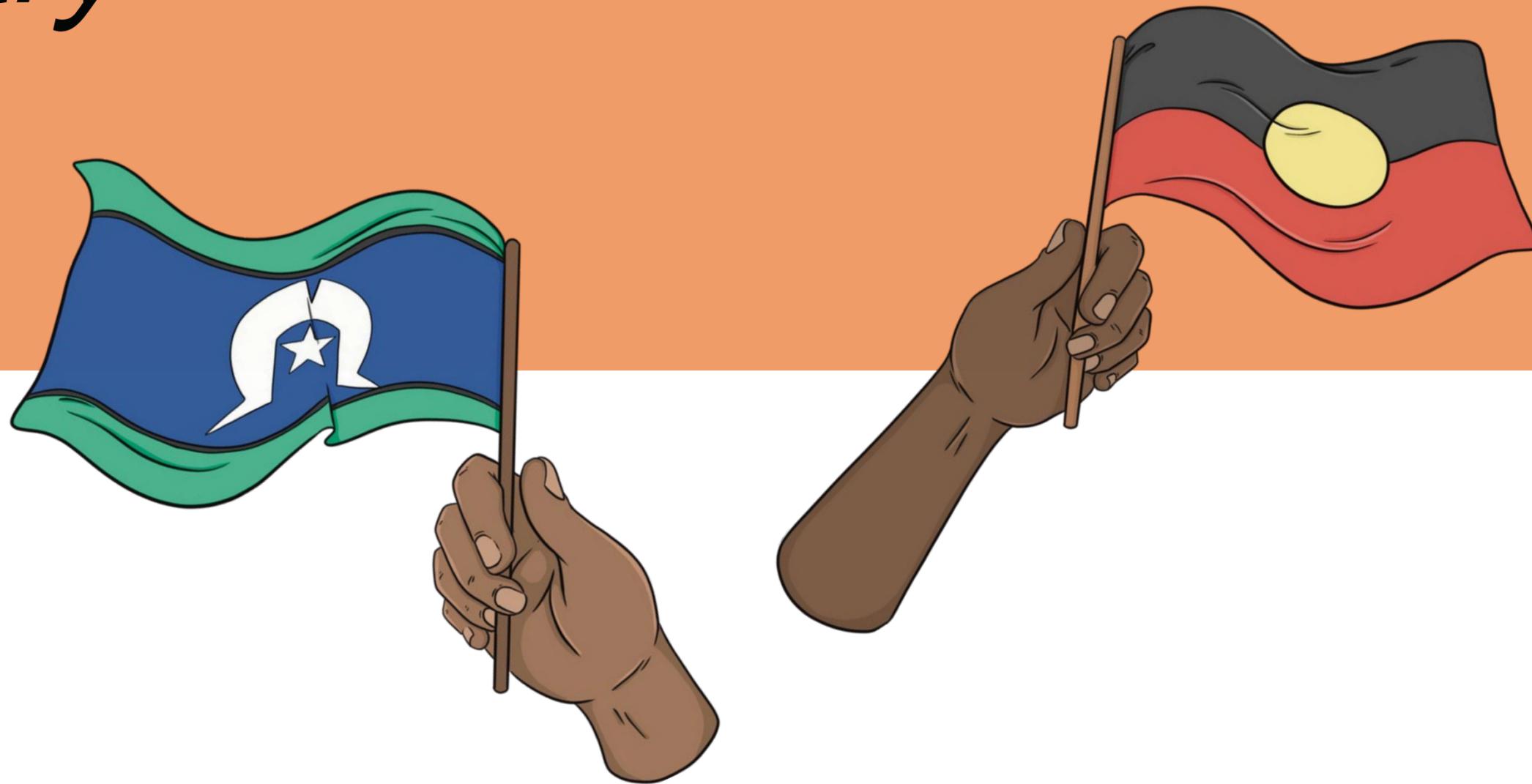


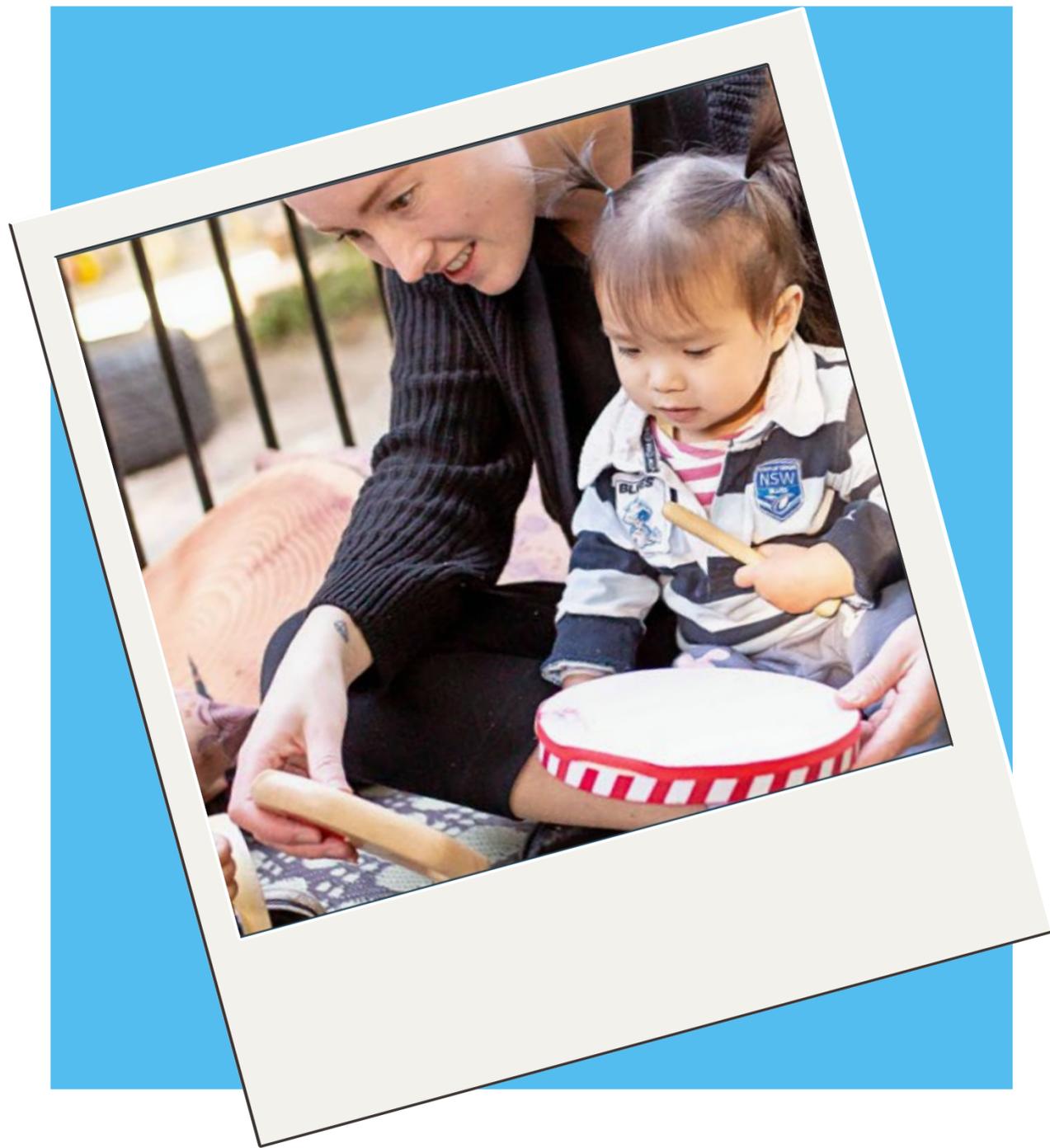
*The Power of Play:
Foundations for the
brain, body and bond.*



