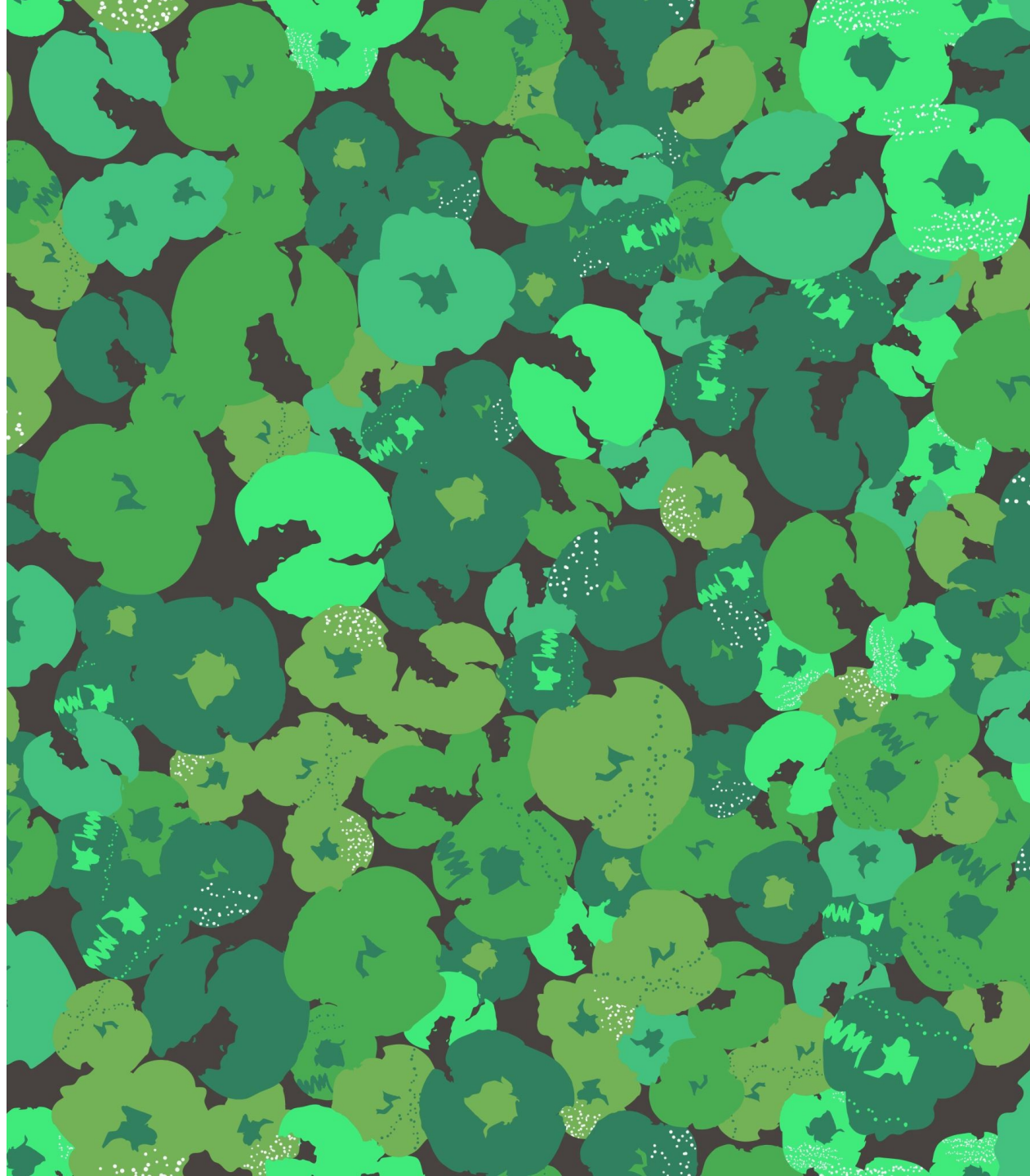


# Creating Healing Environments for Maltreated and Highly Stressed Children

Dr. Barbara Sorrels

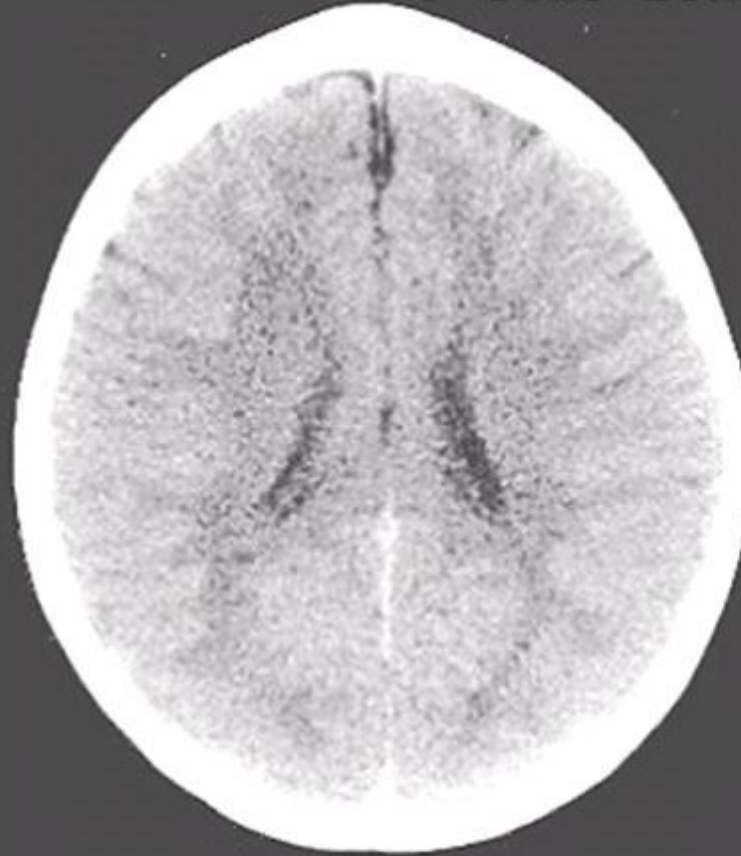
Connected Kids



# The impact of neglect

## Impact of Neglect

### 3-Year-Old Children



**Normal**



**Extreme Neglect**

© 1997 Bruce D. Perry, MD., Ph.D., ChildTrauma Academy

# Definition of Trauma

- Trauma is defined as “any event that undermines a child’s sense of physical or emotional safety or poses a threat to the safety of the child’s parents or caregivers (Groves, 2002).
- Complex developmental trauma is defined by Bessel van der Kolk (2005) as “the experiences of multiple, chronic and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature...and early life exposure.”

