science minded



THE SCIENCE OF TEMPERAMENT AND EMOTION REGULATION

Practical Tools for Fostering Self-Regulation and Understanding Diverse Behavioural Needs



A TALE OF TWO CHILDREN







FRANKIE





LUCA





A TALE OF TWO CHILDREN





Because behind every behaviour is a message.

And behind every message is a need.





WHY DO TEMPERAMENT AND EMOTION REGULATION MATTER?



Children are born different



WHY DOES THIS MATTER?





1. Respond to children's needs with empathy

WHY DOES THIS MATTER?



2. Support their development



1. Respond to children's needs with empathy

WHY DOES THIS MATTER?



2. Support their development



1. Respond to children's needs with empathy

3. Create calmer, more responsive care environments

WHAT WE'RE TALKING ABOUT

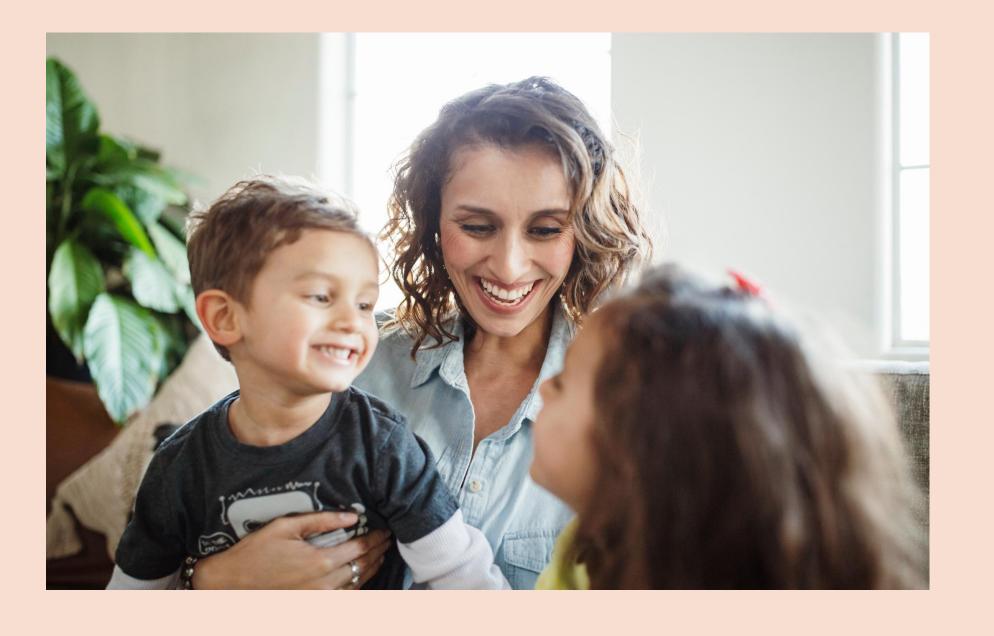




What we'll cover:

- Children's emotional development:
 Specifically how they experience, regulate and process Emotion
- What temperament is and how it shapes every aspect of Emotional Development
- Practical Techniques to create inclusive,
 supportive environments that respect individual differences.

WHAT YOU'LL LEAVE WITH





A toolkit of skills to:

- Better **understand** and **recognise** different temperamental needs.
- Respond effectively to these individual needs using emotion-regulation strategies that support diverse learners.
- Create a classroom culture that fosters connection, emotional resilience and understanding.



WHO AM I?

DR SIOBHAN KENNEDY-COSTANTINI

A Mother, Scientist and an advocate for parents, families and the early learning sector.

Sharing the Science of Childhood with the adults who shape it.





WHO AM I?

DR SIOBHAN KENNEDY-COSTANTINI

A Mother, Scientist and an advocate for parents, families and the early learning sector.

Sharing the Science of Childhood with the adults who shape it.





EMOTIONS ARE FUNCTIONAL











EMOTIONS ARE FUNCTIONAL



FEAR helps us <u>stay</u> safe by avoiding potential harm.



SADNESS invites

others to offer

soothing and support.



ANGER signals us to protect what matters.



JOY build bonds, reinforce connection and encourage play.

Reference: Ekman 1992; Barrett & Russell 2015



WHAT ARE EMOTIONS?



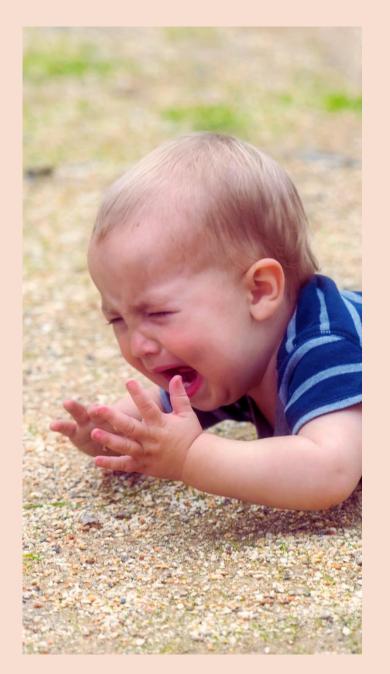
Emotions are signals.



For young children, they're a cue to gain a caregiver's attention.



Emotions act as a bridge to connect us with others.





Reference: Gračanin, Bylsma, & Vingerhoets 2018; Russell & Widen 2002; 2004; 2008

EMOTIONS IN THE BRAIN

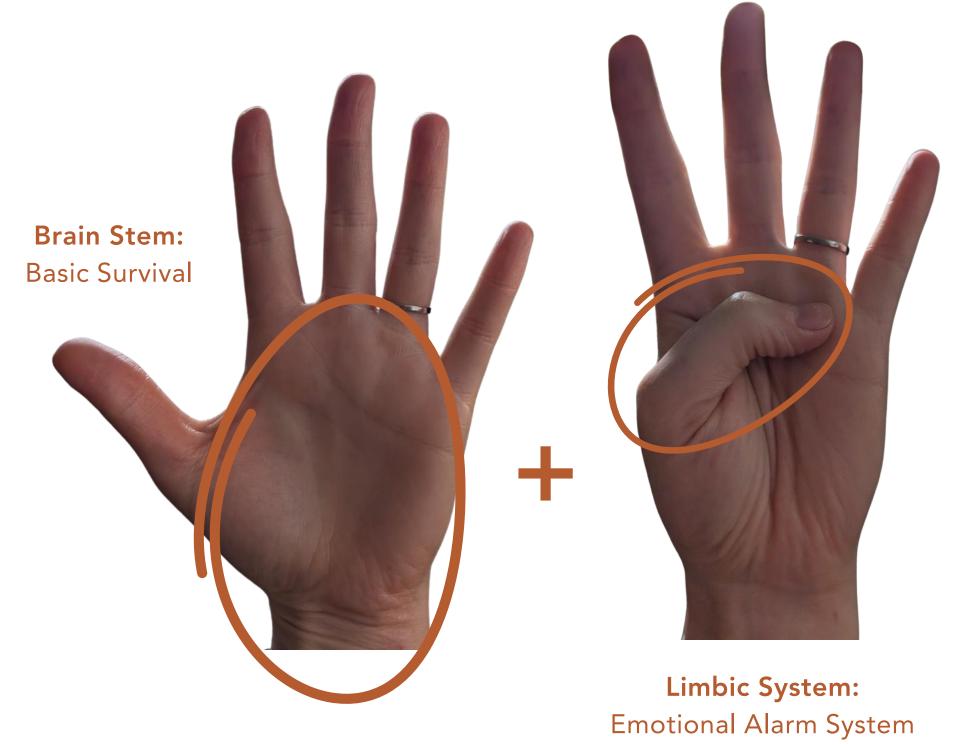


Hand Model of the Brain









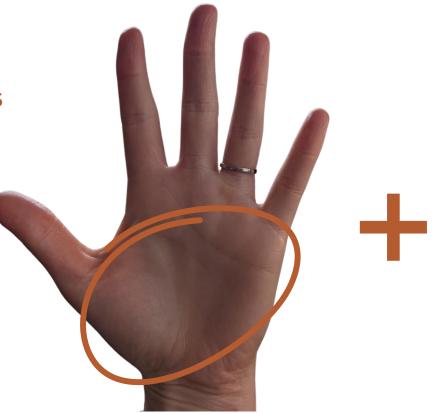


• Controls **automatic** processes

breathing, heart rate,digestion etc.

Part of brain that reacts

Fight, Fight, Freeze, Fawn



"Reptilian" Brain
(300 millions years old)



"Mammalian" Brain
(200 millions years old)

- Internal "alarm system" tags
 experiences as safe/unsafe
- Stores emotional memories
- Connects to our attachment system



Brain Stem: Basic Survival

Limbic System:Emotional Alarm System

UPSTAIRS BRAIN

Thinking Brain: Logic, Calm, Reason





UPSTAIRS BRAIN



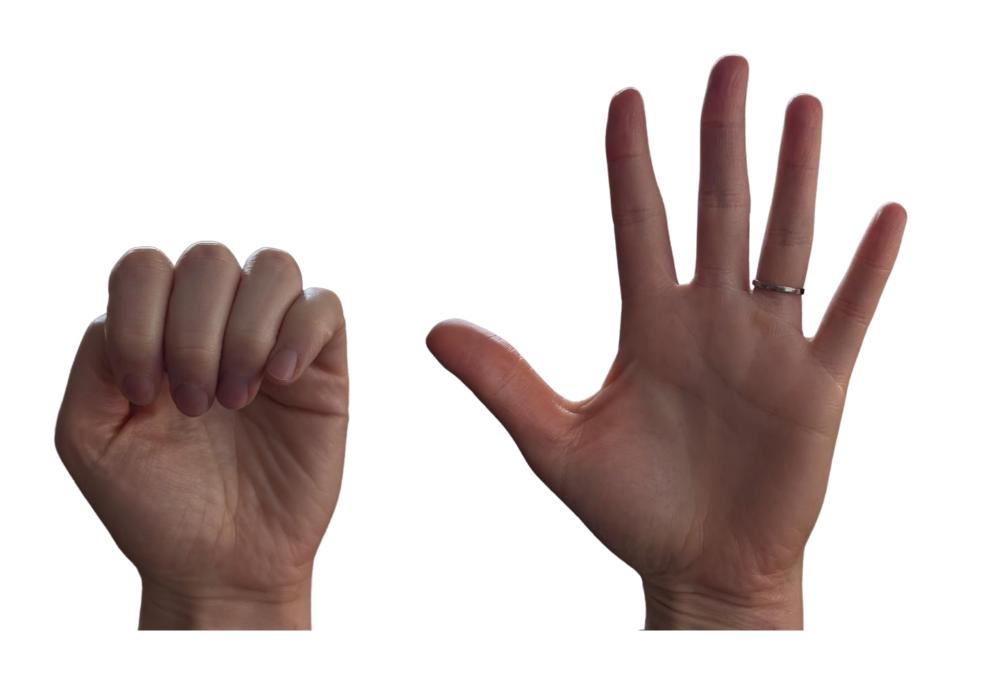
Pre-frontal cortex (not mature until 25+ years)

• It helps us:

- Think before we act (impulse control)
- Understand how our actions affect others (perspective taking/empathy)
- Puts the brake on our emotions (emotional regulation/inhibition)
- Make good choices even when upset (inhibition)
- Calm ourselves down (emotional regulation)



NEUROSCIENCE OF A TANTRUM



"Flipping their lid"



EMOTIONAL DEVELOPMENT







Experiencing



EXPERIENCING EMOTION

SENSATION

PHYSICAL

MENTAL





EXPERIENCING EMOTION

SENSATION

BEHAVIOUR

PHYSICAL

MENTAL

EXTERNAL EXPRESSIONS









BEHIND EVERY BEHAVIOUR IS A NEED.

CONNECTION HELPS US SEE THE MESSAGE UNDERNEATH.