Emma Rattenbury

Acknowledgement of Country





Today's Presentation

PART I - PLAY & THE BRAIN

PART II - PLAY & CIRCLE OF SECURITY

PART III - FOSTERING CONNECTIONS

What is play and what does it offer?

“Play is a neural exercise that facilitates learning”

“Play offers children opportunities to exercise features of our nervous system that fosters learning and social behaviour”

(Porges, 2018).

“Play is ‘undertaken voluntarily; that is freely for the sake of their own pleasure, reward and satisfaction.’”

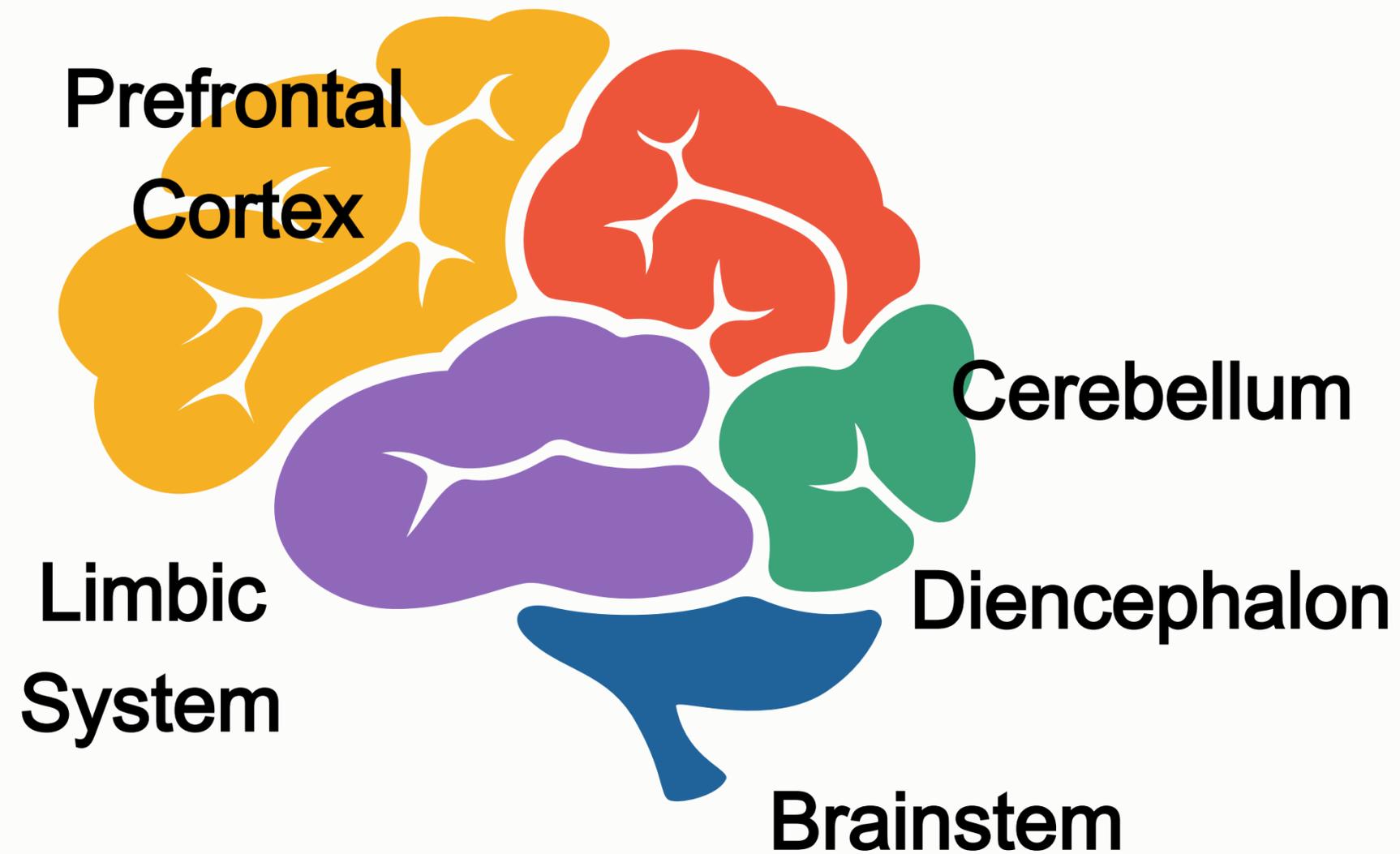
(Schore, 2019).





