


**Teaching with Brain Plasticity InMind**  
 Josh MacNeill, MEd



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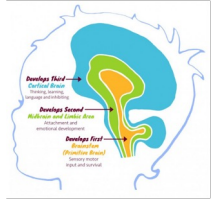
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## Brain Plasticity






-  The brain's ability to positively change throughout life.
-  Until recently it was thought that the only change the brain could make was decline. (After initial brain growth)
-  Significant finding as it offers hope to many people

Image or information courtesy of Beacon House Therapeutic Services & Trauma Team | 2022 | www.beaconhouse.org.uk

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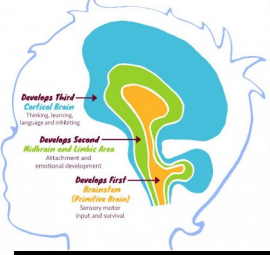
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## Brain Basics

The brain develops and operates from the bottom up.



- Develops Third** — **Cerebral Brain**  
Thinking, learning, language and thinking
- Develops Second** — **Midbrain and Limbic Area**  
Attachment and emotional development
- Develops First** — **Brainstem (Primitive Brain)**  
Sensory motor input and survival

Image or information courtesy of Beacon House Therapeutic Services & Trauma Team | 2022 | www.beaconhouse.org.uk

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**Procedural/  
Implicit  
Memory**

*A procedure or group of automatic actions occurring outside our focused attention, in which words are generally not required*

**Physical:**

- Riding a Bike
- Walking
- Swimming

**Emotional:**

- Anxiety
- Anger
- Sadness

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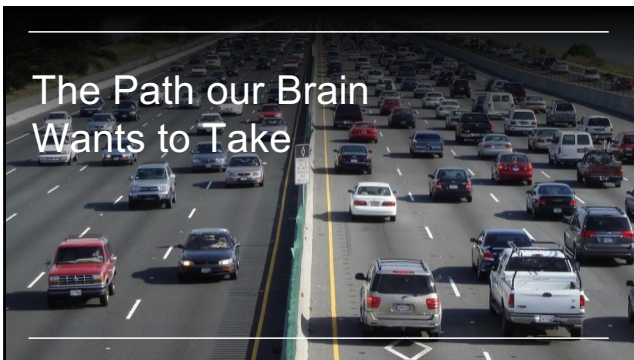
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## Relationships and Stress

Fire can warm or consume, water can quench or drown, wind can caress or cut. And so it is with human relationships: we can both create and destroy, nurture and terrorize, traumatize and heal each other.  
-Bruce Perry

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Positive  
Relational  
Experiences

Reduces stress in the child

Improves neural-development

Improves self-worth

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## Brain Plasticity and Self-Care

*There is a reciprocal relationship between teacher-self-care, and creating an environment that promotes positive brain change.*

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## What are Mirror Neurons?

Neurons that respond the same way when either performing or viewing something someone else is doing.

Neurons that allow us to feel empathy.

Neurons that allow us to re-enact actions or qualities observed in others.



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## Co-regulation and Mirror Neurons



- People will mirror a leader's level of calm.
- Important for helping to regulate dysregulated students.
- Important for maintaining regulation in all people.

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## Positivity is a Solution For All

### Teacher

- See students in a different light
- Releases calming chemicals in the brain
- Increase likelihood for positive student behavior

### Students

- Feel seen and cared for by teacher
- See environment as safe environment
- Release of calming chemicals in their own brain

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How can you make someone's day tomorrow?

*Try this soon, repeat often.*

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## Questions/ Comments

Thanks for having me!  
I would love to connect with you!  
Contact me at: [Josh@InMindServices.com](mailto:Josh@InMindServices.com)  
[www.inmindservices.com](http://www.inmindservices.com)



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