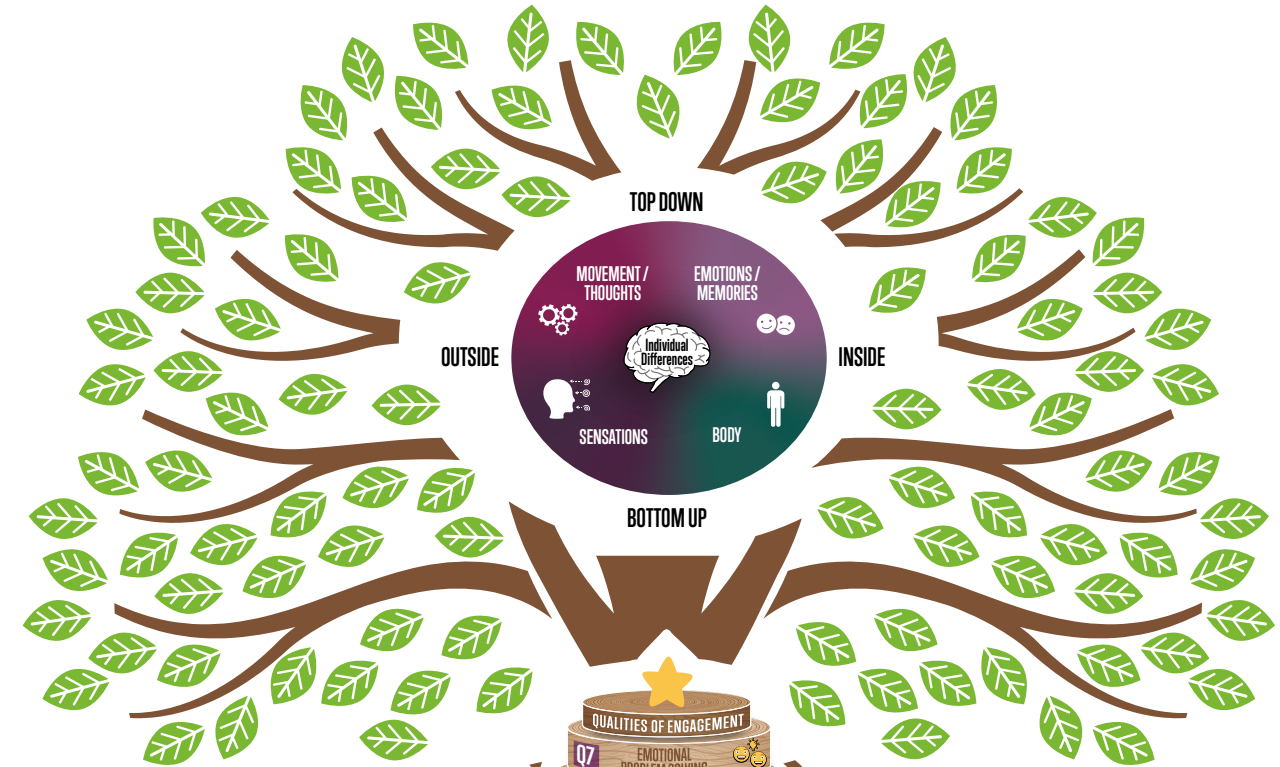


THE NEURORELATIONAL FRAMEWORK'S Three Steps to Resilience

STEP 3

INTEGRATED BRANCHES

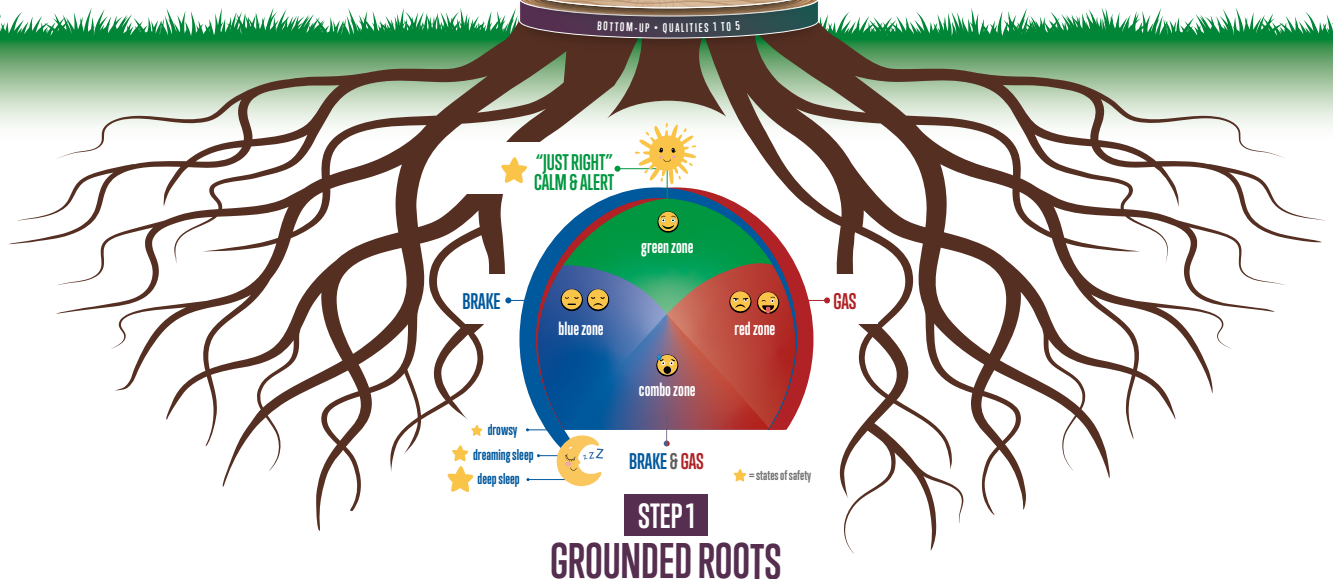


STEP 2
SUPPORTIVE
TRUNK



NRF  **RRI**
NEURORELATIONAL FRAMEWORK INSTITUTE
RESEARCH TO RESILIENCE

Adapted by GRIT from unpublished NeuroRelational Framework (NRF) Manual by Connie Lillas, 2020.
Graphic Design by Broken Arrow Solutions Inc.



THE NEURORELATIONAL FRAMEWORK'S Three Steps to Resilience

The NRF uses the metaphor of a tree to represent the function and development of the brain and the NRF's three clinical steps.

STEP 1 THE GROUNDED ROOTS

Like the roots of a tree our nervous system needs to be 'grounded'. Roots that are deep and spread out provide stability to the tree and support flexible, healthy growth of the trunk and branches. Our nervous system needs to be stable and flexible like tree roots. A balance in our nervous system allows us to have a deep and restful sleep and maintain a calm alert state during the day. This promotes optimal development and brain and body function. A healthy nervous system allows us to have adaptive