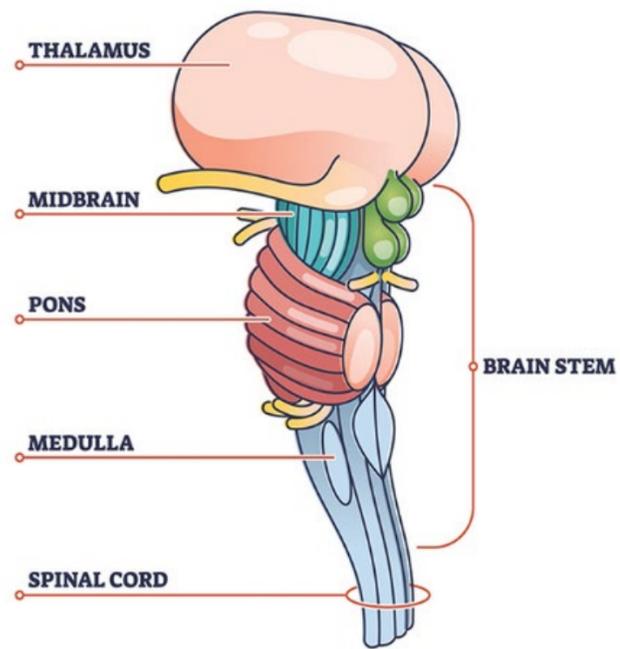
“Play is a rehearsal for the challenges and ambiguities of life”
(Brown, 1994).

The Brain...

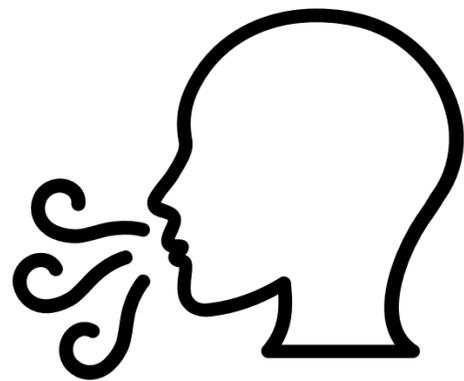


Just like a tower made from blocks, in order for the higher structures to work, we need to ensure the foundations are strong.

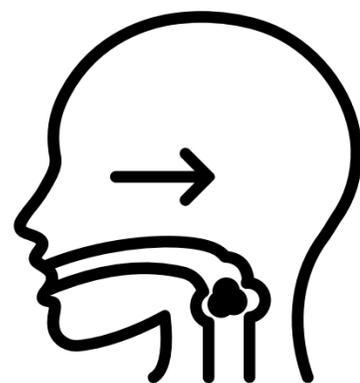
The Brainstem - Survival & Regulation



When babies are born this part of the brain is highly sensitive to the environment and needs significant care and nurturing.



Breathing

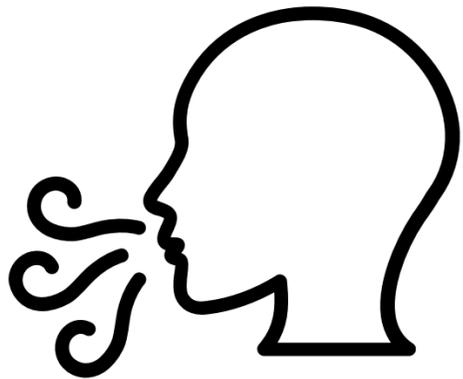


Swallowing



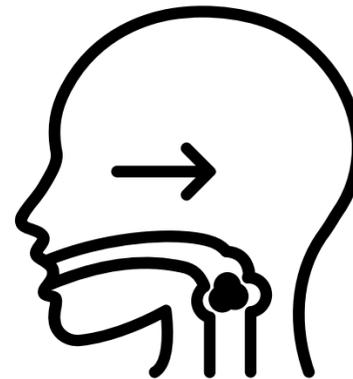
Heartbeat

The Brainstem - Survival & Regulation



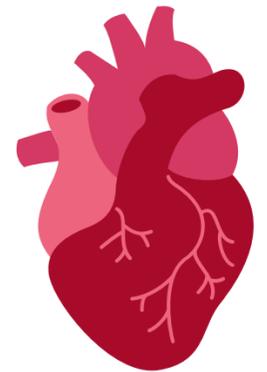
Breathing

- Bubble blowing
- Yoga
- Feather games



Swallowing

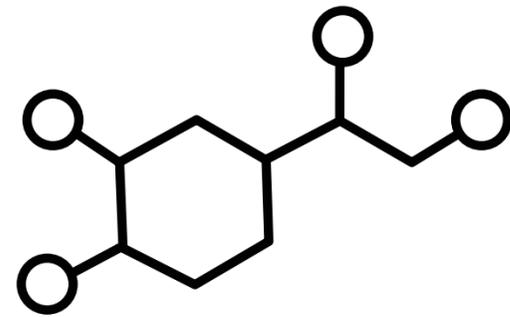
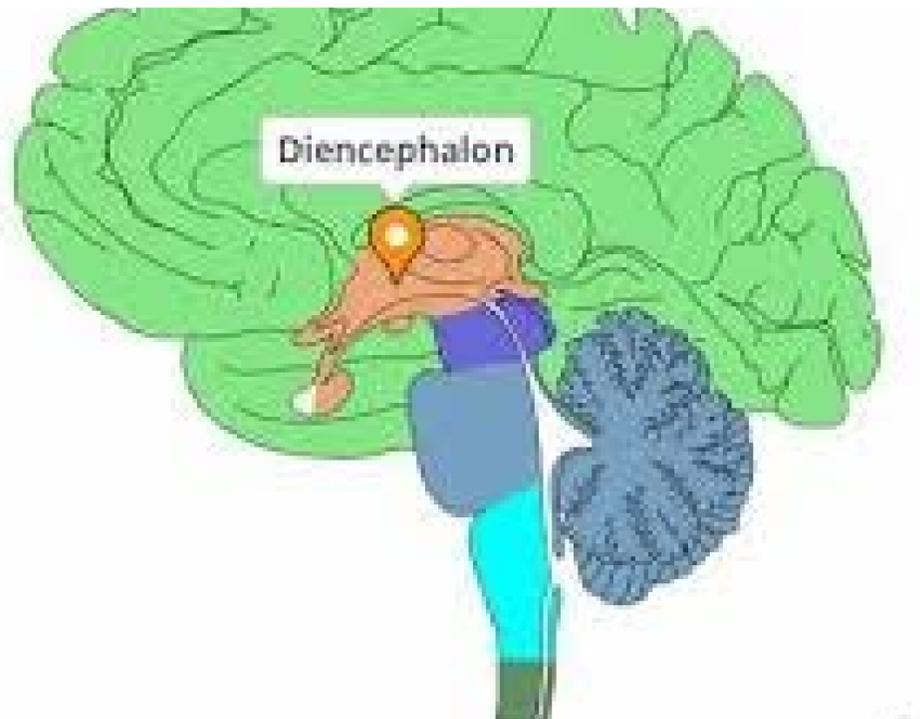
- Singing
- Straw games
- Chanting