BEHAVIOUR ISN'T THE END OF THE STORY:
IT'S THE STARTING POINT FOR CURIOSITY AND CARE.

WHAT YOU MIGHT THINK IN RESPONSE TO THE BEHAVIOUR

They're defiant
I can't let them get away with this.
If this is now, what's next?

CHILD THROWS A PLATE

WHAT YOU THINK CAUSED IT



"I wasn't allowed to go first!"

"Jasper just pinched me and it hurt."

"Everyone keeps saying no"

"I don't normally come to daycare on Wednesdays... but I did today. I don't know why."

"I miss my Grannie"

"I don't get to choose anything"

"I've told Miss Sarah I need help three times already! She's not listening."





BEHAVIOUR IS COMMUNICATION

DIFFICULT
BEHAVIOUR ALERTS
US TO AN UNMET
NEED



Being physical, getting aggressive

Defiance.
Refusal to following instructions.

Difficulties or tantrums at Group Time and/or Transitions

Escalation that turns into full "meltdowns"



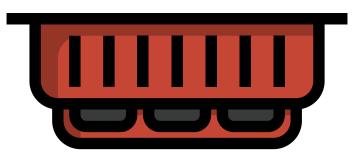
"NAUGHTY" KIDS ARE ALMOST ALWAYS SENSITIVE KIDS

CONNECTION HELPS US SEE THE MESSAGE UNDERNEATH.



BEHAVIOUR IS COMMUNICATION

DIFFICULT
BEHAVIOUR ALERTS
US TO AN UNMET
NEED





Being physical, getting aggressive

Defiance.
Refusal to following instructions.

Difficulties or tantrums at Group Time and/or Transitions

Escalation that turns into full "meltdowns"

"I'm overwhelmed and my body is reacting before my brain can catch up."

"I feel angry but I don't yet have the words to tell you why."

"I feel out of control, and saying no is the only way I can get some back."

"I have a good reason, but I don't yet know how to explain it."

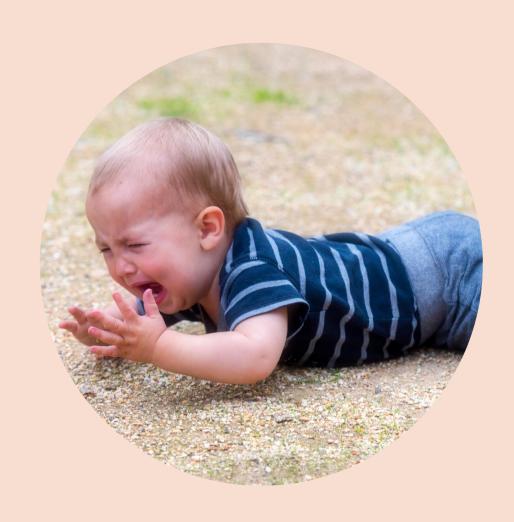
"I need to move my body, but now I'm being asked to sit still."

"It's not the sitting still that's hard, it's the social stuff happening around me."

When a child is completely emotionally dysregulated and lashing out, it's not an opportunity for skill development.

Our role is to show them that they're safe.

EMOTIONAL DEVELOPMENT







Experiencing

Regulating



Reference: Russell & Widen 2002; 2004; 2008



REGULATING EMOTION

SELF-REGULATION

DEVELOPS OVER TIME

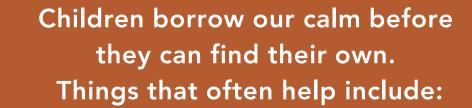
CO-REGULATION

THE FOUNDATION

Develops over time. Children aren't born knowing how to manage their feelings.

They learn it through experience, especially through co-regulation.









- Warm, physical presence (sitting nearby, gentle touch)
- Simple language to name feelings
- Deep breaths, slow rhythms, shared stillness
- A safe, accepting adult response





REGULATING EMOTION

SELF-RE

DEVELOP

Develops over tirk knowing how to They learn it especially thr

BUT...HERE'S THE THING

These strategies often don't work as reliably for Highly Sensitive Kiddos.

Or if they do, it's hit and miss.

We'll come back to why that is (and explore what does work) in a few sections time.

ULATION

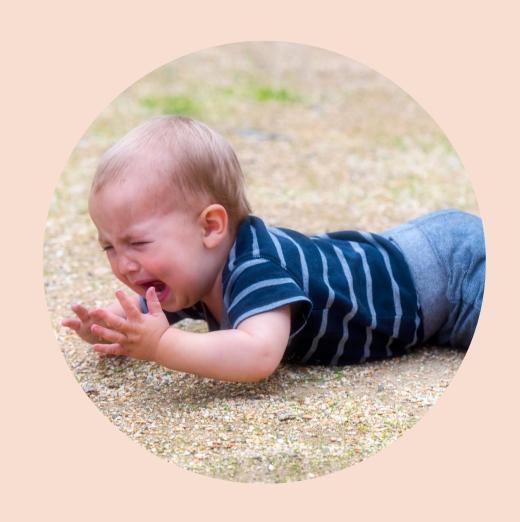
NDATION

our calm before d their own. en help include:

- A calm, steady tone of voice
- Predictable routines
- Warm, physical presence (sitting nearby, gentle touch)
- Simple language to name feelings
- Deep breaths, slow rhythms, shared stillness
- A safe, accepting adult response



EMOTIONAL DEVELOPMENT







Experiencing

Regulating

Processing







PROCESSING EMOTION

COGNITIVE

TALK ABOUT IT

This is just ONE way of processing. And usually, it doesn't work very well for young children.



PHYSICAL

PLAY MOTOR SENSORY

Children often process through play; reenacting events with toys, dolls or other objects.

Others might process through movement: running, climbing, dancing.





EMOTIONAL DEVELOPMENT



Experiencing

Regulating



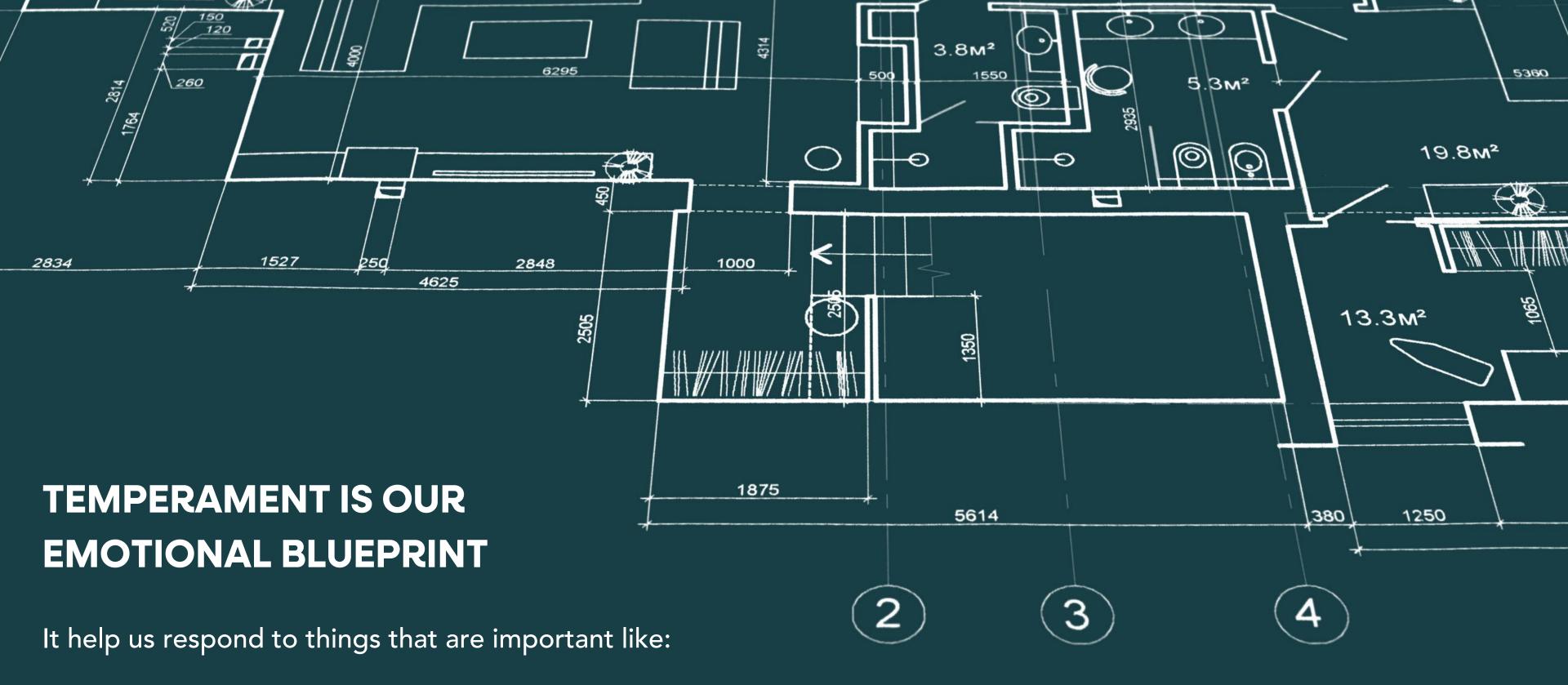
Processing







EVERY CHILD'S EMOTIONAL STARTING POINT



- recognising when something is rewarding
- potential threats
- paying attention/tuning into others' emotions or behaviour.





TEMPERAMENT

We can also think of it as the built-in "factory settings" for our Emotional Operating System

We can't change a child's temperament, but we can learn how to work with it. When we understand our child's natural way of being, we can support them in ways that help them thrive.





Shaped by biological & genetic factors affecting how we react to our environment.

E.g. some babies are naturally calm and easygoing. Others are more active or sensitive.

1

BEHAVIOUR

2

3

INDIVIDUAL

4

RELATIONSHIPS



Shaped by biological & genetic factors affecting how we react to our environment.

E.g. some
babies are
naturally calm
and easygoing.
Others are
more active or
sensitive.

1

BEHAVIOUR

How we handle stress or change is influenced by our temperament.

E.g. one child might jump right into a new group of friends, another may hang back & observe.

3

INDIVIDUAL

4

RELATIONSHIPS



Shaped by biological & genetic factors affecting how we react to our environment.

E.g. some
babies are
naturally calm
and easygoing.
Others are
more active or
sensitive.

1

BEHAVIOUR

How we handle stress or change is influenced by our temperament.

E.g. one child might jump right into a new group of friends, another may hang back & observe.