# What is the difference between severe stress and trauma?

- Changes the child's view of the world
- Changes the child's view of self
- Individuals develop coping strategies to deal with the internal pain
- Compromises capacity to experience joy, gratitude and pleasure

# The ACE Study

---

Physical neglect

---

Emotional abuse

---

Emotional neglect

---

Sexual abuse

---

Physical abuse

- Divorce or separation
- Incarcerated parent
- Mentally ill or depressed household member
- Substance abuse
- Domestic violence

# Beyond the ACE's

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Prenatal exposure to alcohol and drugs

---

Prematurity

---

Difficult birth

---

Early medical trauma

---

Post partum depression

---

Deployment

- Surrogacy
- Witnessing violence
- Catastrophic injury
- Immigration
- Adoption/foster care
- Racial Discrimination
- Relational Poverty

# Trauma is a Multi-System Failure



Brain Development



Attachment



Sensory processing



Self Regulation

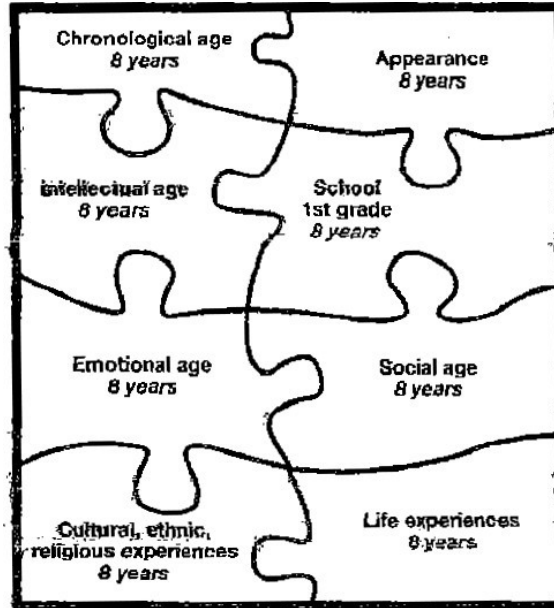


Social Skills

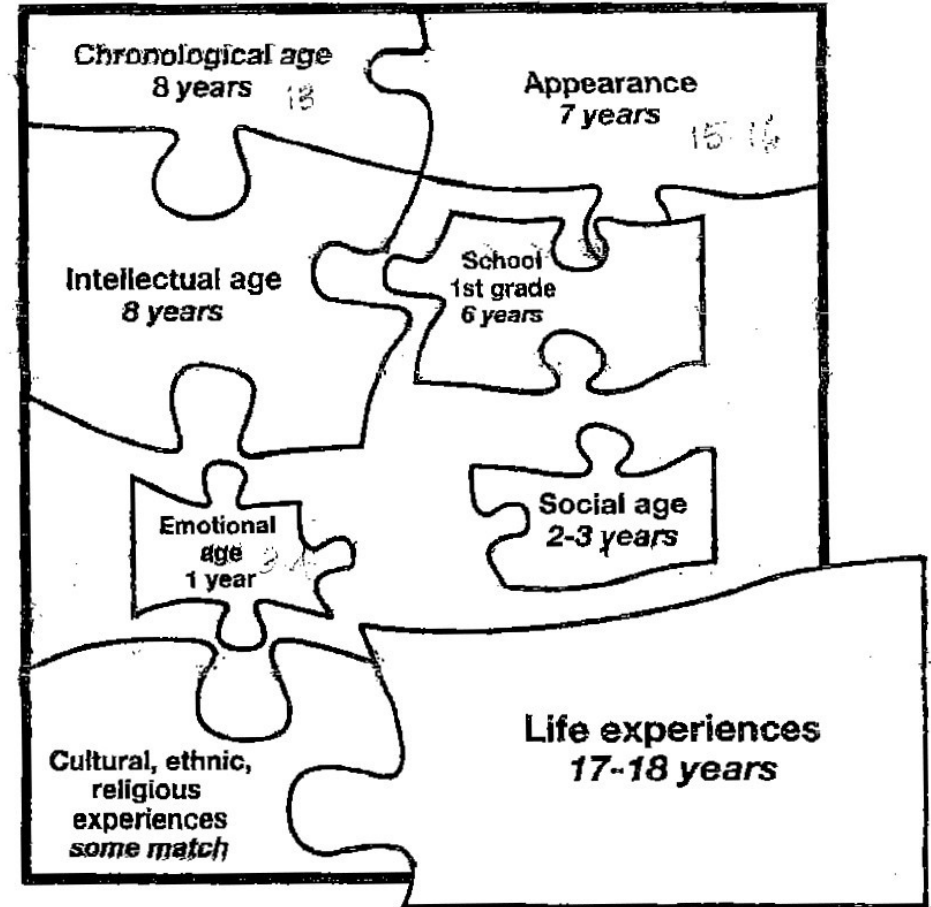


Cognitive Development

# Skewed Development



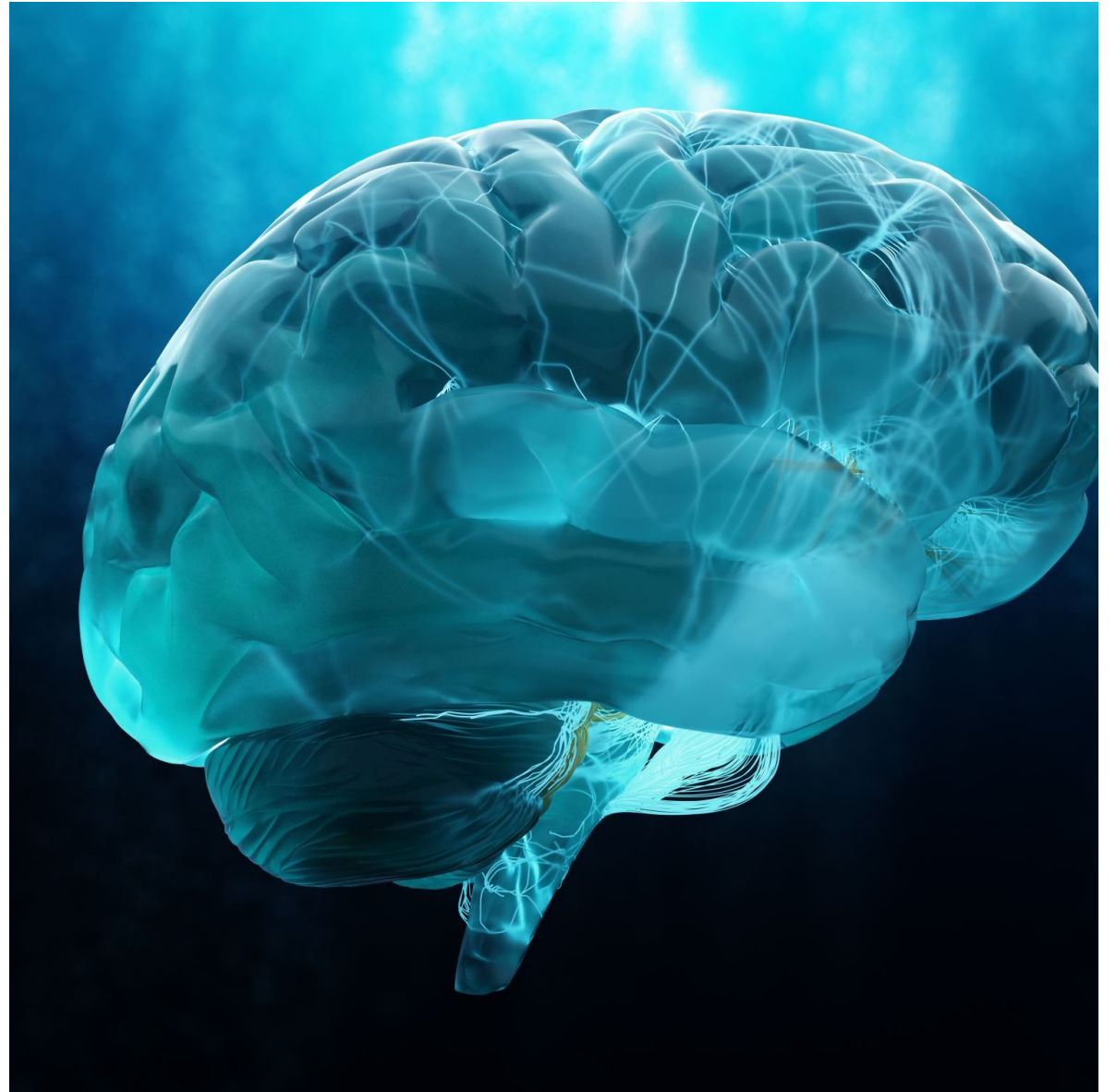
**Vernon, age 8  
with no developmental  
concerns**



**Vernon, age 8  
with developmental delays**

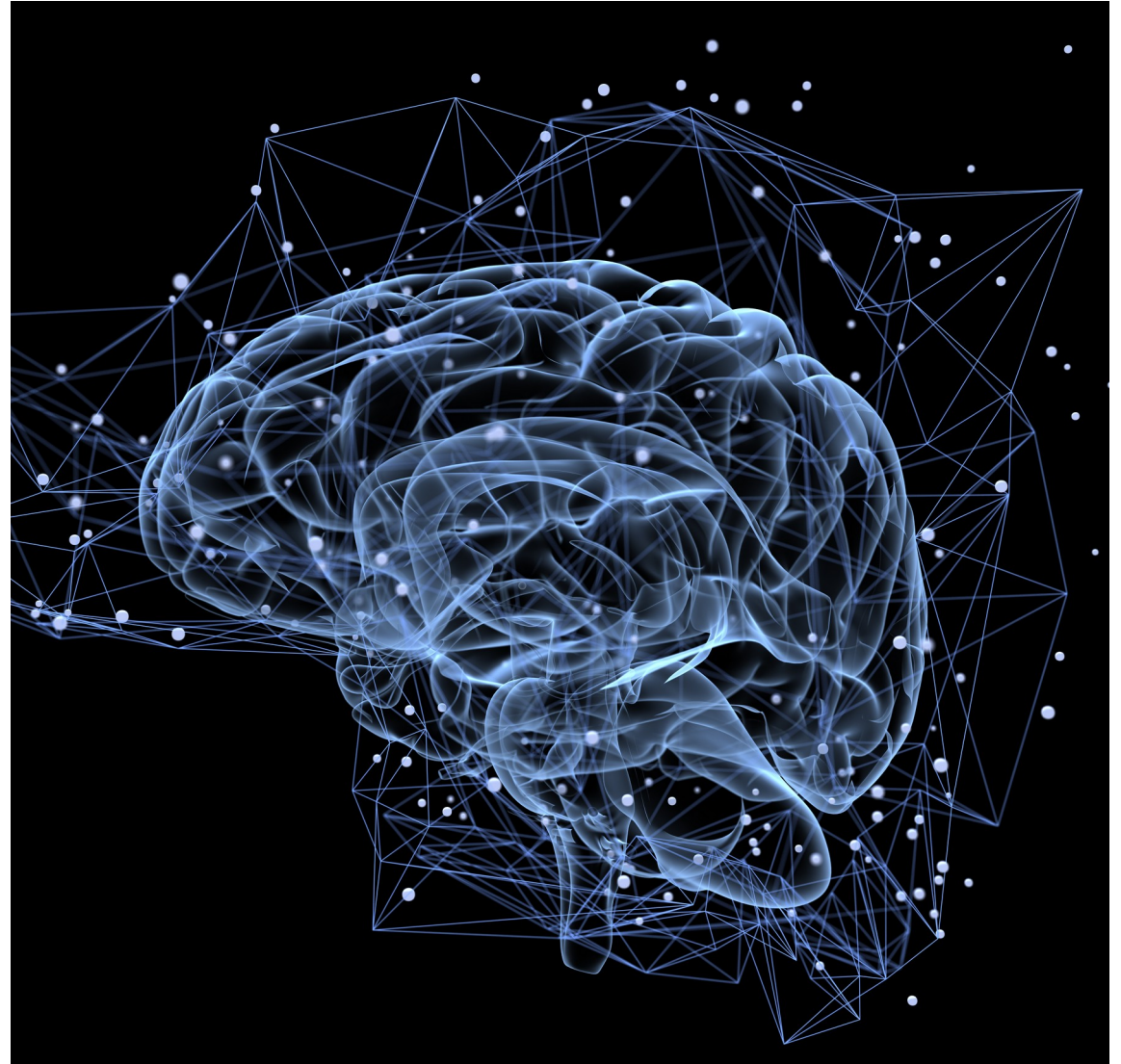


# Impact of Trauma on the Brain



# Key Principles

- The younger the child the more vulnerable the brain
- Trauma during the prenatal period and in the first three years compromises the foundational architecture of the brain.