Heartbeat

- Drumming
- Rough & Tumble play

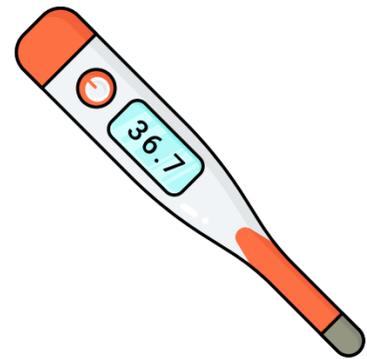
The Diencephalon



Hormone release

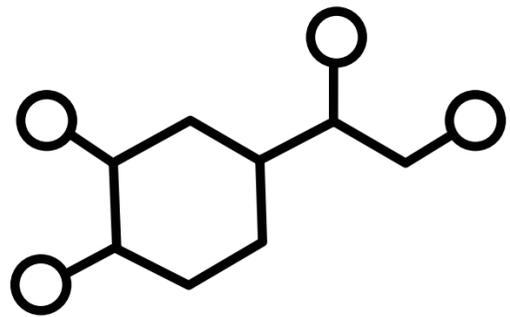


Control centre for
sensory processing



Temperature
regulation

The Diencephalon



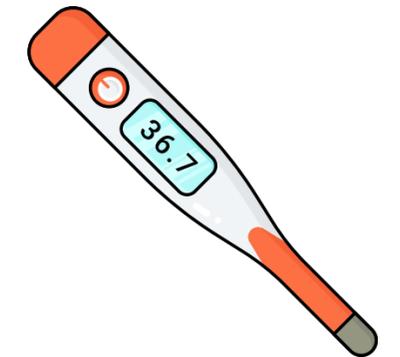
Hormone release

- Nurture role play
- Attachment play
- Group singing



Control centre for sensory processing

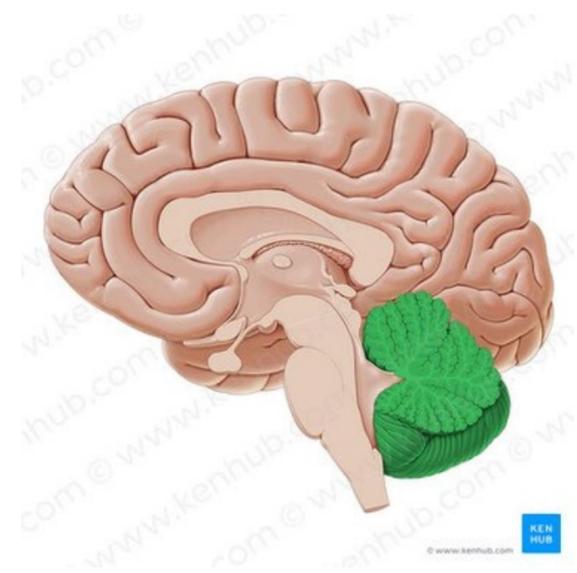
- Sensory play
- Messy play
- Vestibular processing



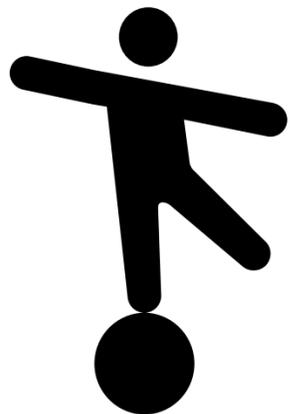
Temperature regulation

- Outdoor play across the seasons
- Water play
- Active play + mindfulness

The Cerebellum



Latin for “little brain” the cerebellum experiences significant growth in the first 18 months



Balance + Posture

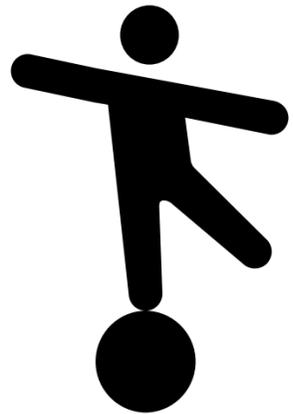


Movement



Mental functions

The Cerebellum



Balance + Posture

- Balance beams
- Yoga animal poses
- Hopscotch



Movement

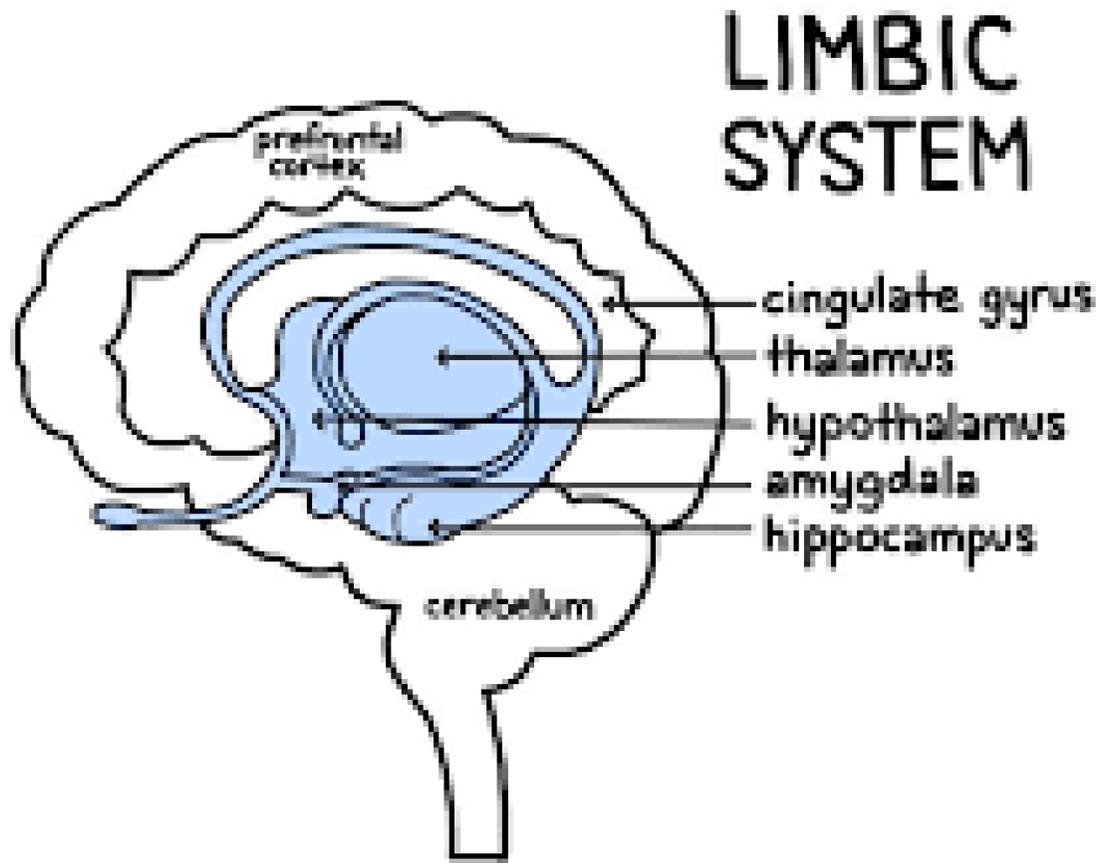
- Musical statues
- Obstacle courses
- Floor is lava