responses to stress, as well as to recover from stress. Step One in the diagram has a twenty-four-hour sleep-wake cycle arc. Step One assesses the type of stress patterns, and whether one is in adaptive or toxic stress.

STEP 2 THE SUPPORTIVE TRUNK

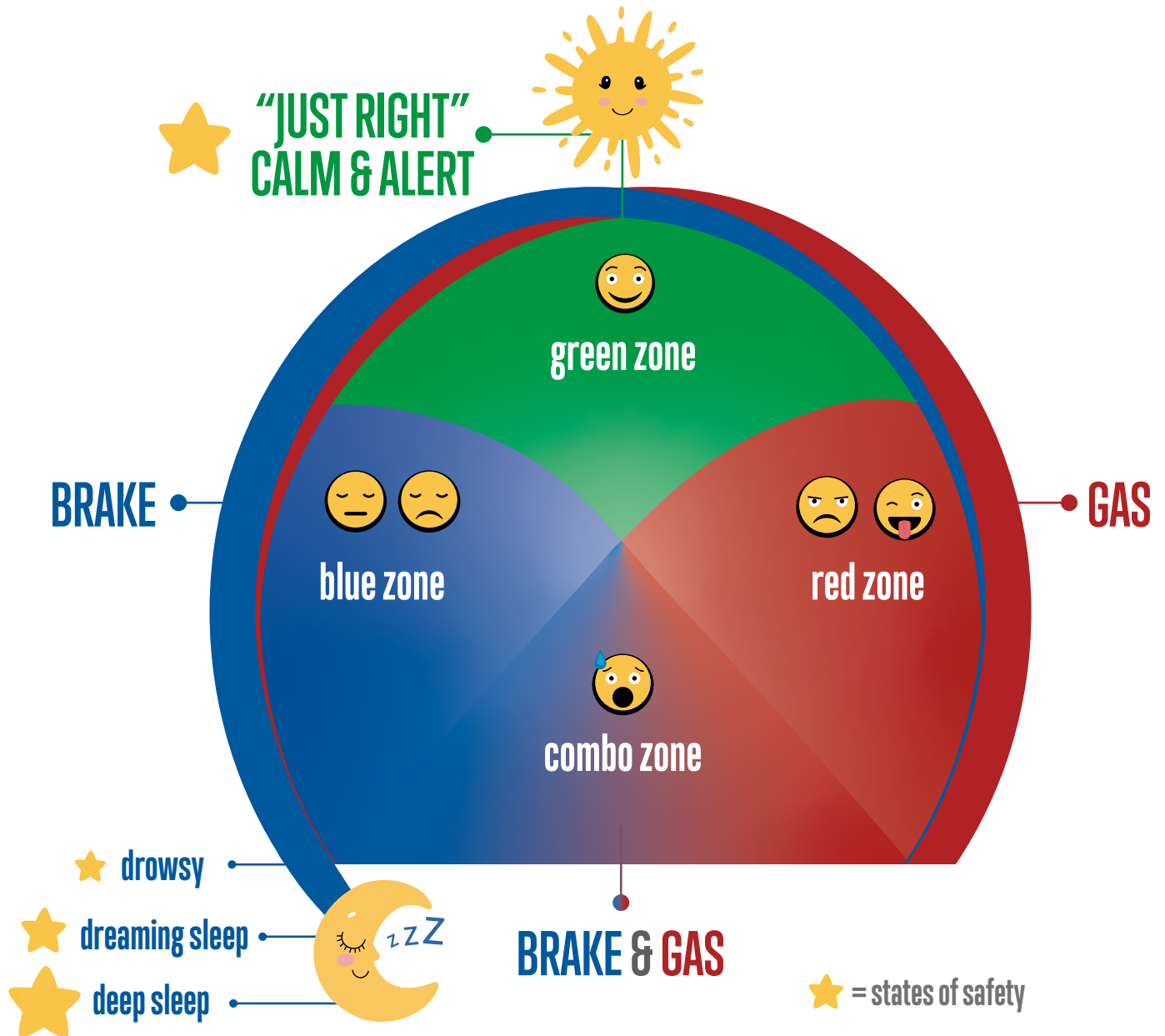
As the trunk of the tree grows it develops rings and becomes thicker and sturdier to support the branches of the tree. It connects the roots to the branches. Interactions between children and adults with back and forth circles of communication, or 'serve and return' cycles, support the development of healthy relationships. The more children share joy with caregivers, the more the circles support the development of positive memories of connecting with others. Like the circular rings of a tree trunk that reflect healthy growth of a tree, frequent and joyful serve and return circles lead to healthy brain development. Step Two in the diagram has a pyramid-shape illustrating Qualities of Engagement between two people. Step Two assesses how any two people within the family system are maturing or functioning in their relational capacities.