# Indicators of Child Health (Gillian MacNamee)

---

- Eating
- Sleeping
- Toileting
- Playing



Healing  
Environments are  
Play-Based  
Environments



What is  
"child like"  
or "child  
directed  
play?"

---

Freely chosen by the child

---

The sheer pleasure of the  
experience motives children to  
continue

---

There are unspoken rules created  
by the children

# Why play?

---

- Play is neurodevelopmentally restorative
- Disarms fear—before children can explore the world, they must conquer their fears
- Practice social skills
- Creativity and imagination



# Play and Resilience

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Children learn to:

- Share
- Negotiate
- Resolve conflicts
- Learn self advocacy skills
- Decision making
- Take risks
- Make mistakes and fail in a safe environment
- Learn perseverance

# Control of their World

- The only time children are in control of their world is in play.
- We must be careful of "adulterating" the experience
- Children from trauma need time and space to "sit in the experience"



# The Power of Discovery (Gopnik, 2011)

- Children who were given unfamiliar materials to freely explore sustained the play longer and were more curious
- Children who were given a demonstration engage for shorter periods and were less curious



# Play and Healthy Children



Healthy children are always playing or looking for the next opportunity to play.



It reinstates a sense of wholeness and well-being.

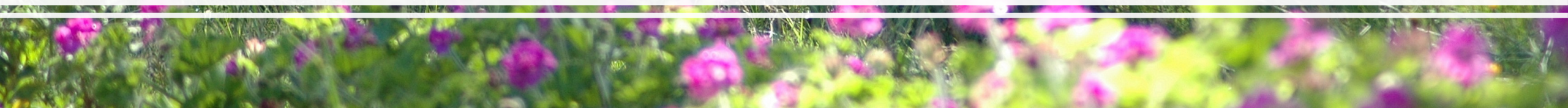


# How does trauma impact play?

- Trauma and stress is restrictive, focused on self protection and confining; play is imaginative, expressive and expanding by nature.
  - Children can become focused on winning and losing.
  - Can become very repetitive and unimaginative.
  - Control can become critical.
  - Can become focused on rules.
  - Struggle to get along with others.
-



Play is treatment in its purist form.



# Types of Play

- Active, gross motor play
- Dramatic play
- Manipulative play
- Sensory play
- Rhythmic play
- Creative play
- Rough and tumble
- Construction
- Cause and Effect
- Language play
- Symbolic play
- Rules based play
- Closed ended play

# Active Play

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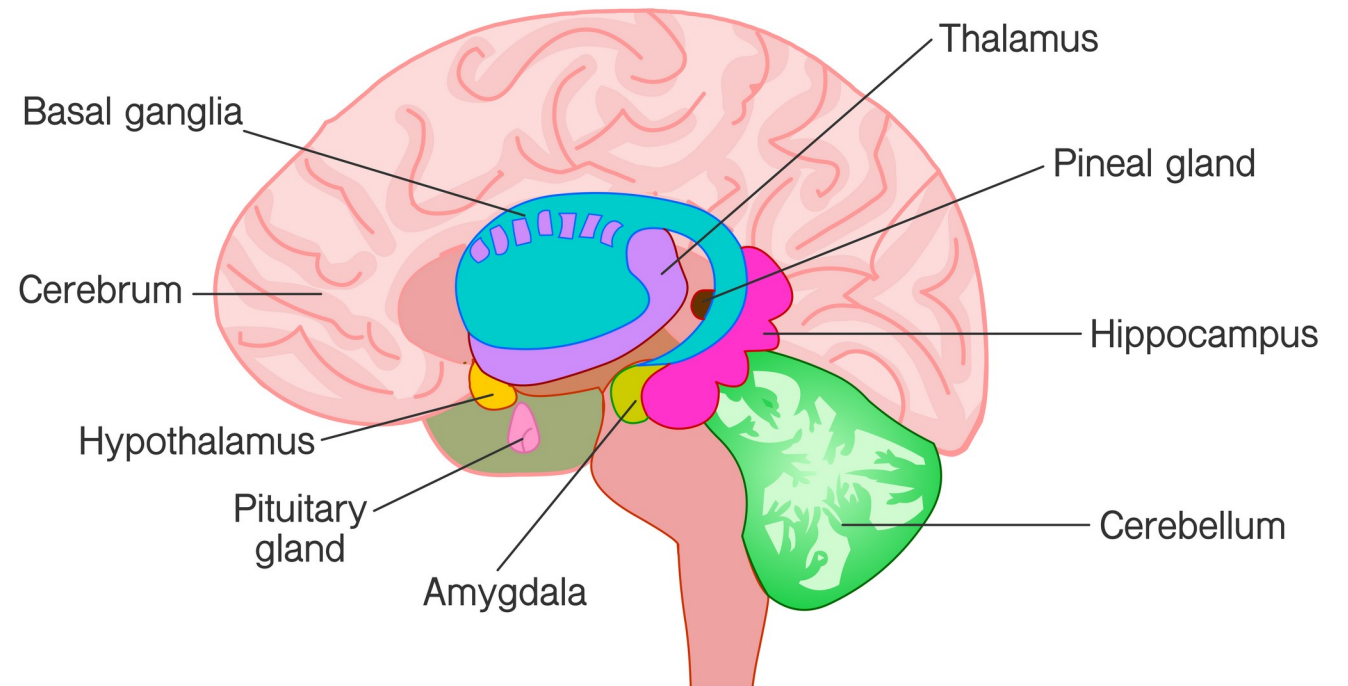
- "Brain derived neurotrophic factor" (BNF) or Miracle Grow
- Repairs the hippocampus which is the seat of short-term memory and information processing.