Mental functions

- Clapping/rhythm games
- Simon Says, Went to the shop
- Construction

The Limbic System



Motivation



Memory



Meaning-making

The Limbic System



Motivation

- Cooking
- Guess that scent
- Lunch time discussions



Memory

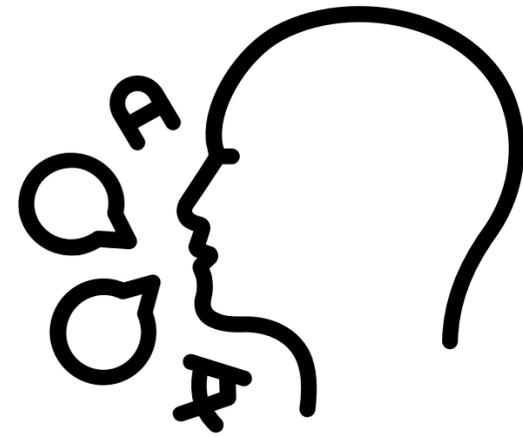
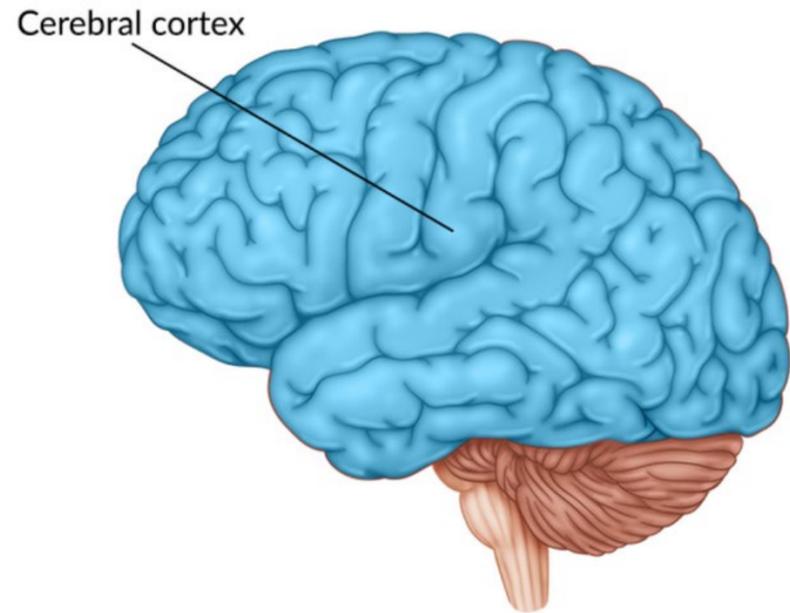
- Story telling recall
- Memory match
- Treasure hunts



Meaning - making

- Role play
- Expressive arts
- Sportscasting

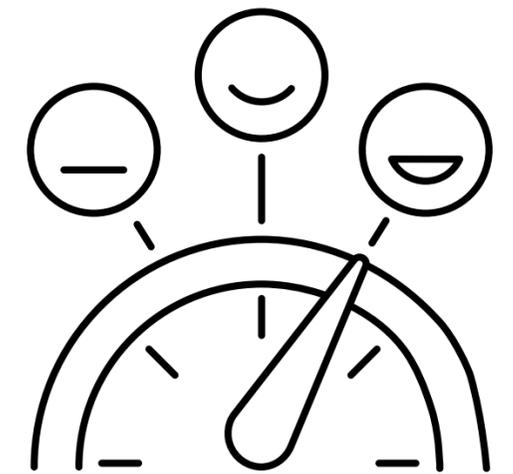
The prefrontal cortex



Language

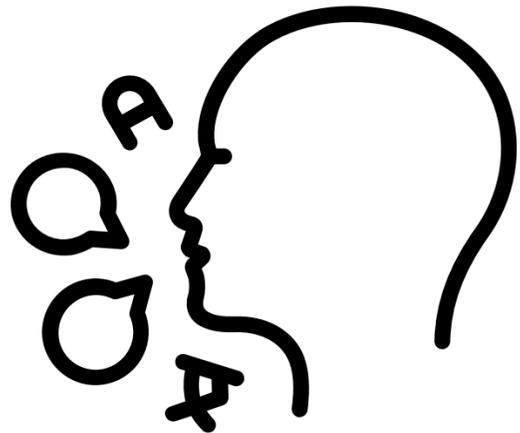


Executive
Functioning



Self regulation

The prefrontal cortex



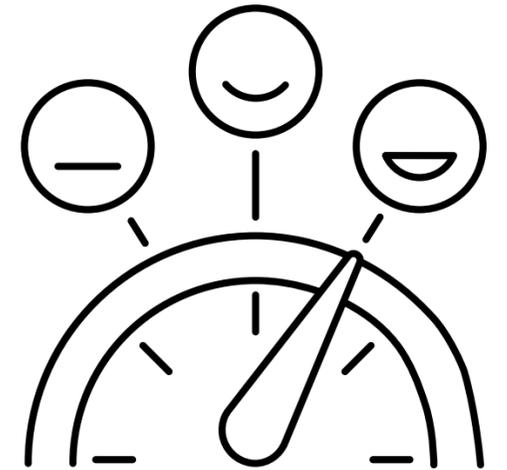
Language

- Puppets
- Pass the story
- Rhyming or sound games



**Executive
Functioning**

- Board games
- Building challenges
- Scavenger hunts



Self regulation

- Sensory items
- Animal walks
- Mirror play

Brain play stations

- In groups of 4, choose a toy resource and brainstorm ways that item can support the various parts of brain + body development.