3

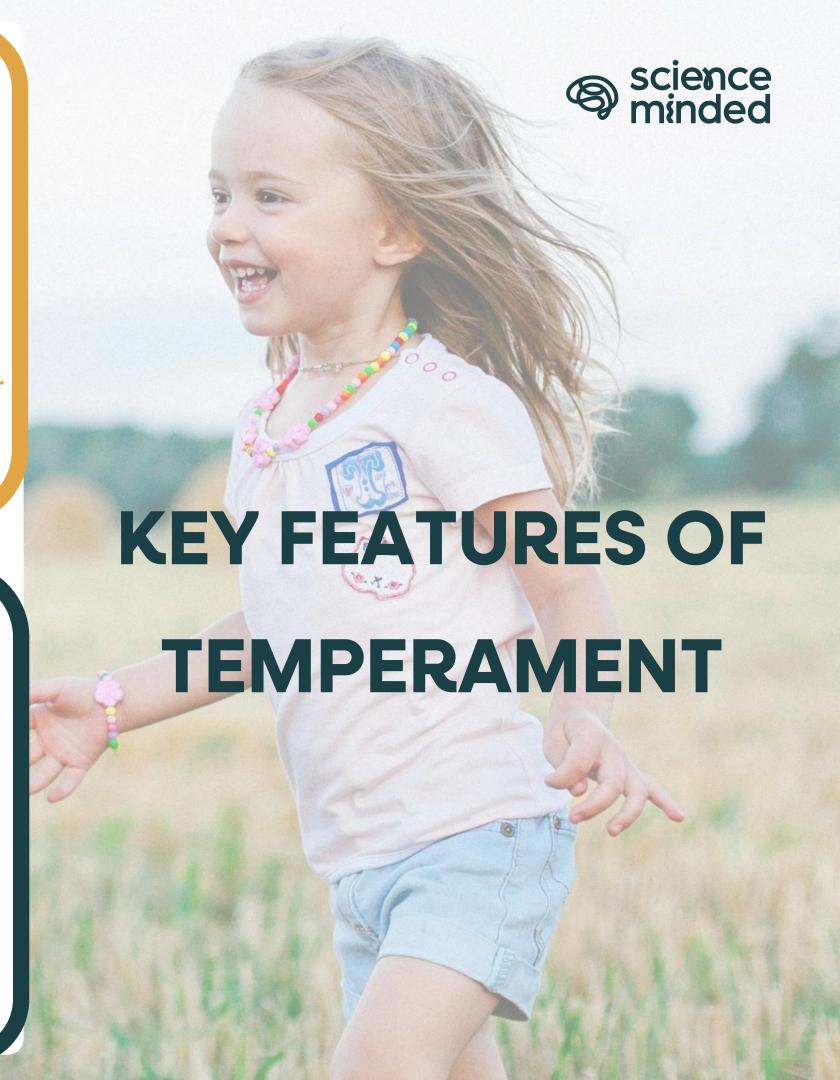
Temperament varies from person to person.

There is no "right" or "wrong" temperament - just different ways of being.

INDIVIDUAL

4

RELATIONSHIPS



Shaped by biological & genetic factors affecting how we react to our environment.

E.g. some
babies are
naturally calm
and easygoing.
Others are
more active or
sensitive.

1

BEHAVIOUR

How we handle stress or change is influenced by our temperament.

E.g. one child might jump right into a new group of friends, another may hang back & observe.

3

Temperament varies from person to person.

There is no "right" or "wrong" temperament - just different ways of being.

INDIVIDUAL

4

A child's
temperament can
influence how
parents, teachers,
and caregivers understand,
experience and respond to

RELATIONSHIPS

their needs.

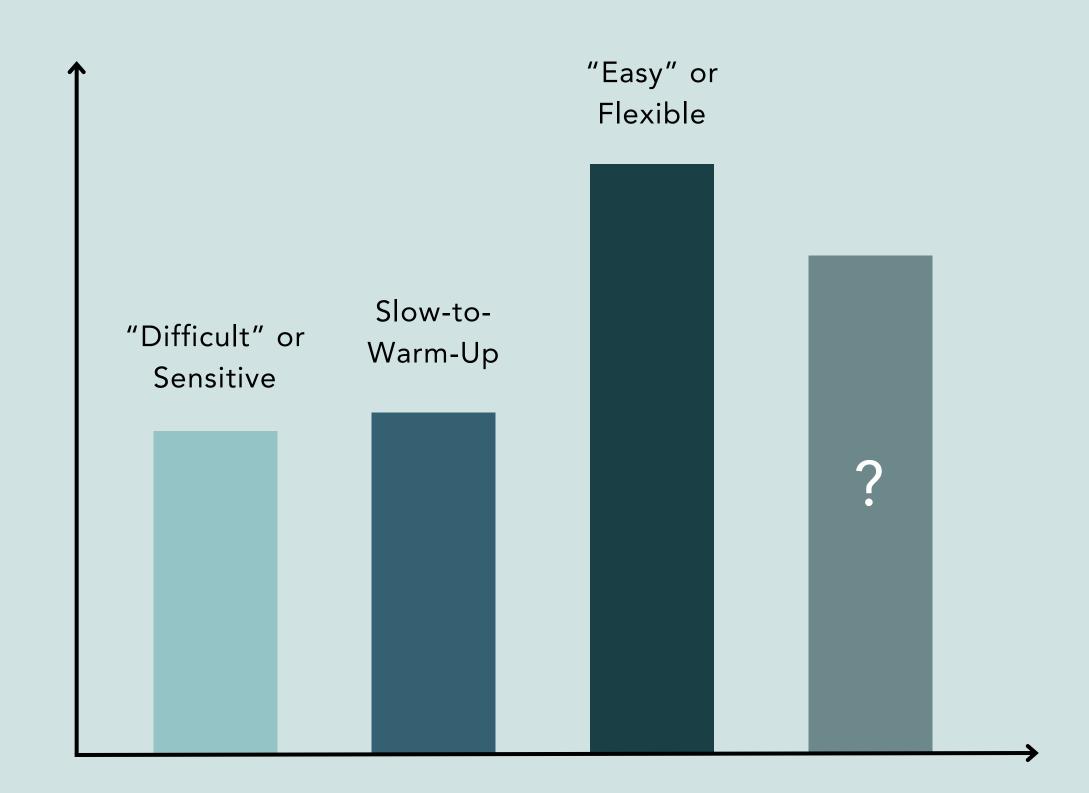




WHERE DOES ALL THIS TEMPERAMENT STUFF COME FROM?

"Temperament is not a matter of 'good' or 'bad.'
It is a way of being."

(Thomas & Chess, 1977)



WHAT DOES IT LOOK LIKE?

The first day of Kindy, for three children with different temperaments: Frankie, Ethan, and Luca







LUCA

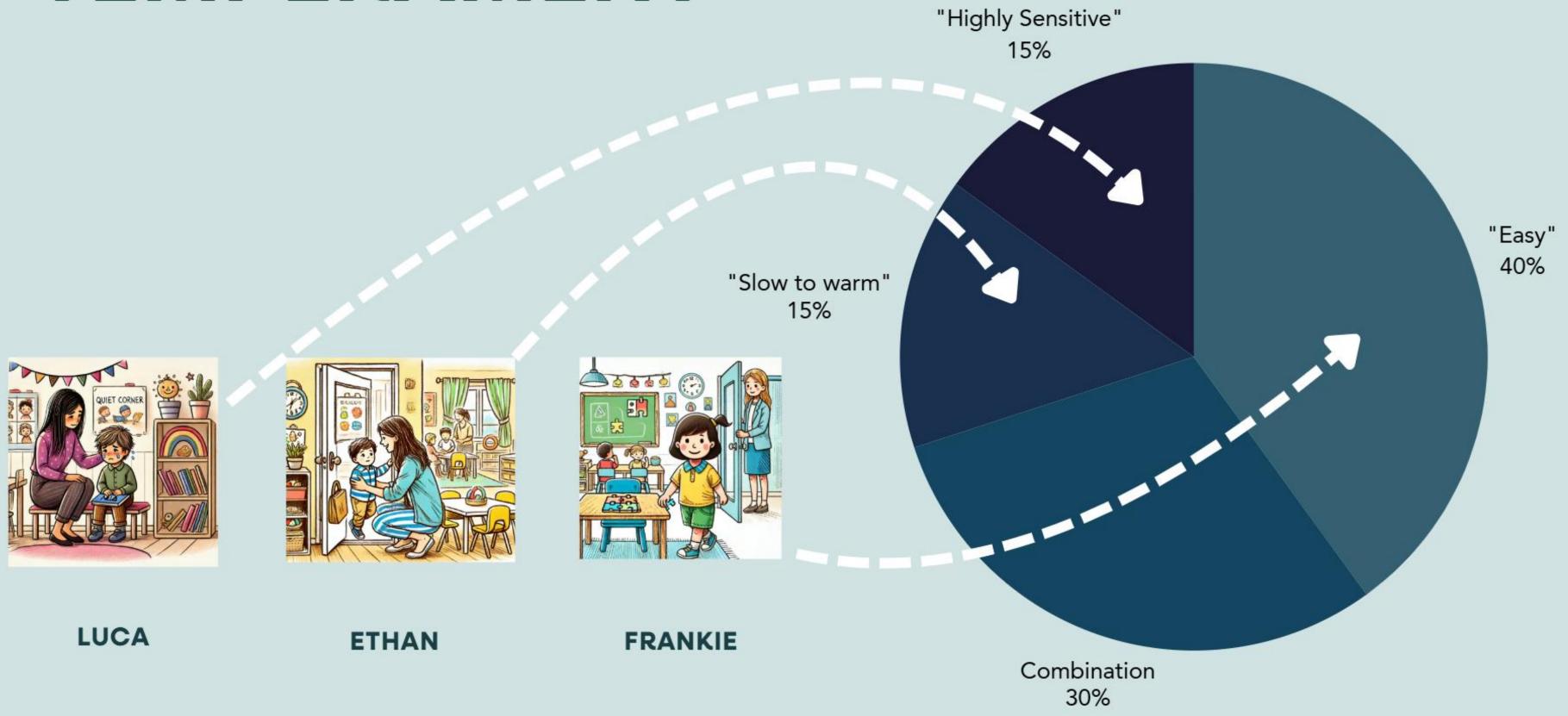
ETHAN

FRANKIE



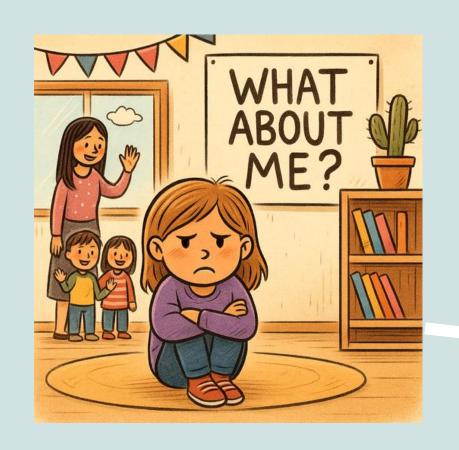


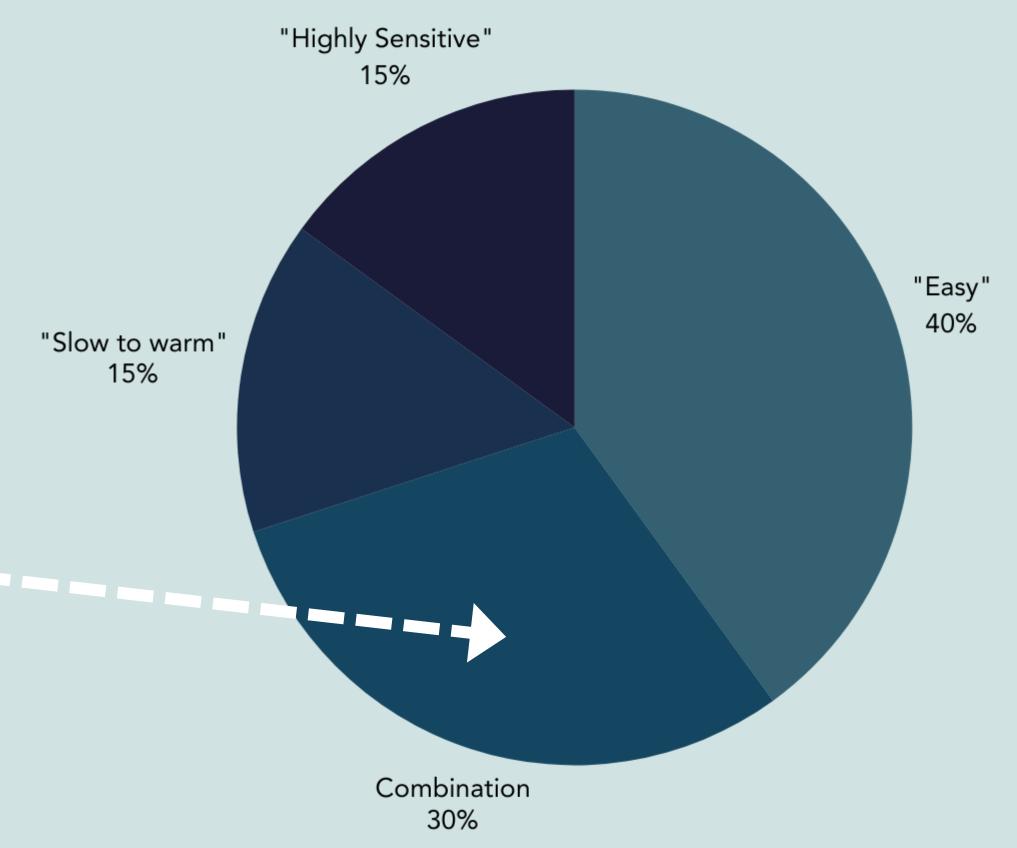
TEMPERAMENT



TEMPERAMENT







HOW DO WE MEASURE TEMPERAMENT?