# Hippocampus

- Short term memory
- Information processing
  
- Boys vulnerable 0-7
- Girls vulnerable at 11, 12 and 15, 16

## Brain Anatomy



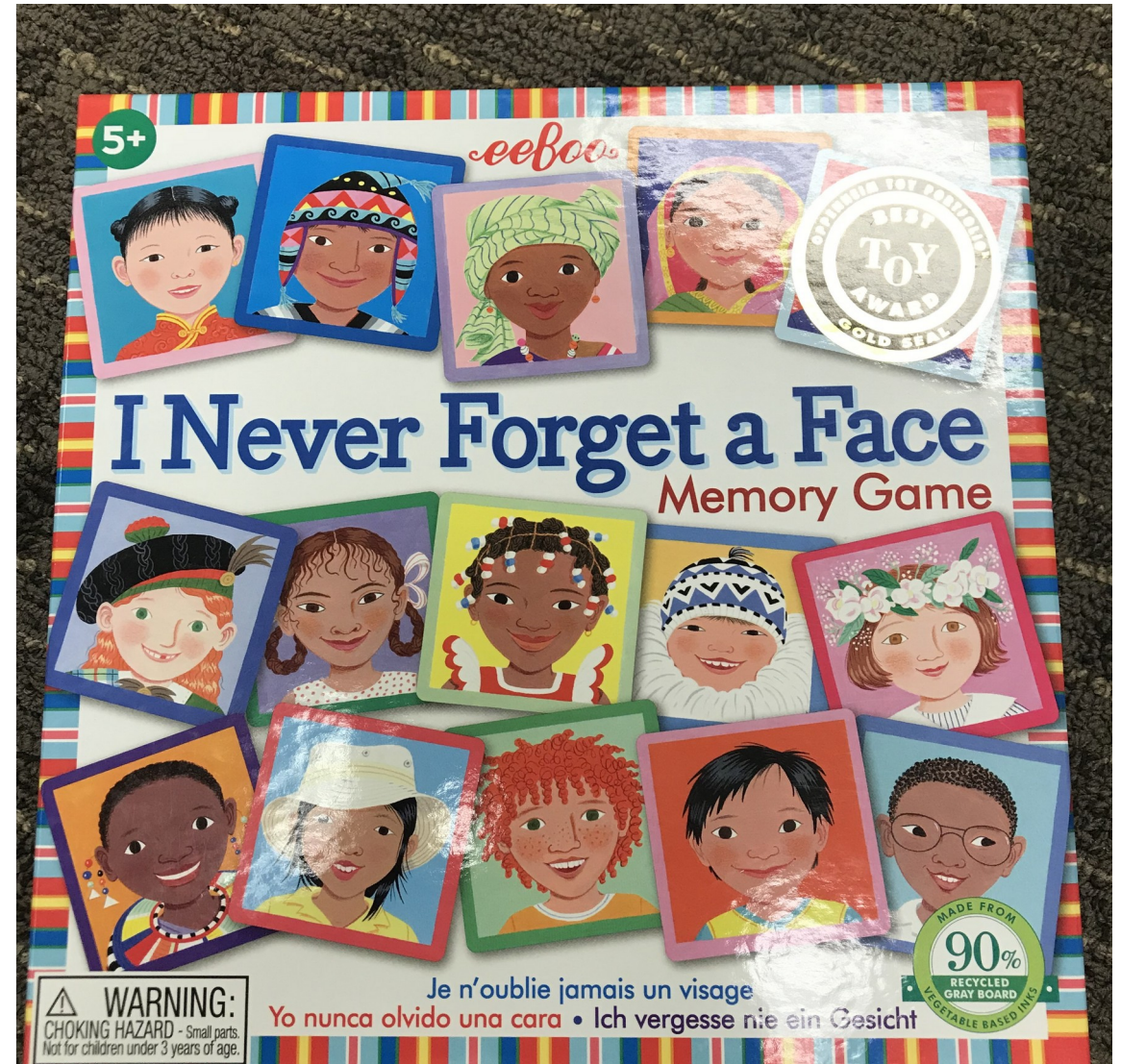
# Rough and Tumble





# Short Term Memory and Information Processing

- Memory games
- Visual cues



# Dramatic Play

---

- Expression of innermost thoughts and deepest emotions.
- A way of processing strong emotions in a safe context.
- Cathartic
- Develops perspective taking.



# The Power of Imitation

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Children need rich life experiences to have things to imitate.

This is how they make sense of the world.