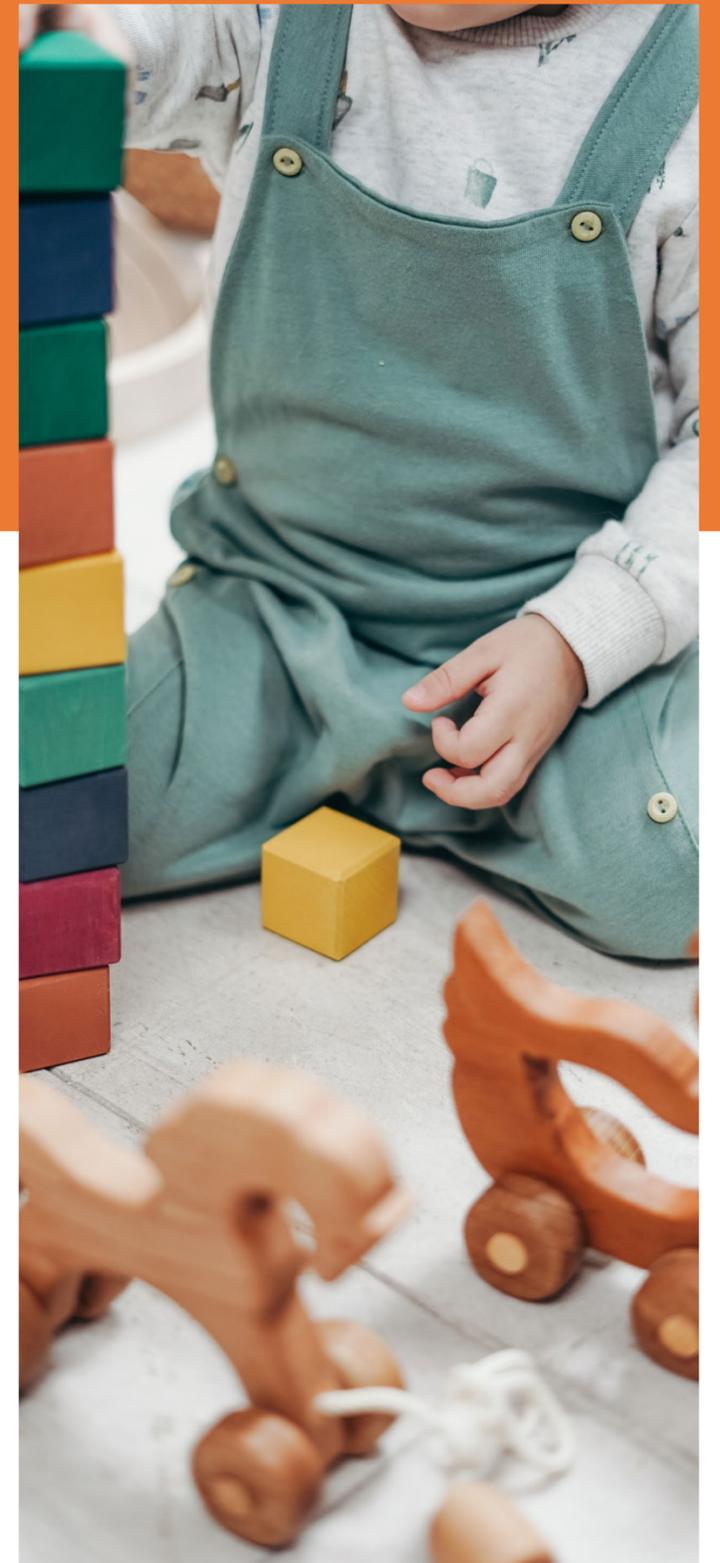


- Brainstem - safety
- Diencephalon - sensory
- Cerebellum - movement
- The Limbic System - memory
- The prefrontal cortex - planning