Enengy

AKA Activity Level



Alertness



Intensity



Rhythms

AKA Regularity



Sensitivity

AKA Sensoty Awateness



Approach



Adaptability



Persistence



Mood



TEMPERAMENT QUESTIONNAIRE

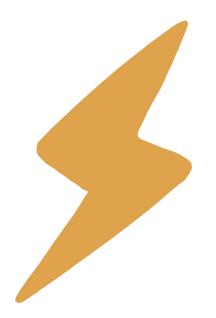
Let's all do this together

Source: Adapted from Thomas & Chess (1991)

DIMENSIONS	TYPICAL BEHAVIOUR	SCORE
ACTIVITY LEVEL Rate from 1-5 how active the child seems to be. QUIET - ACTIVE	"Quiet" children tend to stay in one place when asleep, sit still quietly for extended periods of time, are quiet and relaxed while being dressed (score = 1). "Active" children move around a lot in their sleep, are always on the move, kick and squirm while being dressed or changed (score = 5).	
ALERTNESS Rate from 1-5 how alert the child seems to be. MILD - HIGH	"Mildly" alert children are not bothered by crowds and are happy to eat, play or sleep anywhere (score = 1). "Highly" alert children require soothing in crowded places, stop eating if there is a commotion and need a lot of help to fall asleep (score = 5).	
INTENSITY Rate from 1-5 how strong the child's emotional reactions are. RELAXED - REACTIVE	Children who have relaxed responses rarely get upset, cry more subtly when they do and are more easily soothed (score = 1). Very intense/reactive children often go from 0-100, cry louder than other children and can be challenging to calm (score = 5).	
REGULARITY Rate from 1-5 how predictable the child seems to be. PREDICTABLE - UNPREDICTABLE	"Predictable" children are hungry at regular intervals and have predictable nap times & bed times (score = 1). "Unpredictable" children are hungry at different times each day and nap times always seem different day to day (score = 5).	
SENSITIVITY Rate from 1-5 how sensitive the child is (how aware/affected they are by their environment). LOW - HIGH	"Low Sensitivity" children sleep through noise, do not need to be held to sleep, don't seem to notice a dirty nappy (score = 1). "Highly Sensitive" children must have quiet to sleep, wake if put down, fuss when their nappy is dirty (score = 5).	
APPROACH Rate from 1-5 how the child reacts to new people or places. EAGER - CAUTIOUS	"Eager" children tend to approach new things easily, are calm when they meet new people and enjoy new places (score = 1). "Cautious" children are distressed by new things, get upset when approached by new people and often fuss in new places (score = 5).	
ADAPTABILITY Rate from 1-5 how adaptable the child is during transitions. MORE - LESS	A "more" adaptable child easily starts & stops eating at mealtime, falls asleep quickly, wakes up happily or quietly (score = 1). A "less" adaptable child cries or is upset when mealtime begins or ends, struggles to fall asleep or wake up, usually crying or upset (score = 5).	
PERSISTENCE Rate from 1-5 how persistent the child can be. LOW - HIGH	"Less persistent" children are distractable, even when hungry, they do not get upset if a toy is taken away. They are capable of being redirected (score = 1). "Highly persistent" children, when hungry need to eat immediately, get very upset if a toy is taken away and are not easily redirected (score = 5).	
MOOD Rate from 1-5 how serious or happy the child tends to be. POSITIVE - SERIOUS	A more often "positive child" is typically in a good mood, even when hungry or tired (score = 1). A more "serious child" appears thoughtful, focused and is often seen as more of an 'old soul' (score = 5).	

TOTAL =





ENERGY LEVEL

A.K.A Activity Level

High



Wiggly, squirmy, bouncing around. Always on the move. Seeks and craves activity and movement.

Low



Content to sit quietly and observe. Prefer more sedentary, calm activities.

"Jaya - Personal Trainer"

"Leo - Librarian"





ALERTNESS

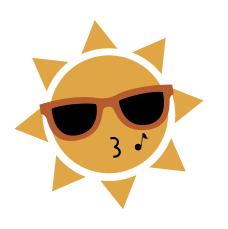
A.K.A distractability

High

Very alert, pays attention to and notices everything in their surrounding environment.

"Amira - Preschool Teacher"

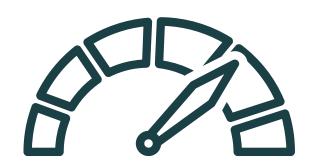
Low



Don't seem to notice or be affected by what's going on in their environment much.

"Sam - Businessman"





INTENSITY

High



Reacts strongly to things, both good and bad. Go from 0-100, experiencing high highs and low lows.

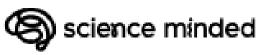


Low

More even-keeled. It takes a lot to get a reaction out of them, good or bad.

"Mei - Drama Teacher"

"Tom - Early Childhood Educator"



TEMPERAMENT QUESTIONNAIRE

DI	ME	NS	10	NS
----	----	----	----	----

TYPICAL BEHAVIOUR

SCORE

How much movement and physical energy you naturally bring to your day.

How easily, automatically do you notice changes in the environment.

How intensely do you feel/react to things. For positive AND negative emotions.

ACTIVITY LEVEL

Rate from 1-5 how active you/they are.

QUIET - ACTIVE

You tend to be physically calm. You sleep soundly in one position, are comfortable sitting still for long periods, and generally relaxed during everyday routines. (Score = 1)

You are always on the go. You shift frequently in your sleep, prefer to be moving throughout the day, and feel restless during routine tasks. (Score = 5)

ALERTNESS

Rate from 1-5 how alert you/they are.

MILD - HIGH

You are generally unbothered by busy environments. You can relax or fall asleep even with noise or activity around. (Score = 1)

You easily notice changes to the environment. You may find busy places overwhelming or struggle to focus or sleep when overstimulated. (Score = 5)

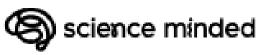
INTENSITY

Rate from 1-5 how strong your/their reactions are.

RELAXED - REACTIVE

You have stable emotional responses. You rarely become visibly upset, you express emotions subtly and if you are upset, you return to a calm state easily. (Score = 1)

You experience emotions intensely. You react strongly and quickly to situations, express feelings loudly or visibly, and take longer to calm down. (Score = 5)



TEMPERAMENT QUESTIONNAIRE

How much movement and physical energy you naturally bring to your day.

How easily, automatically do you notice changes in the environment.

How intensely do you feel/react to things. For positive AND negative emotions.

DIMENSIONS

ACTIVITY LEVEL

Rate from 1-5 how active you/they are.

QUIET - ACTIVE

ALERTNESS

Rate from 1-5 how alert you/they are.

MILD - HIGH

TYPICAL BEHAVIOUR

You tend to be physically calm. You sleep soundly in one position, are comfortable sitting still for long periods, and generally relaxed during everyday routines. (Score = 1)

You are always on the go. You shift frequently in your sleep, prefer to be moving throughout the day, and feel restless during routine tasks. (Score = 5)

You are generally unbothered by busy environments. You can relax or fall asleep even with noise or activity around. (Score = 1)

You easily notice changes to the environment. You may find busy places overwhelming or struggle to focus or sleep when overstimulated. (Score = 5)

INTENSITY

Rate from 1-5 how strong your/their reactions are.

RELAXED - REACTIVE

You have stable emotional responses. You rarely become visibly upset, you express emotions subtly and if you are upset, you return to a calm state easily. (Score = 1)

You experience emotions intensely. You react strongly and quickly to situations, express feelings loudly or visibly, and take longer to calm down. (Score = 5)

SCORE

4

3





REGULARITY

A.K.A rhythmic

High



Very predictable. Tend to eat, sleep, toilet at the same time each day.
You can set a clock by their bio-rhythms.

"Ella - Hairdresser"

Low



Unpredictable or variable appetite or sleep. May reject strict schedules & find structured routines stifling.

"Jordan - Relief Teacher"

Thomas & Chess (1977)





SENSORY

High

Low





SENSORY

High

Easily affected by sensory stimuli like light, noise, temperature, hunger or discomfort.

"Dylan - Speech The rapist"

Low



Unaffected by sensory stimuli. Can sleep through anything, eats anything, doesn't rattle easily.

"Ava - Sports Coach"

Thomas & Chess (1977)





APPROACH

A.K.A approach/withdrawal

High



Tend to approach new situations & environments with excitement and curiousity.

"Lucy - Trainee Educator"

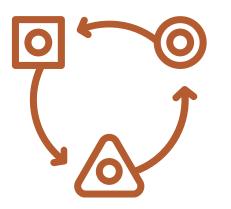
Low



Slow to warm up & more easily overwhelmed or distressed by new places, people or things.

"Tess - Experienced Educator"





ADAPTABILITY

High

Deals with change and transition relatively easily. Tends to be happy to go with the flow.

Low

Finds change & transitions highly challenging. Doesn't adjust easily to plans being altered.

"Nick - Accountant"





PERSISTENCE

High

Continues trying even when things are challening or difficult. Can be stubborn and time-consuming.

"Nina - Compliance Officer"

Low



Moves on to a new task if things become too difficult or are not working.

"Ollie - Program Coordinator"

Thomas & Chess (1977)





MOOD

High



Usually content, easy to please, cheerful and easy going. Happy go lucky.

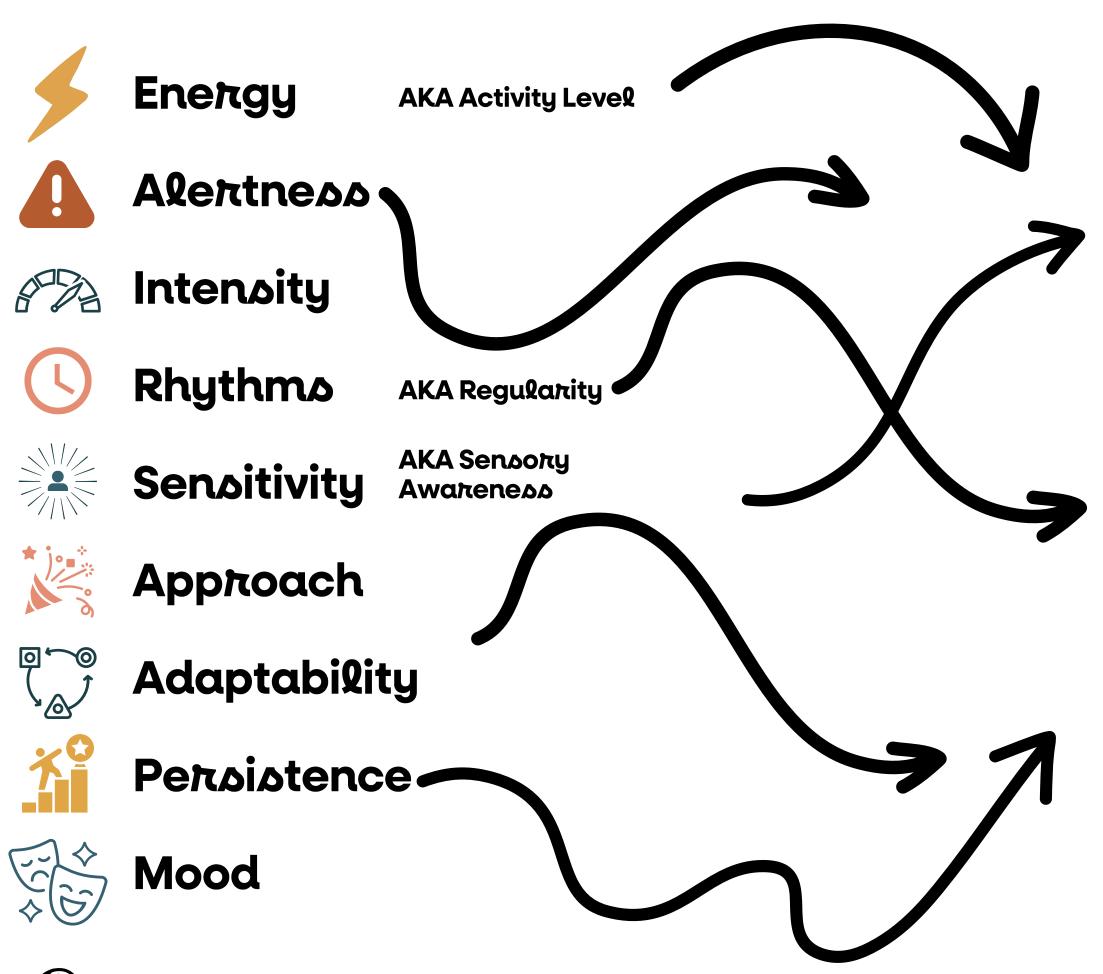


Low

Contemplative & deeply affected by the world around them. Experience emotions profoundly, even if they don't show it.