# Doll House

---

- Dramatic play happens here



# Language Play

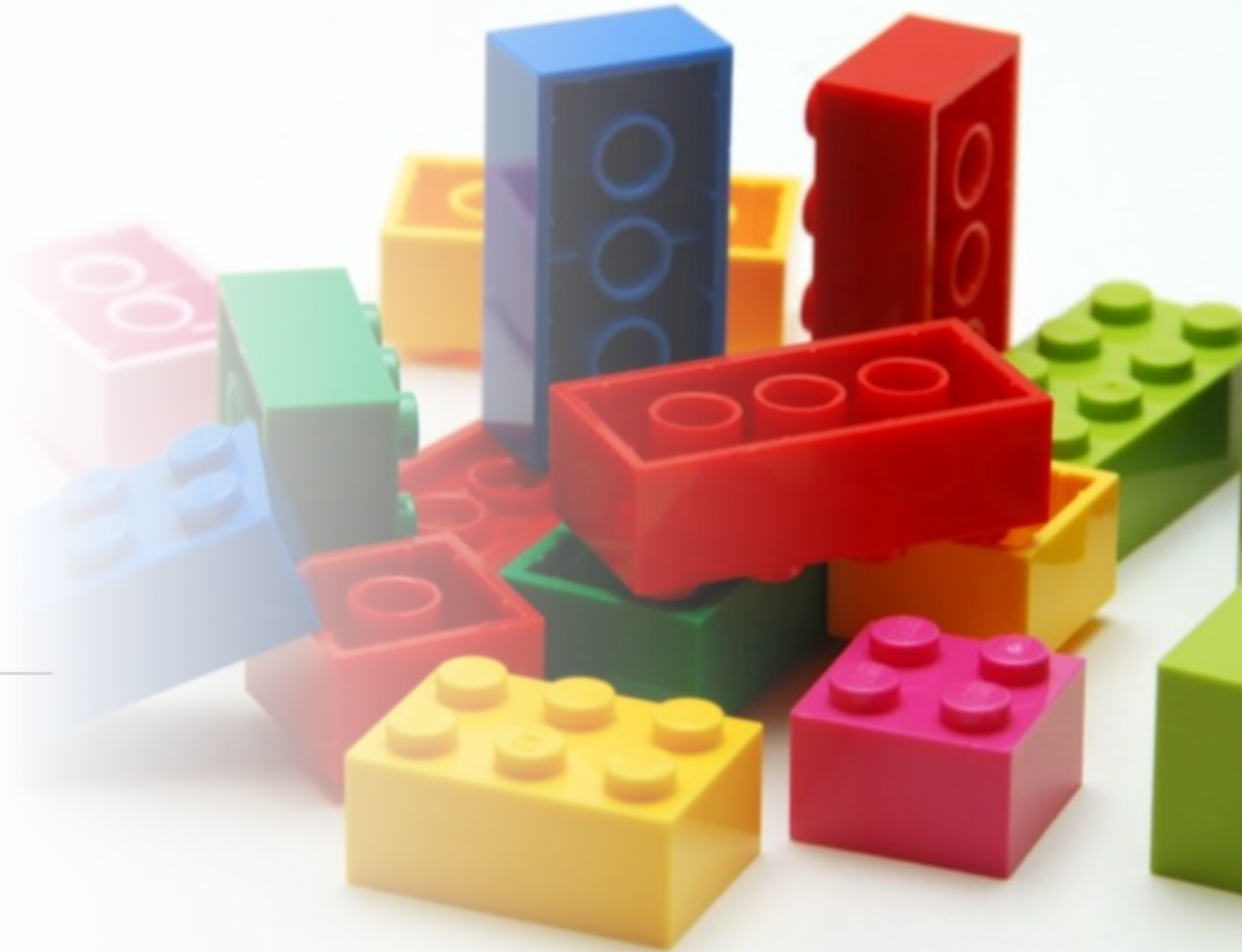




# Manipulative Play

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Putting things together and  
taking them apart



# Sensory Play

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- The regulatory and sensory systems are profoundly impacted with trauma.



# Variety of Materials



Georgetown Preschool  
Austin TX



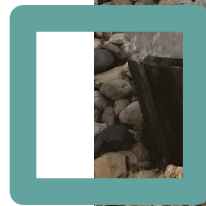




# Variety of Textures and Elevations



Georgetown Preschool  
Austin TX

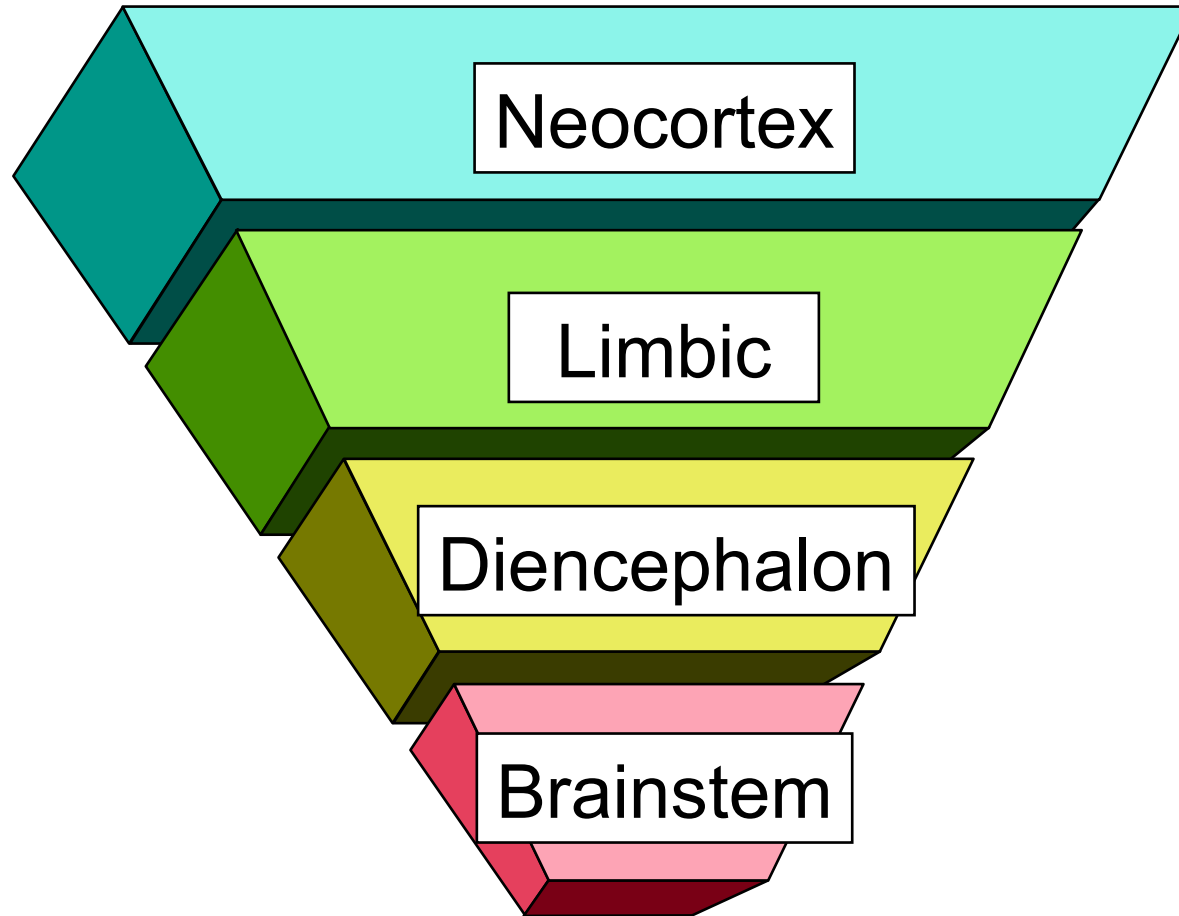


# Rhythmic Play



Why  
Rhythm?