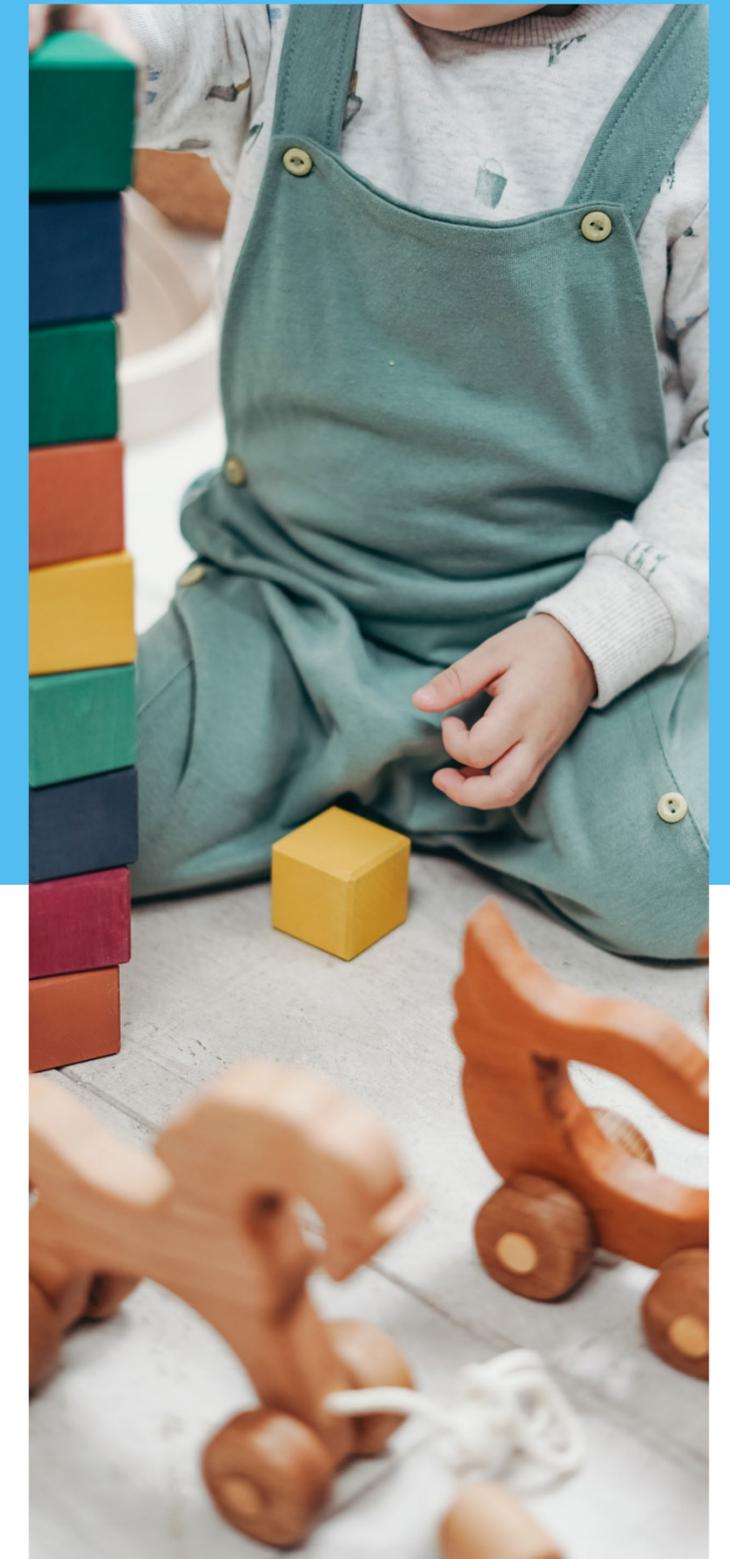
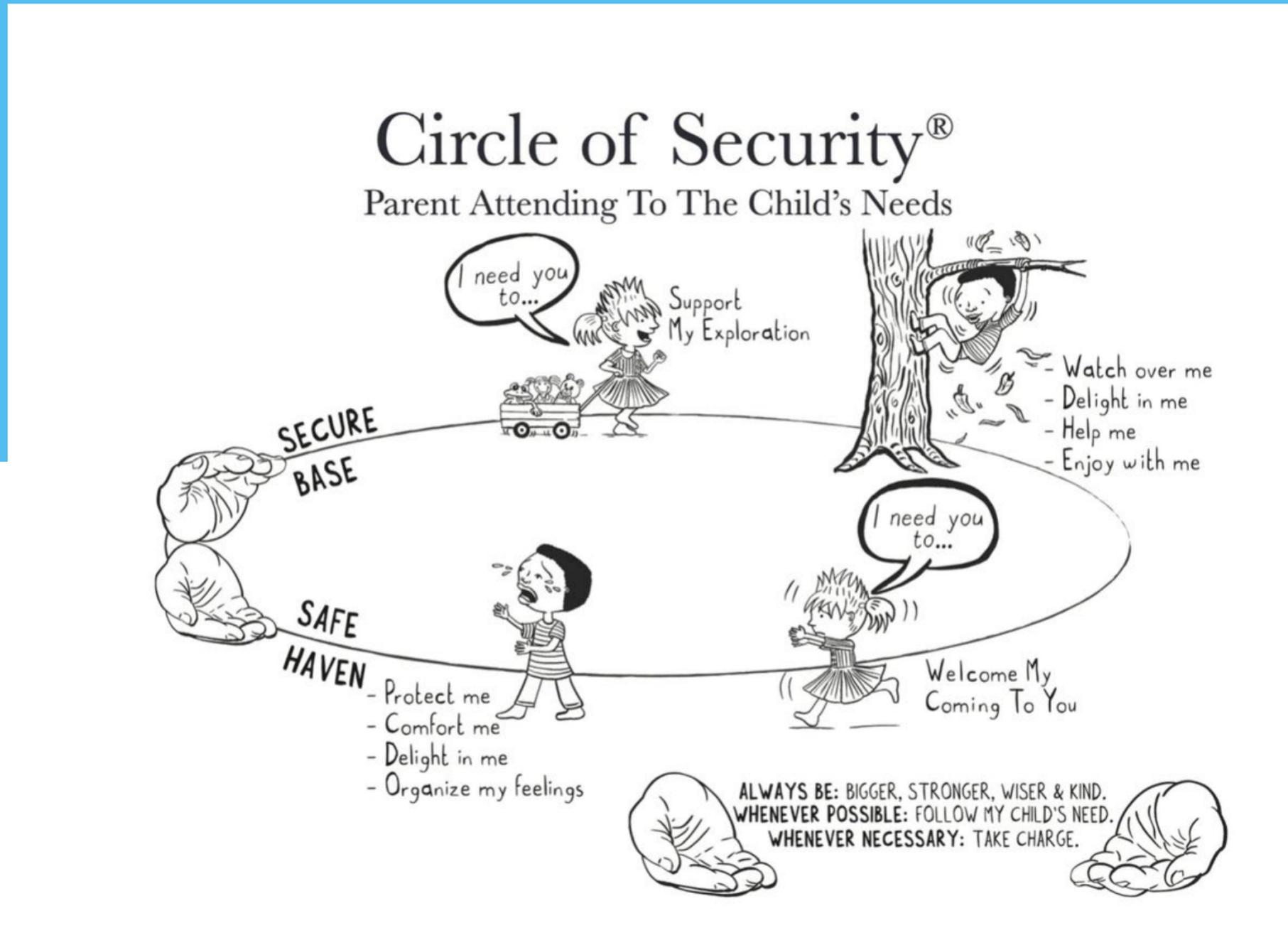
Play within Circle of Security

When a child's "needs are met in an integrated, play-based fashion, they work together to build neurologic subroutines and abilities in the child for rhythms of soothing, co-regulation of emotion, thinking, behavior and partnership behavior, and eventual abilities for self-regulation and competence."

(Schaefer & Drewes, 2016).



Circle of Security Model



Watch Over Me

“...when infants feel calm, their natural curiosity about the world emerges and they want to use their caregiver as a secure base to explore.”



“Be present, notice what I’m doing and provide safe boundaries.”

In play:

- Quiet reassurance
- Show presence
- Stay close
- Be available

Delight In Me



“Delight is about the infant as they venture out and not about the parent’s pride in the infants accomplishing developmental goals that the caregiver has in mind.”

“Celebrate my discoveries, enjoy who I am.”

In play:

- Child-led
- Expressive arts
- Puppet play
- Sensory play



Help Me



“Ideally caregivers will help an infant or young child organise a task so that success is within the child’s developmental grasp while supporting the infant in struggling with what he or she is capable of doing.”

“Step in when needed, scaffold challenges.”

In play:

- Assisting in play
- Offering gentle prompts
- Role play
- Gentle demonstration

Comfort Me



“The caregiver needs to find a way to be with the infant’s feeling state while making it clear the distress is the infant’s and the caregiver is only resonating with the infant’s experience.”

“Be my safe place when I’m overwhelmed or hurt.”