"Marcus - Musician"

"Jess - Vet"





EASY GOING

Easy Going or 'Dandelion' children are biologicall resilient, and tend to flourish despite adversity.

In some cases, these children grow up to be an inspiration, with people wondering at their ability to thrive considering their circumstances.



SLOW TO WARM

The Tulip Child is a Mix of Both Sensitive and Resilient

The medium-sensitivity child that falls somewhere in between the dandelion and orchid child.

They take their time observing their environment, after consideration they will slowly engage, always paying keen attention to their surroundings.



HIGHLY SENSITIVE Highly Sensitive or 'Orchid' children are more sensitive

Highly Sensitive or 'Orchid' children are more sensitive to both good and bad environments.

They are biologically reactive to their circumstances, and find it difficult to cope with stress.

They require special care, but under ideal circumstances, can grow into exceptional people who can see, understand and create things like no one else.



References: Jagiellowicz, Zarinafsar, & Acevedo, 2020; Ershova et al. 2020





EASY GOING

Easy Going or 'Dandelion' children are biologically resilient, and tend to flourish despite adversity.

In some cases, these children grow up to be an inspiration, with people wondering at their ability to thrive considering their circumstances.





HIGHLY SENSITIVE

Highly Sensitive or 'Orchid' children are more sensitive to both good and bad environments.

They are biologically reactive to their circumstances, and find it difficult to cope with stress.

They require special care, but under ideal circumstances, can grow into exceptional people who can see, understand and create things like no one else.





SLOW TO WARM

The Tulip Child is a Mix of Both Sensitive and Resilient

The medium-sensitivity child that falls somewhere in between the dandelion and orchid child.

They take their time observing their environment, after consideration they will slowly engage, always paying keen attention to their surroundings.







TEMPERAMENT QUESTIONNAIRE

DI	в а		B. I	~ 1	В. І	~
1 31	11//1	\mathbf{F}	13.1	-	 m	~
	171	_	1 14			-

TYPICAL BEHAVIOUR

SCORE

This isn't influenced by your job, life responsibilities, but how you would prefer to be.

REGULARITY

Rate from 1-5 how predictable you/they are.

PREDICTABLE - UNPREDICTABLE

You tend to follow regular rhythms. You get hungry at consistent times and go to bed around the same time each night. (Score = 1)

You have fluctuating daily patterns. Your hunger and sleep times vary from day to day, and you find routines less desirable or relevant (Score = 5)

You might easily notice smells, sounds, changes in temperature, light.

SENSITIVITY

Rate from 1-5 how sensitive you/they are (how aware/affected by the environment).

LOW - HIGH

You aren't very affected by sensory input. You can sleep through noise, and are generally unfazed by minor discomforts. (Score = 1)

You are more reactive to sensory stimuli. You need specific conditions to sleep, notice small discomforts easily and are overwhelmed in stimulating environments. (Score = 5)

Not what you feel like you "should" do, but your honest feelings and preferences

APPROACH

Rate from 1-5 how you/they react to new people or places.

EAGER - CAUTIOUS

You embrace new experiences easily, are comfortable meeting new people, adjust quickly in unfamiliar settings and are open to change. (Score = 1)

You often feel uneasy in new situations. You may become anxious when meeting unfamiliar people, uncomfortable in new environments and prefer predictability. (Score = 5)



TEMPERAMENT QUESTIONNAIRE

	DIMENSIONS	TYPICAL BEHAVIOUR	SCORE
This isn't influenced by your job, life responsibilities, but how you would prefer to be.	REGULARITY Rate from 1-5 how predictable you/they are. PREDICTABLE - UNPREDICTABLE	You tend to follow regular rhythms. You get hungry at consistent times and go to bed around the same time each night. (Score = 1) You have fluctuating daily patterns. Your hunger and sleep times vary from day to day, and you find routines less desirable or relevant (Score = 5)	3
You might easily notice smells, sounds, changes in temperature, light.	SENSITIVITY Rate from 1-5 how sensitive you/they are (how aware/affected by the environment). LOW - HIGH	You aren't very affected by sensory input. You can sleep through noise, and are generally unfazed by minor discomforts. (Score = 1) You are more reactive to sensory stimuli. You need specific conditions to sleep, notice small discomforts easily and are overwhelmed in stimulating environments. (Score = 5)	4
Not what you feel like you "should" do, but	APPROACH	You embrace new experiences easily, are comfortable meeting new people, adjust quickly in unfamiliar settings and are open to change. (Score = 1)	

You often feel uneasy in new situations. You may become anxious when meeting

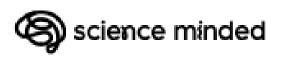
unfamiliar people, uncomfortable in new environments and prefer predictability.

Not what you feel lik you "should" do, but your honest feelings and preferences

Rate from 1-5 how you/they react to new people or places.

EAGER - CAUTIOUS

(Score = 5)



	B 4		1 200	
1 11	15.71	L 13		 13. I Sec.
	1141		u	 NS

TYPICAL BEHAVIOUR

SCORE

How easily you adjust to changes, transitions, or new routines.

new routines.

How long you stick with something especially when it's hard or not going your way.

Your usual emotional "set point"—are you more naturally sunny, serious, or somewhere in between?

ADAPTABILITY

Rate from 1-5 how adaptable you/they are during transitions.

MORE - LESS

PERSISTENCE

Rate from 1-5 how persistent you/they tend to be.

LOW - HIGH

You adjust easily to changes in routine, can start and stop activities (like meals or rest) with little stress and tend to wake up and wind down smoothly. (Score = 1)

You find transitions challenging and need time to switch between tasks. Being interrupted or rushed leaves you feeling irritable or unsettled (Score = 5)

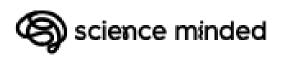
You can shift focus when interrupted, tolerate delays or changes in plans, and are generally flexible when things don't go as expected (Score = 1)

You stay intensely focused on your goals. You become frustrated if interrupted, struggle to let go of tasks or expectations, and have difficulty accepting changes. (Score = 5)

MOOD

Rate from 1-5 how serious or happy you/they tend to be. POSITIVE - SERIOUS You tend to be cheerful and upbeat most of the time, even when tired or hungry. Your default mood is generally light and easygoing. (Score = 1)

You come across as thoughtful or reserved. You are seen as calm, focused or introspective—sometimes described as having an "old soul" quality. (Score = 5)



	DIMENSIONS	TYPICAL BEHAVIOUR	SCORE
How easily you adjust to changes, transitions, or new routines.	ADAPTABILITY Rate from 1-5 how adaptable you/they are during transitions. MORE - LESS	You adjust easily to changes in routine, can start and stop activities (like meals or rest) with little stress and tend to wake up and wind down smoothly. (Score = 1) You find transitions challenging and need time to switch between tasks. Being interrupted or rushed leaves you feeling irritable or unsettled (Score = 5)	3
How long you stick with something— especially when it's hard or not going your way.	PERSISTENCE Rate from 1-5 how persistent you/they tend to be. LOW - HIGH	You can shift focus when interrupted, tolerate delays or changes in plans, and are generally flexible when things don't go as expected (Score = 1) You stay intensely focused on your goals. You become frustrated if interrupted, struggle to let go of tasks or expectations, and have difficulty accepting changes. (Score = 5)	2
Your usual emotional "set point"—are you more naturally sunny,	MOOD Rate from 1-5 how serious or	You tend to be cheerful and upbeat most of the time, even when tired or hungry. Your default mood is generally light and easygoing. (Score = 1)	3

You come across as thoughtful or reserved. You are seen as calm, focused or

introspective—sometimes described as having an "old soul" quality. (Score = 5)

Your usual emotional "set point"—are you more naturally sunny, serious, or somewhere in between?

happy you/they tend to be.

POSITIVE - SERIOUS

SCORES OF 9-26

SCORES OF 27-36

SCORES OF 37-45

29



EASY GOING

SLOW-TO-WARM

HIGHLY SENSITIVE

"Flexible & Easy Going"

"Shy, Thoughtful & Obsetvant"

"Deeply Feeling & Passionate"