Abstract thought  
Concrete Thought

Affiliation

"Attachment"

Sexual Behavior

Emotional Reactivity

Motor Regulation

"Arousal"

Appetite/Satiety

Sleep

Blood Pressure

Heart Rate

Body Temperature

# Rocking Equipment

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- Rocking chairs
- Rocking horses
- Rocking hammocks
- Rocking boats
- Glider rockers





# Circle Games











Construction



# Organization



Complex Block Play

# Symbolic Play

- Loose parts
- Dramatic play



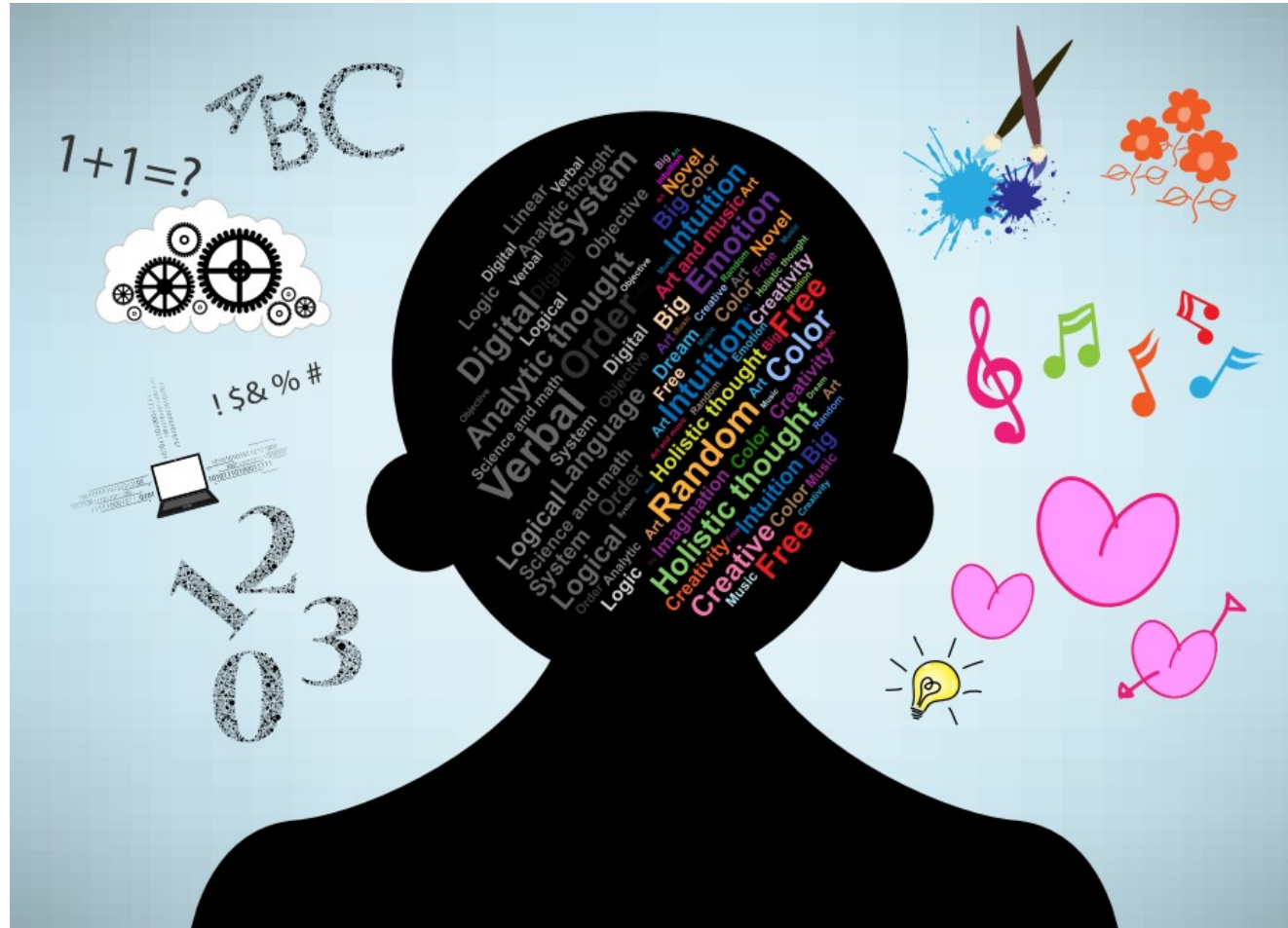
# Cause and Effect

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- Gears
- Levers
- Pulleys
- Pendulums
- Ramps



