(They crack the memory. Into the image)*

Zac I'll never forget the look on Mark's face.

*(Image breaks apart)*

Helper 2 Or when you were poorly and needed a hot water bottle.

Hippocampus Or when your goldfish died and you had to flush it down the toilet.

Mark Or when your best friend moved away, and you knew you'd never see them again.

Zac So how come I can remember all these things, but I can't remember about the test.

Neo Cortex Because the strongest memories have an emotional attachment whether happy, or sad, or just about something that excites you.

Zac So if I want to remember things I have to find a way to make them exciting, like when I look at the football league tables with my dad and we try to add up all the goals that happened in that week.

Hippocampus I love it when you do that, it helps me. Just remember, the more you feel, the better you learn and the more you recall.

*(Hippocampus exits)*

Zac But I'm always excited, over excited my mum says. My mum says I'm like a bumblebee, always buzzing around. I've got so much energy *(ad libs about being excited)*

Where are we?

Neo Cortex We're walking through your brain stem.

Brainstem 1 Heart beat's rising.

Brainstem 2 Loud noises coming in from outside.

Neo Cortex You're definitely not in a state for sleeping.

Brainstem 2 Seems to be shifting about all over the place.

Brainstem 1 We need to regulate his heartbeat, it's still rising.

Neo Cortex            You're getting anxious about the test.

Brainstem 1           He's getting a bit hot.

Brainstem 2           We need to make him sweat for a while, cool him down.

Brainstem 1           I'm working on his breathing, trying to regulate it

Brainstem 2           Oh dear, he's still really anxious.

Neo Cortex            Exercise him, get him to walk.

Brainstem 2           Physical stuff?

Brainstem 1           Physical stuff? The brain stem doesn't do physical stuff.



Neo Cortex            But I know someone who does. I can't wait to introduce you to Cerebellum. She'll know what to do, it's what she does best. You'll like Cerebellum - she does nothing but sing your praises.

Funfair Man           Roll up, roll up, welcome to the only area of your brain where we try to explain how we work in the form of a funfair.

Neo Cortex

Here, they have tests for you that will assess your co-ordination, examine your strength and give us evidence of your balance.

Funfair Man

And for your entertainment and pleasure I would like to introduce you to Miss Cerebellum.

Cerebellum

Welcome to the Cerebellum fun fair, I am Miss Cerebellum and I play a major role in your motor functions, your ability to move, coordinate and balance. But I'm also involved in making all areas of your brain work at their best.

Funfair Man

If you'd like to step up here we can get an idea of your precision and strength. All you need to do is hit the block using this hammer and see if you've got the strength to ring the bell at the top of the tower.

Neo Cortex

Well done Zac, that's well above average strength for your age.

Funfair Man

Test your coordination by getting one of my hoops over the block in front of you.

*(Zac does it in one)*

Neo Cortex

Well done, you really do have an eye for this sort of thing.

Cerebellum

And now for your final test – Balance.

*(Neo Cortex hands Zac the stick and they start balancing on a tightrope with Zac in the lead when they turn around Neo Cortex leads)*



Neo Cortex            You're very good at that.  
Funfair Man            You're very good at all of these things.  
Cerebellum            We're very proud to be in your brain.

*(Go into close up puppets)*

Cerebellum            Every time you want to move, I am there at the bottom of your brain helping your coordination, your precision your timing.  
When you are walking.  
When you play football.  
Score a goal and cheer.  
When you have your swimming lessons.  
As you climb that tree in the garden.  
And even when you eat.

*(Start to move away from Zac so he takes control of the movements)*



Cerebellum            You are an amazing brain to be inside,  
You push me to my limits.  
Within your brain I can work at my best  
Acrobatics, cartwheels, precision and dexterity, you are never still.



*(Repeated by Neo Cortex and Funfair man as if in a round)*

If I wasn't here...

*(Zac drops to the floor)*

Zac                      So if you weren't there I wouldn't be able to move like I do?

Cerebellum            Technically you'd struggle with talking as well, but I didn't stop that bit of you just now.

Zac                      Wow so you must be the most important part of my brain, I am so pleased to meet you.

Cerebellum            Thank you, we would like to be thought of as the most important part of the brain.

Funfair Man           We think we're pretty important – our name, Cerebellum, in Latin means little brain.  
However some people don't notice us or use us to our full potential, like you do.

Cerebellum            We like to think of ourselves as the little hidden treasure at the bottom of your brain, working away, keeping you moving, making everything work at its best, without anyone knowing we're here.

Zac                      I won't forget you, at least you make me aware of all the things I am good at.

Cerebellum            Good, I wouldn't have it any other way.

Funfair Man           It's important you see your strengths, realise your potential. You really are incredible when it comes to being physical, not everyone has that. You are a kinaesthetic learner, I'm surprised no one has told you this, you really have a talent.

*(Funfair Man leaves – Neo Cortex sits in his area)*

Zac                      He said I have a talent, did you hear that Neo, I have a talent. I am physical, a kinaesthetic learner. Perhaps if it was a test on cartwheels I'd do really well...

*(Amygdala and Temporal Lobe come out)*

Zac                      Why does my brain keep coming back to the test?

Zac and Neo           I feel sick

Zac                      I know I'm going to fail... Rebecca's going to laugh at me, the teacher's going to tell me off for not trying hard enough and my mum's going to be disappointed.