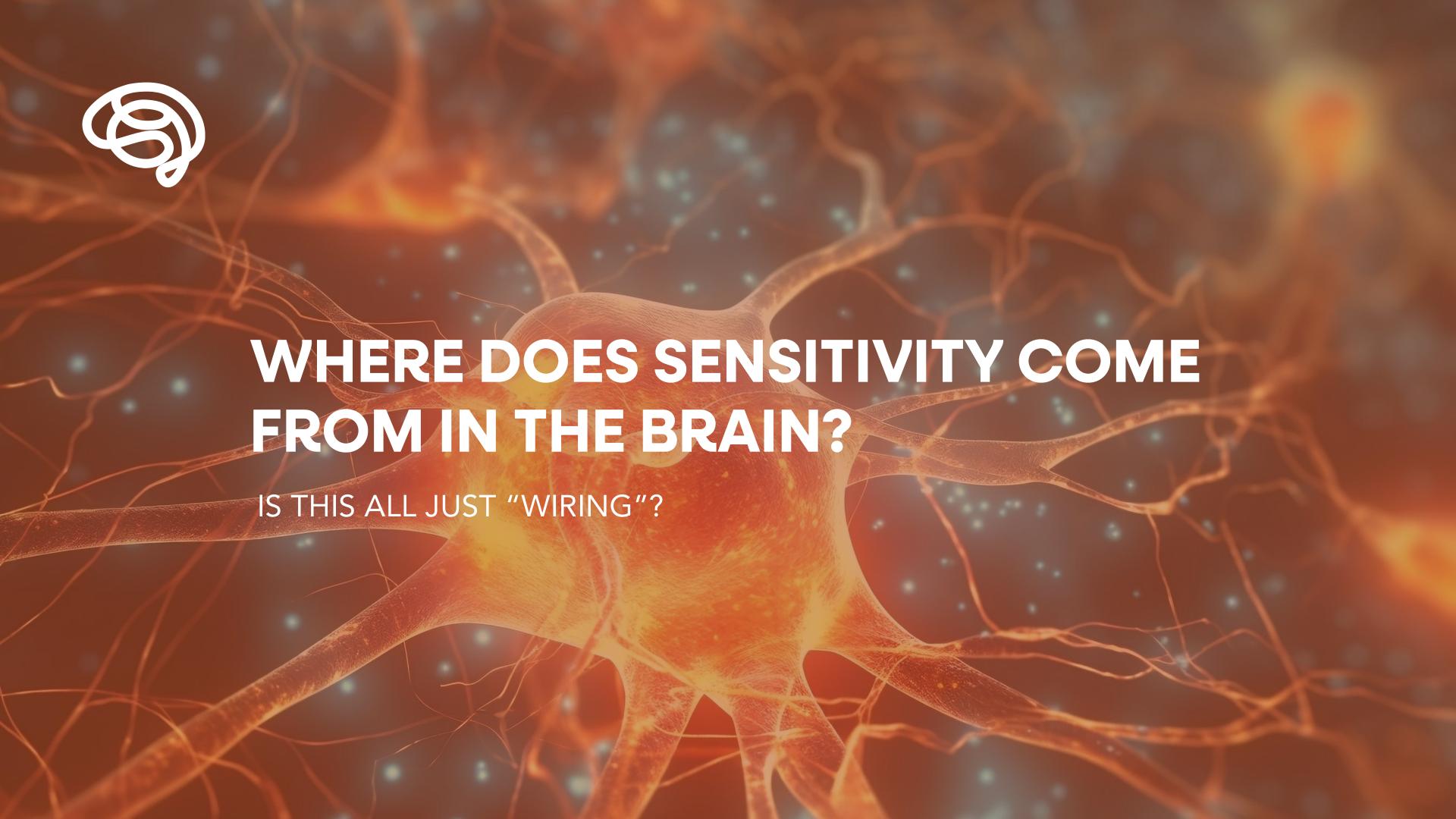
SCORES OF 9-26

SCORES OF 27-36

SCORES OF 37-45

29



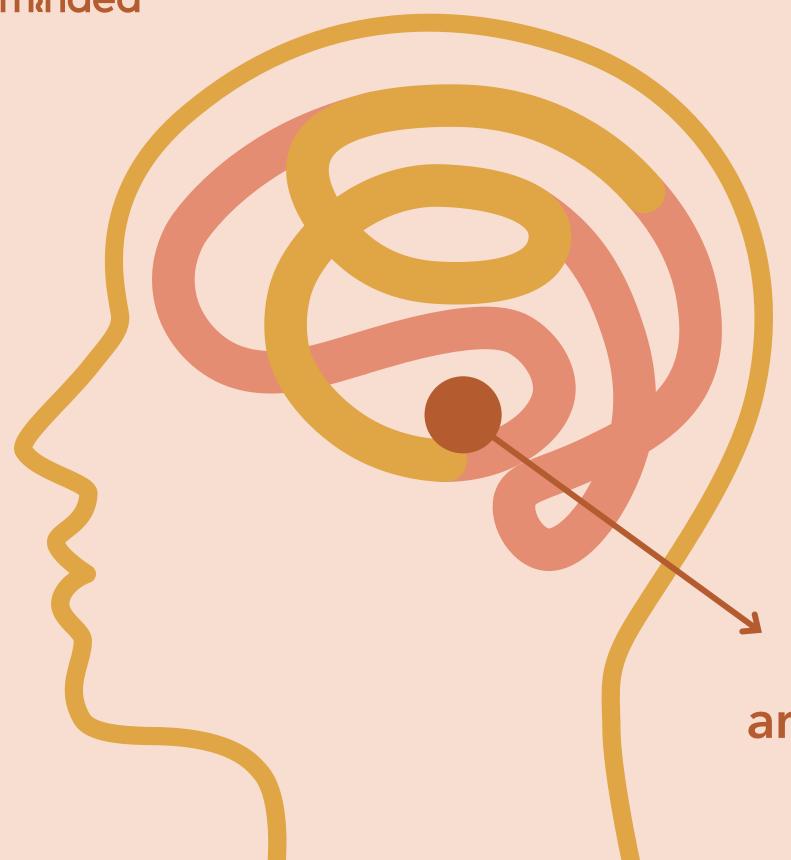






WHERE IN THE BRAIN DOES THIS SENSITIVITY COME FROM?





OUR BRAIN'S ALARM SYSTEM

- Our amygdala helps us <u>detect threats</u> and respond to stress.
- In more sensitive children, this area is more active, meaning they may react more strongly to loud noises, sudden changes, or stressful situations even if others wouldn't.
- Their brain is more frequently scanning for <u>"Is this safe?"</u>
- They require <u>more</u> reassurance, <u>more</u> physical comfort,

more active amygdala







OUR FEELINGS CENTRE

- The brain region helps us notice what's happening inside
 <a href="https://our.nie.gov
- Highly sensitive kids often have stronger activity here, which means they may be <u>more aware</u> of their own emotions and physical sensations.
- They may be more aware of hunger cues, may feel physical pain more intensely, <u>more affected</u> by their body's cues

stronger reactions in the insular cortex





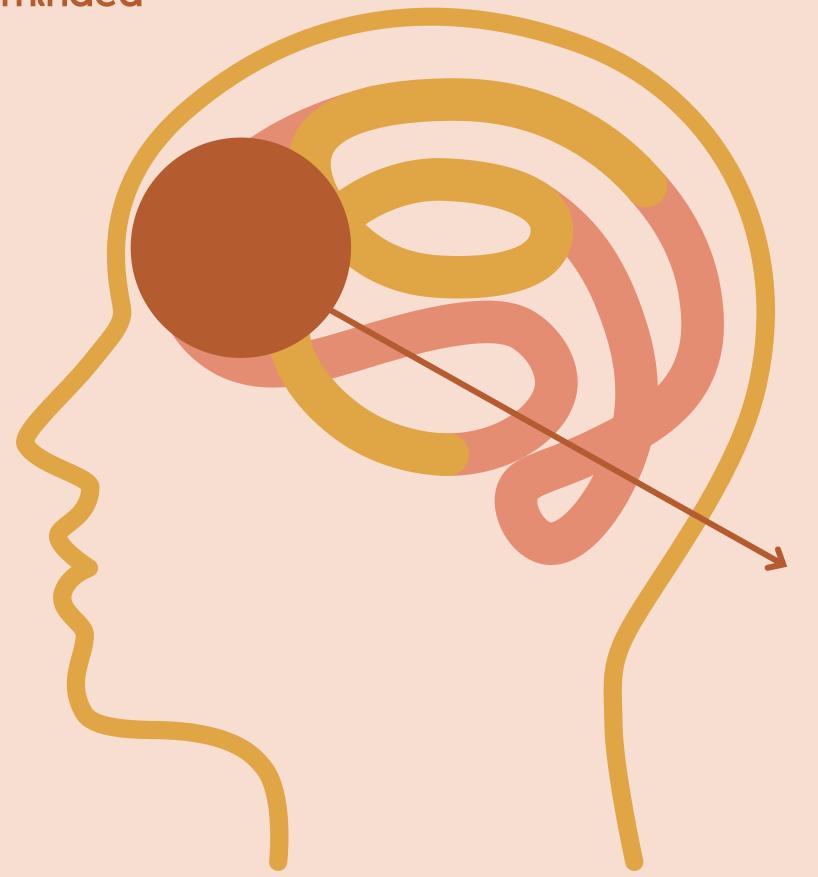
THE EMPATHY NETWORK

- This system helps us <u>understand and "mirror"</u> what others are feeling.
- More sensitive kids have a more active mirror neuron system, which means they often <u>pick up more</u> on subtle emotional cues and <u>feel things deeply</u> with others.
- This can make them wonderfully <u>empathetic</u>, but also <u>more easily overwhelmed</u> by others' emotions.

mirror neurons







THE REGULATION HUB

- The prefrontal cortex helps us stay <u>calm</u>, <u>solve</u> problems, and <u>control</u> impulses.
- In highly sensitive children, this part of the brain is often **working overtime** to manage more sensory input, bigger feelings and make sense of emotional experiences.
- Because it's working harder, it can <u>go "offline" more readily</u>, making it harder for these kids to stay regulated without adult support.

more effort in pre-frontal cortex



Reference: Acevedo et al 2014

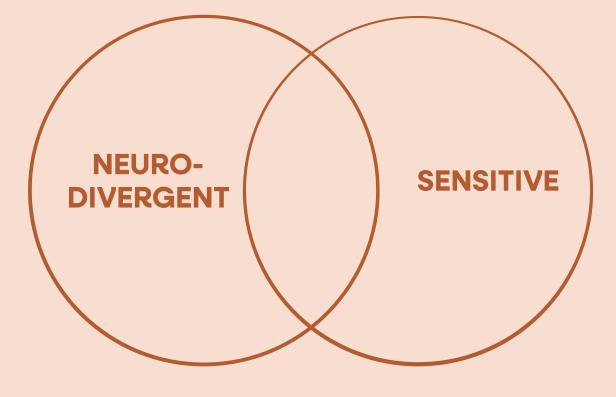




SENSITIVITY & NEURODIVERSITY

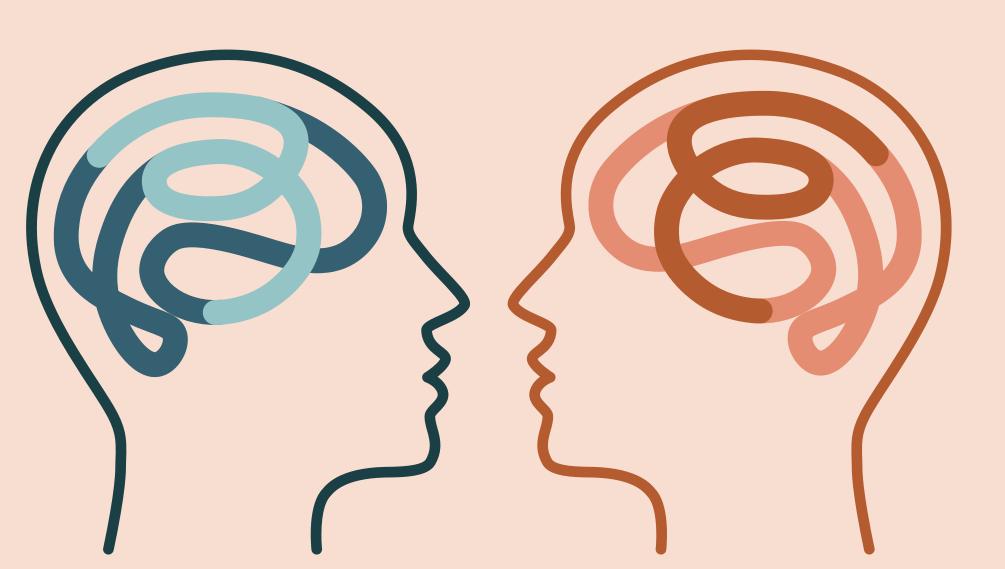
- Some of the <u>same brain patterns</u> found in neurodivergent people, are also found in highly sensitive
- There may be a <u>biological connection</u> between sensitivity and neurodiversity. Researchers are still learning about this.
- <u>Not the same</u> but they may need <u>similar supports</u>: calm spaces or gentle transitions.

