## **OUR EXPERIENCES HELP SHAPE OUR BRAIN:**

- Our brain rapidly develops in the first 5 years of life (HEALTHY experiences set a healthy foundation [kind of like a house]
- Our prefrontal cortex [thinking brain] continues to develop until age 25!
- How our brain is wired and communicates to itself and to the body can change in response to our experiences (good and bad)
  throughout life [but harder to do as we get older]. We are wired for connection, but stress and threats wire us for protection (stress
  response)
  - "Use it or lose it": The parts of our brain that we use often, get stronger, the parts we use less often become weaker.
  - o Stress can disrupt healthy brain development, making it more difficult to learn, play, and work as we get older.



- 1. Prefrontal cortex [THINKING BRAIN]
- planning, learning, focusing, emotional regulation, understanding consequences,
- empathy 2. Midbrain: [EMOTIONS]
  - · fear response, memory, filters information
- 3. Brainstem [SURVIVAL]
- Heart rate, respiratory rate, blood pressure, body
  - temperature



- · Balanced mood:
  - o prefrontal cortex: ON
  - o Midbrain + brainstem: BALANCED
  - Brain is wired for connection
    - can focus, feel calm, balanced mood, make and keep friendhsips

GOOD SELF ESTEEM

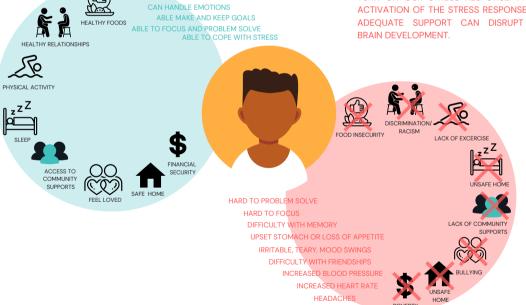
BALANCED MOOD

- Stress [FIGHT OR FLIGHT]
  - o prefrontal cortex: OFF
  - o Midbrain + brainstem HIGH
  - o Brain becomes wired for protection
    - Theart rate + breathing rate
    - ↑ blood pressure
    - difficulty focusing, planning, learning
    - irritable mood

# SAFE AND NURTURING ENVIRONMENTS: SUPPORT HEALTHY BRAIN DEVELOPMENT

## STRESSFUL ENVIRONMENTS: CAN DISRUPT HEALTHY DEVELOPMENT

UNMET NEEDS (FOR FOOD, HOUSING, LOVE, AND BELONGING ETC) OR UNSAFE ENVIRONMENTS TURN ON OUR STRESS RESPONSE. PROLONGED ACTIVATION OF THE STRESS RESPONSE WITHOUT ADEQUATE SUPPORT CAN DISRUPT HEALTHY BRAIN DEVELOPMENT.



### **POSITIVE STRESS**

#### **TOLERABLE STRESS**

#### **TOXIC STRESS**

BRIEF STRESS RESPONSE
PART OF HEALTHY DEVELOPMENT
HELPS BUILD RESILIENCE
EXAMPLES:
FIRST DAY OF SCHOOL, EXAMS
STARTING A NEW JOB

SERIOUS TEMPORARY STRESS RESPONSE BUFFERED BY PROTECTIVE FACTORS SUCH AS HAVING CARING RELATIONSHIPS PROLONGED ACTIVATION OF STRESS RESPONSE WITHOUT THE BUFFER OF CARING RELATIONSHIPS / LIMITED PROTECTIVE FACTORS

#### IMPACT OF TOXIC STRESS:

- DECREASE ABILITY TO FOCUS
- DECREASED MEMORY
- DECREASED FEELING OF SAFETY
- INCREASED FEAR
- POOR MENTAL HEALTH
- POOR PHYSICAL HEALTH