Zac                      Neo you've got to help me

Neo Cortex

I'm trying to block it out, but I can't, the emotional reaction you are having is too strong. I suggest you just go home and I'll try to deal with what's going on back here.

*(Neo trying to get Zac to go home and hide the fight between Amygdala and Temporal Lobe)*



Zac  
Neo Cortex

What is going on?  
Nothing, it's all fine, just go back home and I am sure I can calm things down, I just need a moment. I can't think straight. But don't worry. Everything's fine.

Zac

You don't seem fine.  
What's going on?  
Who are they?

Neo Cortex

Tell me!  
Okay, I am going to introduce you to someone from your emotional brain.





*(Neo introduces Zac to Temporal Lobe but tries to keep Amygdala hidden, which is hard as she's still punching him.)*

This is your Temporal Lobe, it's the main storehouse for lots of your feelings, and as you can see it's not having a very good day. In fact it's having such a bad day its stopping me from being able to think.

Now if you could just try and suppress some of those horrible feeling you have the test tomorrow, try thinking of a brick wall perhaps, or a dinosaur, raghhh, maybe then we could get things back to normal and I could have time to think. Please go home now. It will be alright.

Zac I'm not going anywhere until you tell me who she is..  
Neo Cortex You really don't want to... That's your Amygdala, she came up from the swamp. She's your ego. The place where all your desires are kept. You really don't want to go there. She's not worth listening to.

*(Amygdala starts to attack Neo Cortex and keeps attacking Temporal Lobe – a slow motion fight breaks out. Zac looks at them and shrugs – he walks to the audience and sits down.)*

Zac Do any of you have this trouble? Its like my thinking brain is having a battle with my emotional brain and my Amygdala.

It's like I am thinking one thing and my emotions are feeling me something else?

I can't let them keep going like this, my heads hurts, I have to make a plan, templates firing, okay, I know what I'm going to do.

*(Zac walks over to Amygdala and starts to talk to her – all her replies are on pieces of card)*

Zac Excuse me! Have you got a minute? I wanted to find out if you are okay, you look so cross

Amygdala **I'm scared about the test**

Zac I know, I'm scared too

Amygdala **I know I'm going to Fail**





Zac  
Amygdala  
Zac  
Amygdala  
Zac

I don't want to fail either, but I don't know what I can do.

**I'm rubbish at tests**

Me too.

**Hit it**

Is that what you were doing to my Temporal Lobe. I felt so anxious inside when you were doing that.

**Take it**

I suppose I could run into school, grab the test paper and rip it up.

**Run from it**

Or I could not go into school, pretend I was sick.

**I'm scared about the test**

I know, I know. Look hang on a minute, I want you to meet someone. Neo get up.

I'm really disappointed in you.

I thought you were better than that.

You're supposed to be the thinking part of my brain. Have you ever stopped for a moment and thought about what she wants. Have you even read what she's saying?

Amygdala  
Zac  
Amygdala  
Zac  
Amygdala  
Zac

Neo I'm a bit short sighted?  
Zac I know you are. Now put on your glasses and read her signs.

*(Amygdala holds up a sign saying **I'm really worried about the test.** Neo reads it)*

Neo Oh you're really worried about the test? Why didn't you say?  
Amygdala **Why won't anyone listen to me?**

Zac So if you listened to the Amygdala, maybe you could sort it out.

*(He gets Amygdala and Neo to hold hands,)*



Zac You are connected you know. And you, Temporal Lobe. You're a part of this as well. Now that's much better. So all three of you just need to remember, you are connected.

*(Temporal Lobe puts his arms around Amygdala and Neo Cortex, Amygdala and Temporal Lobe start to go)*

Neo Cortex Oh! That's feeling a lot better.  
I'm starting to think a bit straighter.  
I can just start to put a few thoughts together.

Neo Helper 2 Information's coming in.

Neo Helper 1 Look here's a piece of information about the test.

Neo Helper 2 He had been listening to some of it in class.

Neo It's beginning to make a bit more sense.

Neo Helper 1 There are templates coming in from everywhere, neurons are flashing away.

Neo Helper 2      We seem to be retrieving an awful lot of information.

Neo Cortex      Good. This is the first time I've really had a chance to work on a solution and it feels great. We feel so relaxed.

*(Zac watches all this and thinks for a moment)*

Zac      I think what I'm learning is that all the parts of the brain are important.  
Reptilian.  
Emotional.  
And Neo Cortex.



*(The three of them make the brain with their hands as Zac speaks)*

Zac      They're all connected, and if we don't listen to our emotions we'll never learn anything.

I'm ready to go home now.

Neo      What about your test?

Zac      I'll do my best, if Rebecca laughs at me that's her problem, I know I'm good at something.

*(Zac begins to head back to the Bedroom, and the others clear)*

**Neo Cortex** As long as you are excited about something your Neurons start firing and wiring. It truly is an amazing brain.  
**Hippocampus** Just remember, the more you feel, the more you learn and the more you recall  
**Cerebellum** You really are an amazing brain to be inside



*(Zac walks back to his bed and is just about to get in when he sees a sign on it. He holds it up in the air for the audience to see, the sign reads **Don't forget about me.**)*

*(A shadow of a tree lights up)*

THE END