same same, but different



Reference: Greven 2022

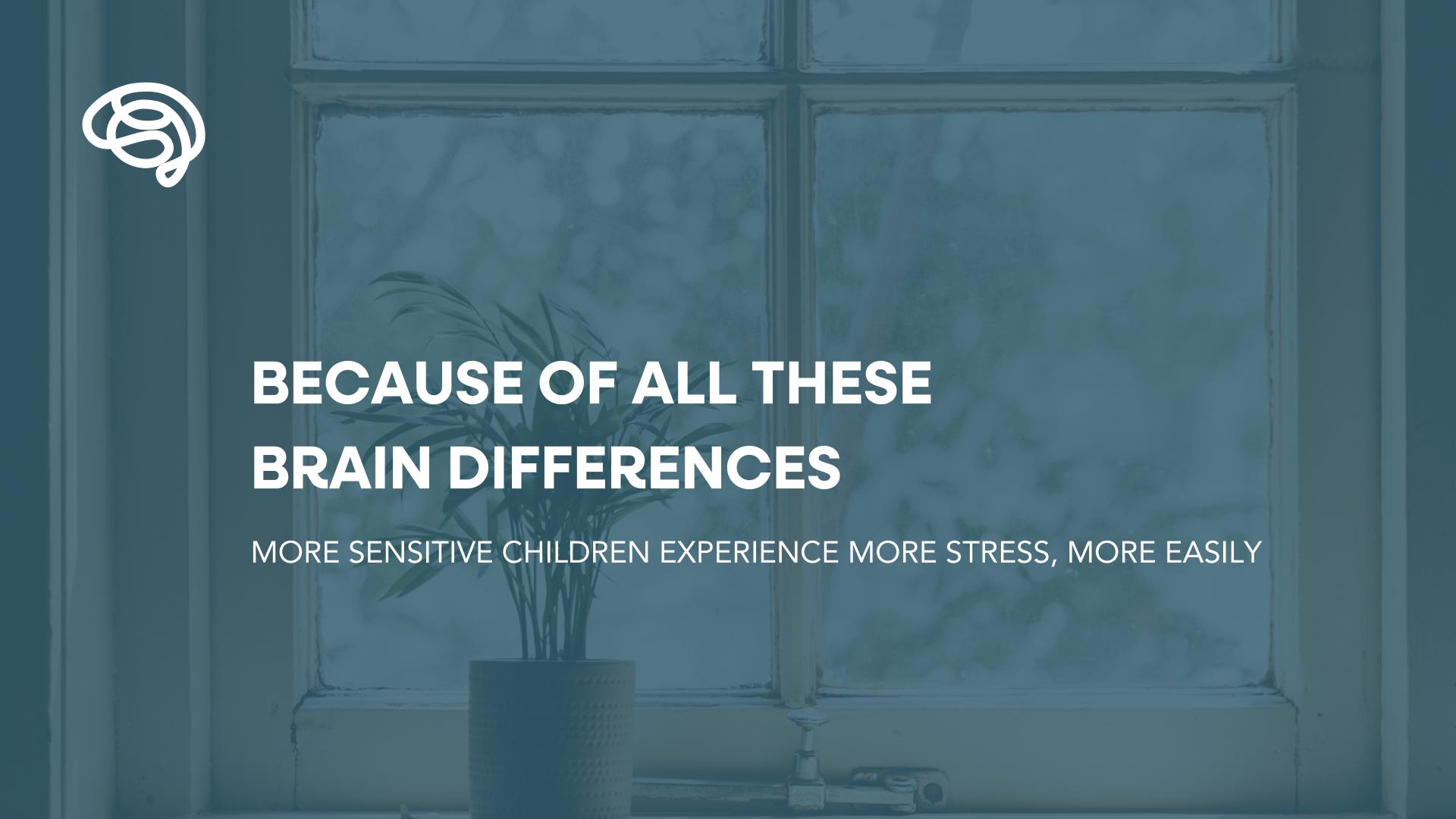




SENSITIVITY & GENDER

- Short Answer: No. Sensitivity is equally present in boys and girls.
- But how sensitivity shows up can look different across genders, and the way it's perceived and responded to by adults is deeply shaped by social expectations.
- Boys might show it differently, often through action ("behavioural issues", "defiance" or "aggression") rather than words or tears.
- Boys may "act out" rather than cry or seek comfort, this means they're often labelled as "bad" or "naughty" and their **needs for co-regulation go unmet.**

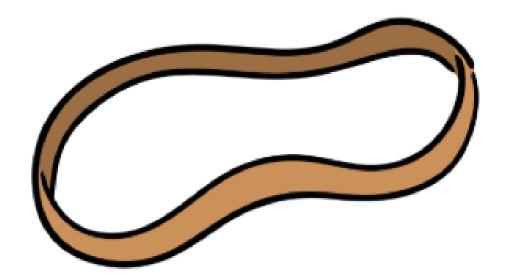
same same, but different





The "window of tolerance" is the space within which we are able to easily tolerate challenges and stress.

I like to think of it as a rubber band.

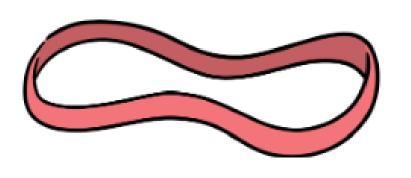


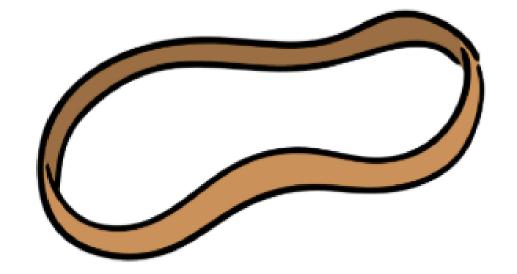
References: Corrigan, Fisher, & Nutt 2011; Hershler 2021

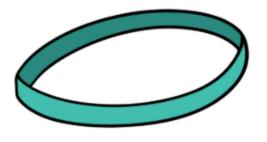


We are all born with a different rubber band.

This is largely due to our temperament.



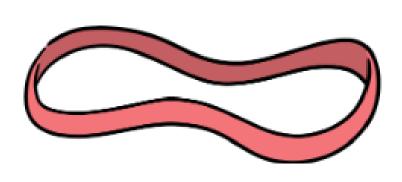


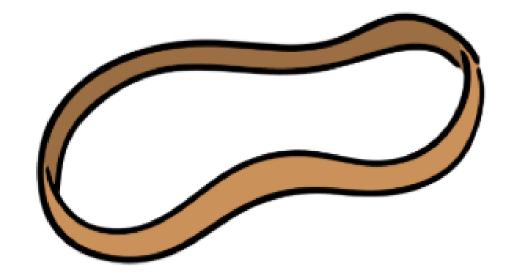


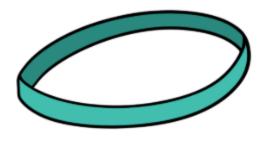
References: Corrigan, Fisher, & Nutt 2011; Hershler 2021



Understanding temperament is about how we help ALL children (and especially more sensitive children) slowly and gently ease and stretch their bands, so they experience less tension (stress) and can better cope with challenges.







References: Corrigan, Fisher, & Nutt 2011; Hershler 2021



THAT'S ALL GREAT... BUT LET'S BE HONEST, SOME KIDS ARE BLOODY HARD WORK

THE REAL QUESTION IS: WHY?



Evolutionary History

THAT'S ALL GREAT...
BUT LET'S BE HONEST, SOME
KIDS ARE BLOODY HARD
WORK

THE REAL QUESTION IS: WHY?

Survival Instincts

Safety of the group











Survival Instincts

Safety of the group



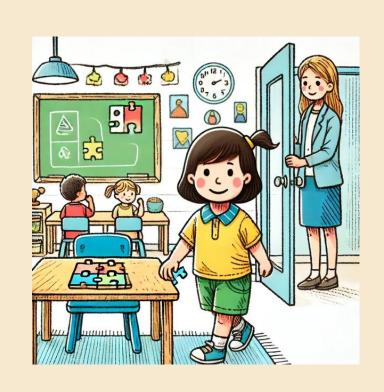




How a well a child's temperament matches the expectations of their environment and the temperaments of the people in that environment.







Kids like Frankie almost always fit their environment, cause they're "Easy"

How a well a child's temperament matches the expectations of their environment and the temperaments of the people in that environment.







Kids like Frankie almost always fit their environment, cause they're "Easy"

How a well a child's temperament matches the expectations of their environment and the temperaments of the people in that environment.



Kids like Luca, if they're supported can flourish. If not, they might struggle and wilt





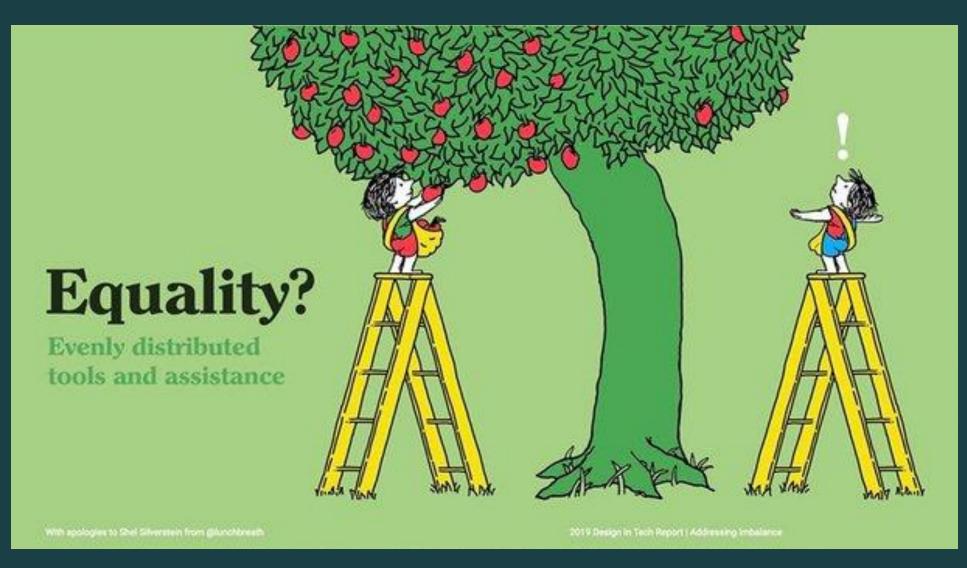
Kids like Frankie almost always fit their environment, cause they're "Easy"

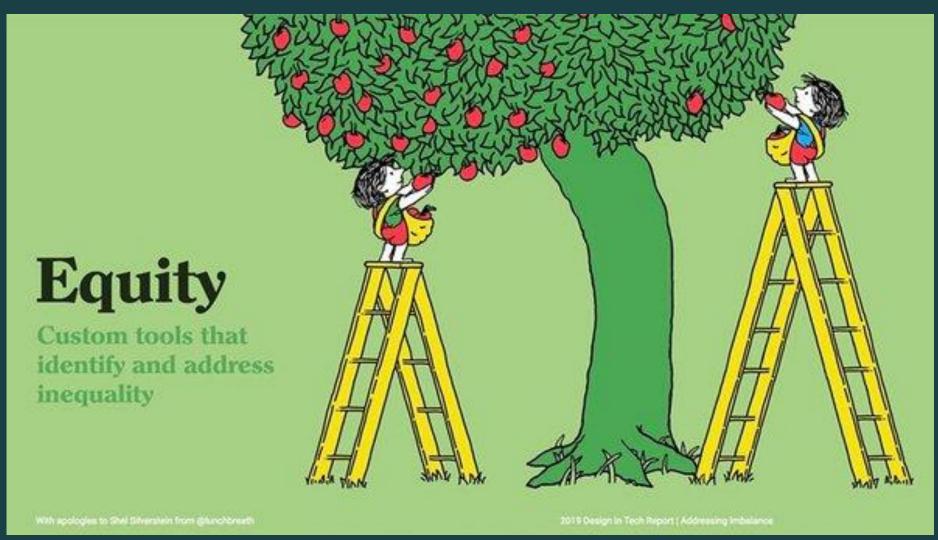
How a well a child's temperament matches the expectations of their environment and the temperaments of the people in that environment.



Kids like Luca if they're supported can flourish. If not, they might struggle and wilt

TEMPERAMENT AS AN EQUITY ISSUE





QA6.2.2



HOW TO BALANCE DIFFERENT TEMPERAMENTS IN SHARED SPACES

YOU CAN'T RUN FOUR DIFFERENT PROGRAMS



BUT YOU CAN CREATE ONE THAT FLEXES TO MEET THEM ALL.