# Hemispheric Integration



# The Two Hemispheres of the Brain



Linear



Logical



Language

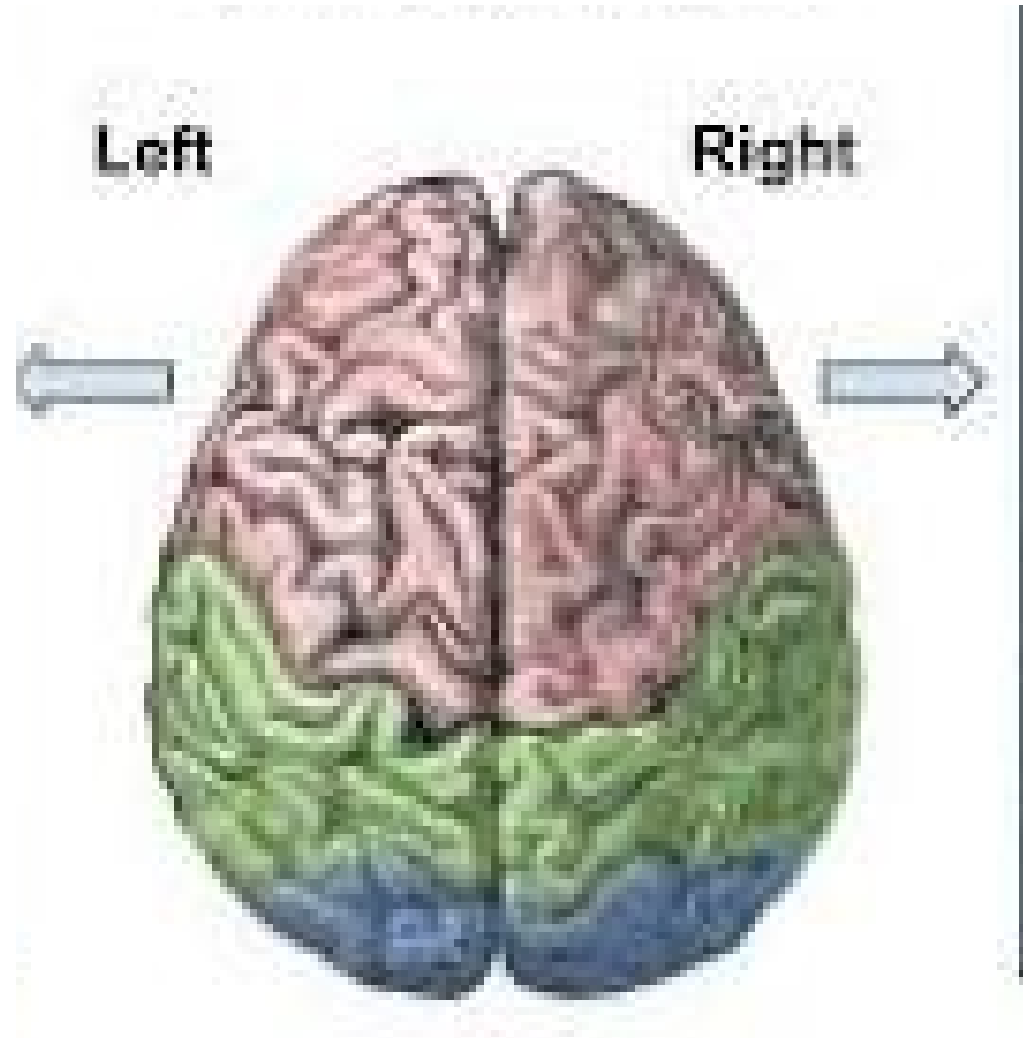


Literal

- Emotional
- Non-verbal
- Experiential
- Autobiographical
- Holistic
- Big picture
- Meaning
- Memories
- Intuitive

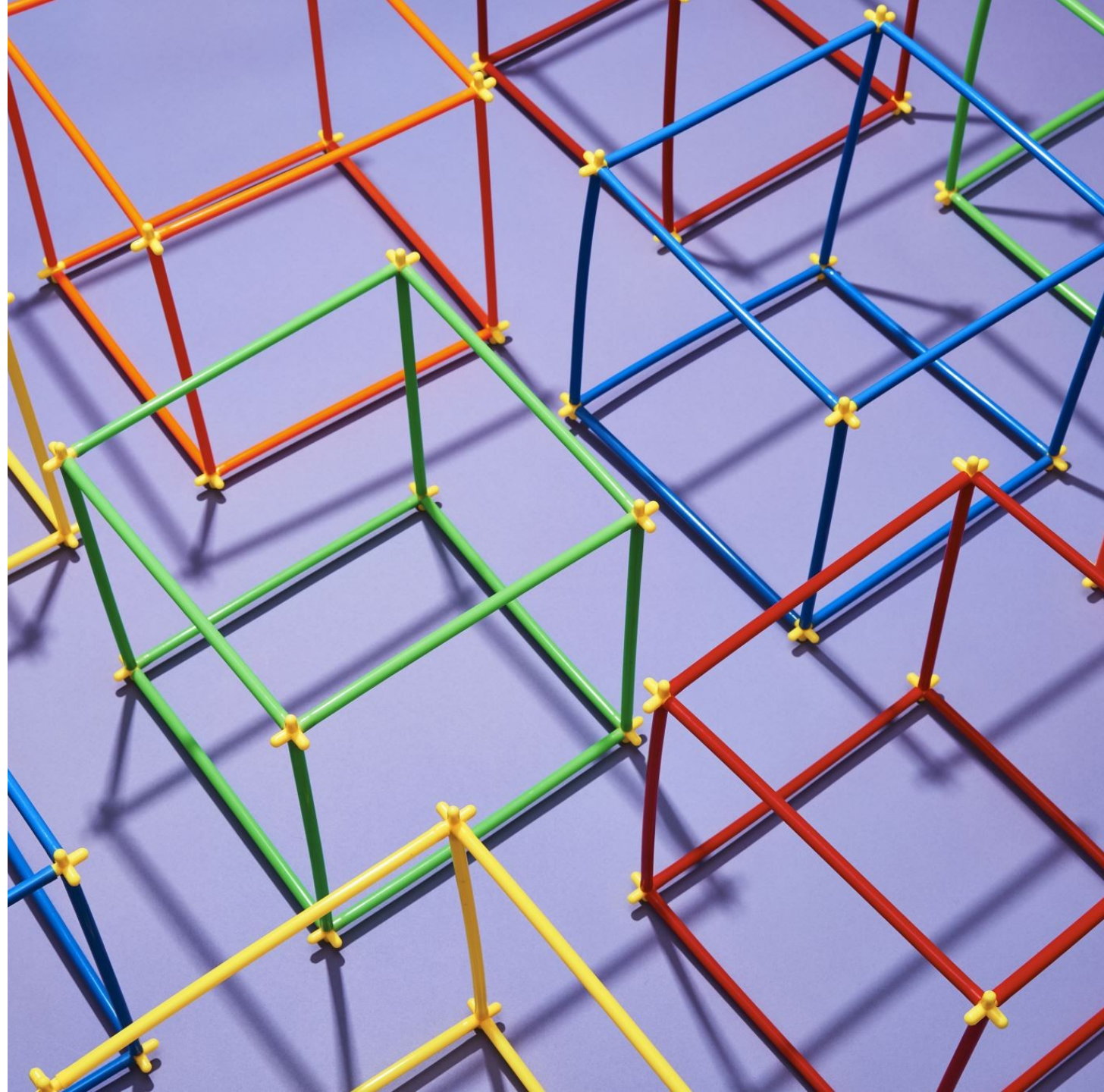


Corpus Callosum



# Cause and effect

- Playful activities that manipulate variables and contingencies: pulleys, pendulums, gears, levers, ramps
- Strategic board games
- Social interaction
- Cooking



# Storytelling and Reading

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Engages linear thinking,  
language, reasoning and  
emotions



# Ramping System

---





# Nature Play

# Healing Power of Nature

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- Reduces cortisol/stress
- Restores attention
- Sense of connection to the world
- Increases creativity
- Creation of awe and wonder



# Building Connections

---

- We amplify the joy and delight





# Types of Nature Activities

- Naturalistic equipment
- Gardening
- Care of Animals
- Nature focused art experiences





Play Is the Language of Connection