In play:

- Building together
- Swinging and rocking
- Symbols of reassurance
- Modulating the pace of play



Organise My Feelings



“When the caregiver accepts, shares and names the infant’s feelings, emotional organisation and coregulation are made possible.”

“Help me name and manage emotions I can’t yet handle alone.”

In play:

- Naming emotions in play
- Guiding turn-taking
- Role play
- Expressive arts - collage



Reflective break



What helped you feel safe enough to explore or play as a child?

How might children show us when they feel secure or insecure in play?

What routines, rituals or relationships create a secure base in your setting?



Fostering playful connections



“Play is a way of being in relationship. It’s a mindset that prioritises understanding our child and embracing all of their individuality and uniqueness.”
(Bryson & Wisen-Vincent, 2025).





“Even if parents were aware and knowledgeable about play and its benefits, it does not translate into them being competent enough to play with their children effectively.”

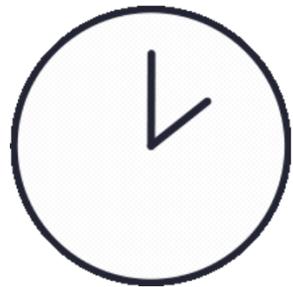
Dhas et al, 2022

Understanding barriers

- Time
- Stress
- Knowledge
- Culture

Understanding Barriers...

TIME/STRESS



“We don’t have enough time to play.”

- + Micro-moments of play
- + Playful routines
- + Habit stacking
- + Flexibility
- + Play is stress relief

CONFIDENCE



“I don’t know if I’m doing it right.”

- + Demonstration
- + Explicit ideas
- + Link play with their values

KNOWLEDGE



“I don’t know what to do in play”.

- + Strengths-based feedback
- + Normalise play awkwardness
- + Start with what they enjoy

Co-regulation in play

Taking children to the brink

“Through play, children are allowed to express their inner lives and learn the boundaries of their emotional expression.”
(Landreth & Bratton, p.21).



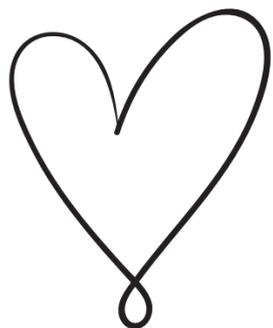
“Play within the context of safe, connected relationships is believed to activate aspects of the parasympathetic and sympathetic nervous systems that allow processing of real-life scenarios and struggles”
(Kestly, 2016).

Play tends to mirror other aspects of physical, cognitive, and social-emotional development. In this manner playing with a child can provide a window into their neural developmental functioning.
(Landreth & Bratton, 2022).

Supporting the adult-child dyad through play



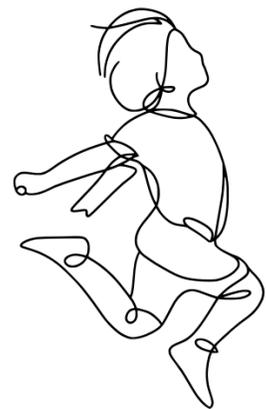
**DEVELOPMENT OF
POSITIVE EMOTIONS**



BROADENS ATTENTION



ROLE FLEXIBILITY



CREATES MUTUAL INSIGHT



Being attuned & responsive



Follow the child's
lead

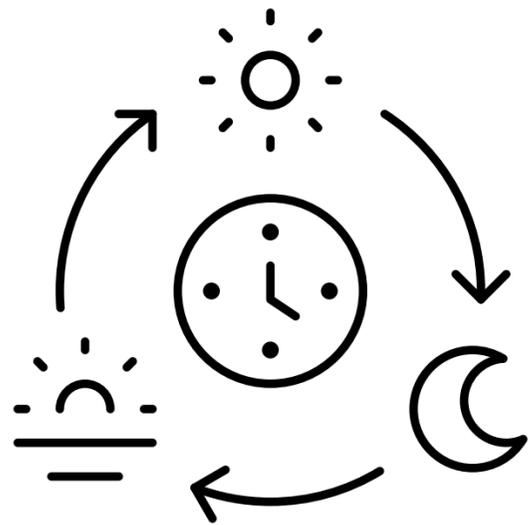


Notice small
invitations

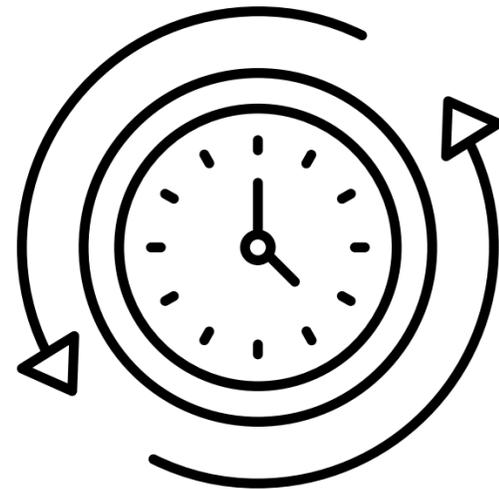


Mirror
delight

Everyday play



Daily play rituals



Micro-moments

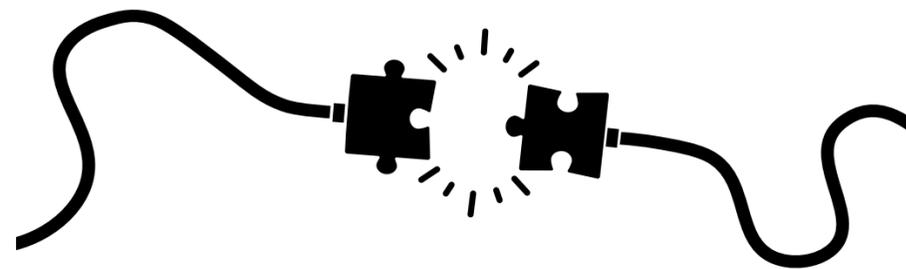


Playful routines

Permission to play



Play regulates adults



Connection not
perfection



Ask the experts

Group Activity



Playful routines

- In your groups choose a new resource and brainstorm playful ways this item could be included in the following routines and transitions:
 - Getting dressed
 - Mealtimes
 - Car trip
 - Bath
 - Bed



Wrap up...

Play activates and integrates the whole brain supporting regulation, emotion, language and thinking.

Children explore and learn best when they feel safe and supported by trusted adults.

Everyday playful moments build strong parent child bonds even in the middle of life's barriers.

“When children can’t talk about it - they usually can - and do play about it.”

(Payne Bryson & Wisen-Vincent, 2025).