WE DESIGN STRATEGIES THAT WORK FOR EVERYONE

OA1.1.2 • ONE SIZE DOESN'T FIT ALL

• GROUP ACTIVITIES WITH LAYERED ACCESS

• PREDICTABLE ROUTINES & RITUALS

• FLEXIBLE SEATING & SENSORY SUPPORTS

• INDIVIDUALISE WITHOUT SINGLING OUT

• EMOTIONAL SAFETY IS THE FOUNDATION





TAILORING THE ENVIRONMENT TO FIT THE CHILD

EASY GOING

- Leadership opportunities
- Stretch Challenges
- Reflective check-ins

QA1.3.2 QA1.2.3 QA1.2.2 QA5.2.1 QA5.2.2





TAILORING THE ENVIRONMENT TO FIT THE CHILD

EASY GOING

SLOW-TO-WARM

- Leadership opportunities
- Stretch Challenges
- Reflective check-ins

- GRADUAL EXPOSURE
- Predictability
- Gentle encouragement

QA1.3.2 QA1.2.3 QA1.2.2 QA5.2.1 QA5.2.2



QA1.1.3 QA1.2.1 QA3.2.1

QA5.1.1 QA5.1.2





TAILORING THE ENVIRONMENT TO FIT THE CHILD

EASY GOING

SLOW-TO-WARM

HIGHLY SENSITIVE

- Leadership opportunities
- Stretch Challenges
- Reflective check-ins

- Gradual exposure
- Predictability
- Gentle encouragement

- Movement breaks
- Sensory outlets
- Structured choices

QA1.3.2 QA1.2.3 QA1.2.2 QA5.2.1 QA5.2.2



QA1.1.3 QA1.2.1 QA3.2.1 QA5.1.1 QA5.1.2



QA1.2.3 QA2.1.3 QA3.2.1 QA3.2.2 QA5.1.1





UNDERSTANDING SENSITIVITY

- Share these messages with parents, colleagues
- Prioritise professional development on sensitivity co-regulation, neurodiversity and trauma.

Download and share my free resources (QR code at the end of the presentation)









SLOW DOWN

To get more, we need to do less

- Sensitive children process more input
 - slower environments reduce overwhelm
- Fewer transitions = more emotional regulation
- Deep play needs time rushed schedules interrupt valuable learning
- Less rushing = more attuned connection between child & educator
- Stillness nurtures imagination, problem solving, and emotional growth



QA5.2.2 QA1.1.3



EMOTIONAL CO-REGULATION





³ SUPPORTING SENSITIVITY

EMOTIONAL CO-REGULATION

Things that often help include:

1. GET DOWN TO THEIR LEVEL

What it looks like: Kneeling or sitting so you're eye-to-eye with the child, offering presence and calm.

2. USE A CALM, STEADY TONE OF VOICE

What it looks like: Speaking slowly and gently, even when a child is distressed.





QA5.2.2 QA2.1.1



EMOTIONAL CO-REGULATION

Things that often help include:

But for Sensitive Kids...

1. GET DOWN TO THEIR LEVEL

What it looks like: Kneeling or sitting so you're eye-to-eye with the child, offering presence and calm.

2. USE A CALM, STEADY TONE OF VOICE

What it looks like: Speaking slowly and gently, even when a child is distressed.

- Maintain soft eye contact or allow them to look away.
- Let them control proximity some <u>may need space first</u>, then closeness.

- Avoid sudden shifts in tone or facial expressions sensitive kids pick up on subtle cues.
- Be mindful of metaphor, irony, sarcasm or mixed messages

QA5.2.2

QA2.1.1



EMOTIONAL CO-REGULATION

Things that often help include:

3. BE A CALM, STEADY PHYSICAL PRESENCE

What it looks like: Sitting near, staying grounded, and simply being there while the child calms down.

4. BREATHE TOGETHER

What it looks like: Taking slow, exaggerated breaths to model calming your own body.







EMOTIONAL CO-REGULATION

Things that often help include:

But for Sensitive Kids...

3. BE A CALM, STEADY PHYSICAL PRESENCE

What it looks like: Sitting near, staying grounded, and simply being there while the child calms down.

4. BREATHE TOGETHER

What it looks like: Taking slow, exaggerated breaths to model calming your own body.

- Avoid hovering or touching unless invited.
- A soft object (like a weighted toy or cushion) might feel safer than a hand on the shoulder.

- Make it visual or playful (e.g. "smell the flower, blow out the candles").
- Invite them to join, but don't insist they may need to observe first.

QA5.2.2

QA2.1.1



EMOTIONAL CO-REGULATION

Things that often help include:

5. NAME THE EMOTION

What it looks like: "It looks like you're feeling really frustrated right now."

6. OFFER TIME AND SPACE (WITHOUT DISCONNECTION)

What it looks like: Saying, "I'm here when you're ready," and staying nearby.







EMOTIONAL CO-REGULATION

Things that often help include:

5. NAME THE EMOTION

What it looks like: "It looks like you're feeling really frustrated right now."

6. OFFER TIME AND SPACE (WITHOUT DISCONNECTION)

What it looks like: Saying, "I'm here when you're ready," and staying nearby.

But for Sensitive Kids...

- Keep it gentle and curious ("I wonder if you're feeling...").
- Avoid over-labelling in the heat of the moment some sensitive children may feel <u>overwhelmed by too much</u> <u>talking.</u>
- It make take them longer to regulate but still need your emotional availability.
- Let them know you're not going anywhere, even if they need distance.

QA5.2.2

QA2.1.1



EMOTIONAL CO-REGULATION

Things that often help include:

7. USE STORY & PLAY TO REVISIT TRICKY MOMENTS LATER

What it looks like: Using puppets, dolls or drawings to help reflect on what happened, without shame.

8. RESPECT AND REPAIR AFTER RUPTURE

What it looks like: "That was a hard moment. You're still a good kid. Let's try again."







EMOTIONAL CO-REGULATION

Things that often help include:

7. USE STORY & PLAY TO REVISIT TRICKY MOMENTS LATER

What it looks like: Using puppets, dolls or drawings to help reflect on what happened, without shame.

8. RESPECT AND REPAIR AFTER RUPTURE

What it looks like: "That was a hard moment. You're still a good kid. Let's try again."

But for Sensitive Kids...

- Keep language soft and playful avoid phrases like "you were being bad or naughty."
- Focus on safety, not blame: "The bear felt scared when things got loud."

- For sensitive kids, even small ruptures can feel huge.
- Repair gently, and don't rush them to "move on."
- They may need reassurance more than once.



THE HEART OF THE WORK

WHAT IT'S REALLY ABOUT:

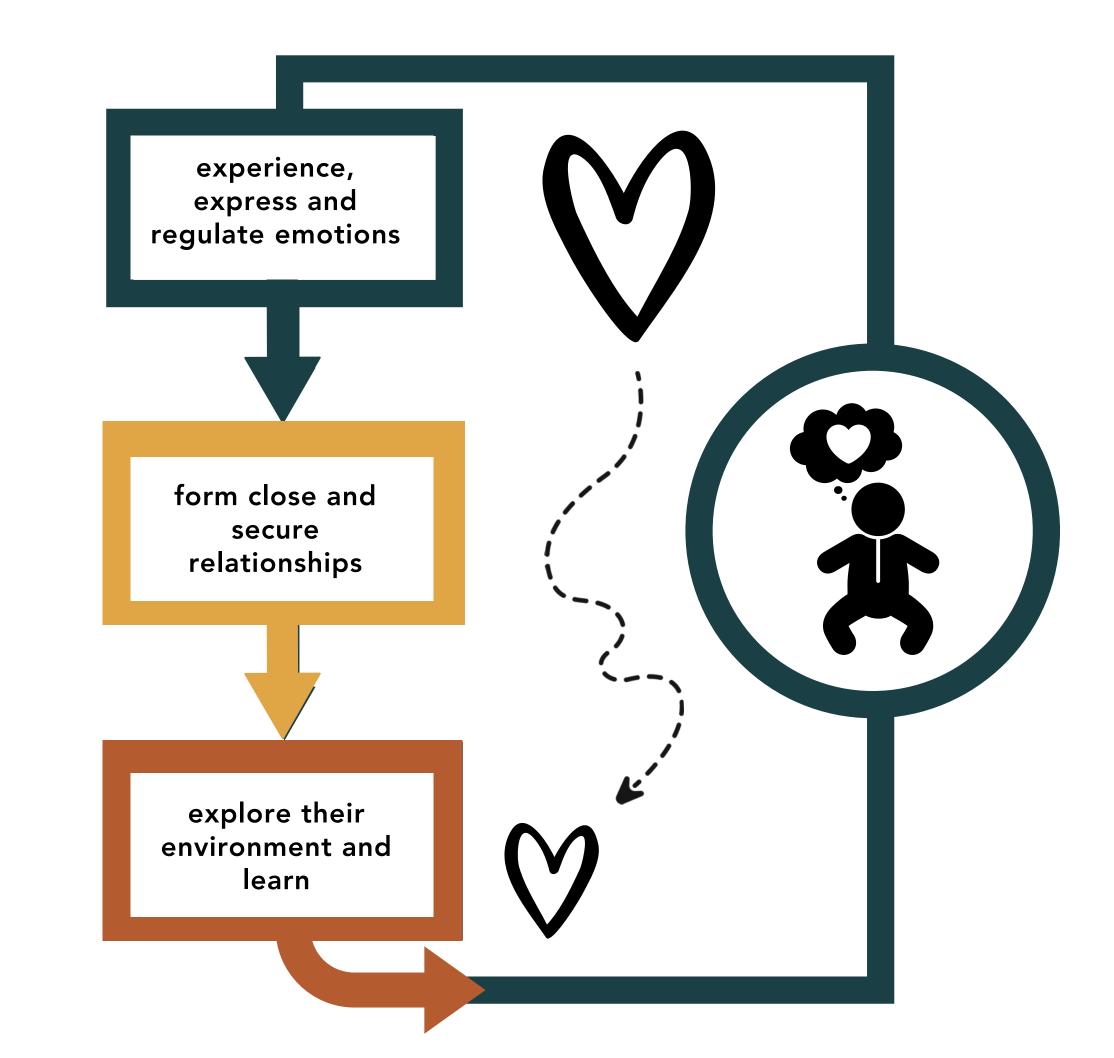
- Seeing all children, especially the sensitive ones
- Meeting emotional needs
- Classrooms where connection comes first

WHY IT MATTERS:

- Supports children's emotional and mental health
- Builds relationships that <u>change lives</u>
- <u>Calmer classrooms</u> for everyone

WHYIT MATTERS

Truly connecting with a child is what creates their mental health.



The single most important thing you can do to support highly sensitive children is:

CONNECTION



The single most important thing you can do to support highly sensitive children is:

CONNECTION

Not control.

Not perfect routines.

Not the right strategy.

Not trying to fix their feelings.

Just real, warm, attuned connection.

Because connection is what helps their nervous system feel safe.



And safety is the foundation for everything else - regulation, resilience, and growth.



Connection first.

Curiosity over control.

Never underestimate the power of the work you do.





THANK YOU

Connection first.

Curiosity over control.

Never underestimate the power of the work you do.







scienceminded.org



hello@scienceminded.org



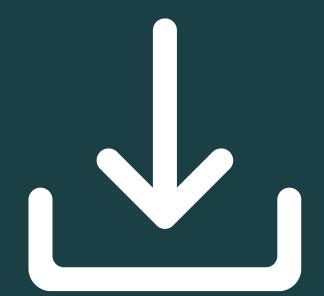


Facebook.com/sciencemindedparenting



LEARN MORE





You can download a version of these presentation slides on my website by scanning this QR code:



