

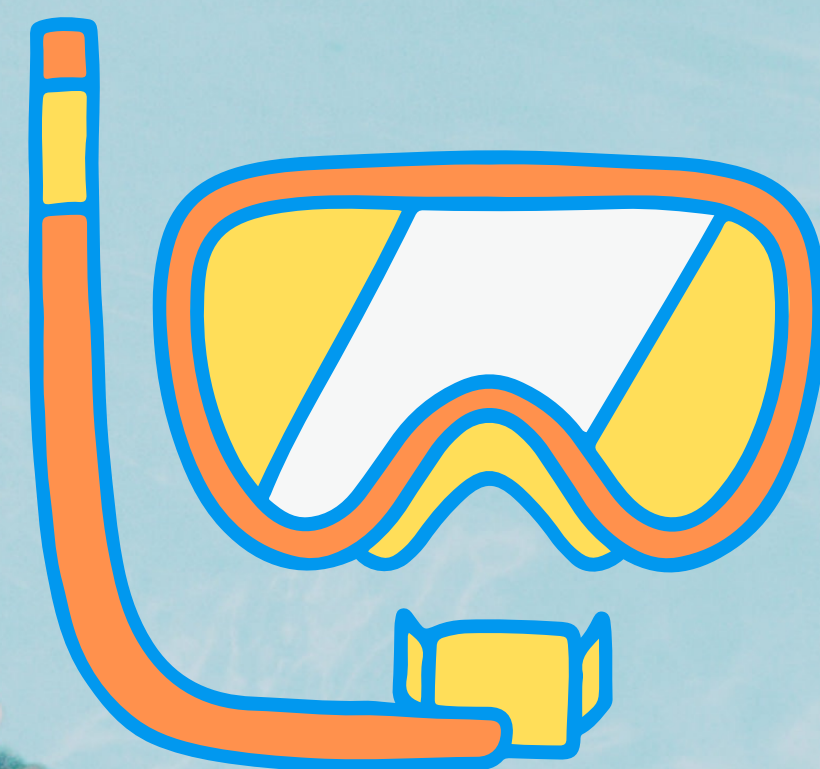
# *TAKING A DIVE* *Into Development*

Cortex

Limbic

Midbrain

Brain Stem



our brains  
develop from  
the bottom up

Due to things like ACE's (Adverse Childhood Experiences), or our specific trauma in childhood, we can experience developmental delays in different areas of the brain which can uniquely, and severely impact our lives, and those around us, even into adulthood.

this helps provide  
context for individual  
behaviors, responses,  
learning, etc.



*Move on ACE's?*



# functions & responsibilities...

the **Brain Stem** controls all vital functions, including eating, breathing, eye movement, heartbeat, and swallowing – there can be no life without it.

The **Midbrain** is a tiny, but mighty, structure at the topmost part of the brainstem, which plays a crucial role in processing information related to hearing, vision, movement, pain, sleep, and arousal.

The **Limbic System** is involved in our behavioral and emotional responses. It is especially engaged in stress responses and behaviors we need for survival, such as feeding, reproduction and caring for our young, and fight or flight responses.

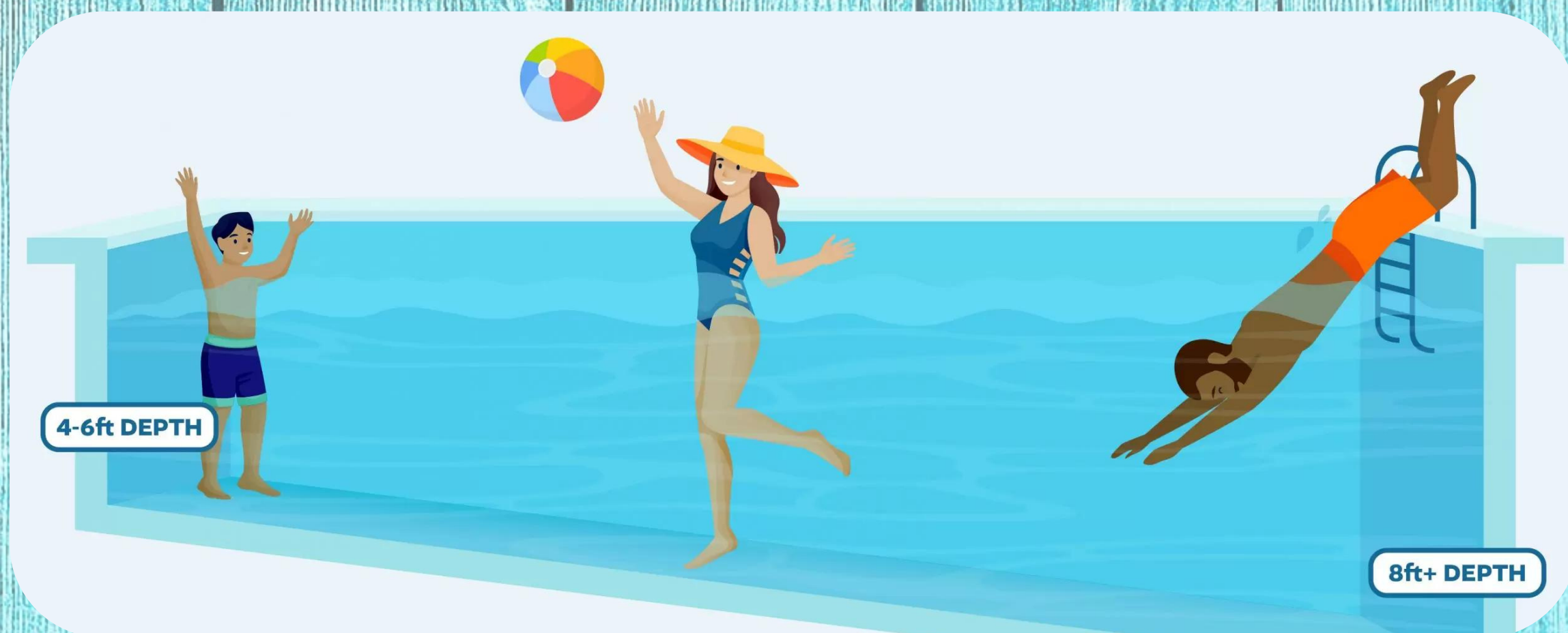
The **Cerebral Cortex** is associated with higher level processes, such as consciousness, thought, emotion, reasoning, language, and memory.



## WAIT... HOW DOES ALL THIS RELATE?



# here's how...



In the pool on the left, we can see a short end and a deep end. A child needs to be equipped with certain tools and skills before trying to enter the deep end. If a child tries to swim in water that is too deep for their skillset, they make risk their safety.

Apply this same logic to brain development and we gain a better understanding for how trauma can impact us. Adverse Childhood Experiences (ACEs) can delay development in areas of the brain, leading us to feel overwhelmed in water that can get too deep before we're ready (at no fault of our own).

## why do we need to care about this?

Our students need us - many of whom are not equipped when stepping into the classroom. The more we can understand about the states and stages of the developing mind, the better we can serve and support our youth