STEP 3 THE INTEGRATED BRANCHES

A healthy tree has lush strong branches and every tree is unique in how the branches, twigs, stems, and leaves grow. Branches carry water to the leaves and the nutrients from the leaves to the rest of the tree. The branches of the tree represent four integrated brain networks, or systems, of the NRF. The four brain networks are Body, Sensations, Emotions/Memories, and Movement/Thoughts. These four brain networks are a way to understand each person's unique individual differences and brain architecture. The four brain networks organize how we interact with our inside world and the outside world. We are showing the four brain systems with an oval diagram. Step Three assesses individual differences through four stories, which collect a breadth and depth of information on these brain networks. Step Three provides a guide for each person's journey towards improving their stress patterns and the quality of their relationships.

THE NEURORELATIONAL FRAMEWORK'S
Sleep-Wake States Arc
SUPPORTS HEALTH

STEP
1
ROOTS



THE NEURORELATIONAL FRAMEWORK'S Sleep-Wake States Arc

STEP 1 ROOTS

This picture shows how our nervous system affects our behaviour every day.

The part of the picture with the moon shows that we need to have good quality and length of sleep. We all need sleep to function well during the day. There are three parts to sleep – when we are drowsy, deep sleep, and dream sleep. The stars represent safety. When we feel safe, we can sleep well. When you sleep in a new place for the first night you may not feel safe and may wake up when you hear noises. Often, you relax the next night, knowing that the noises will not harm you.

When we are safe during the day, we can function in the green zone where we feel 'just right.' We are calm and alert and can learn and do our work. In the green zone, we have a healthy balance between the brake pedal (blue stripe) and the gas pedal (red stripe) in our nervous system. The healthy brake pedal with the right amount of gas keeps us green and helps us to have a variety of experiences and emotions. We are still calm, present, and engaged with others and the world around us.

Throughout the day we may get stressed. Once we start to lose balance in the green zone, the gas pedal can start to take over, the brake pedal can take over, or the gas and the brake can go on at the same time. When the gas pedal is on, we are in the red zone and speed up inside. When the brake is on, we are in the blue zone and slow down. Sometimes the brake and gas can be on together; we call this the combo zone. We have a jittery, nervous feeling in our bodies. These three reactions of our brain and body are called stress responses. It is important to know that these stress responses are all healthy and normal. It is good to have all three. We call this adaptive stress.

HERE IS AN EXAMPLE OF DRIVING A CAR:

We should be in the green zone when we are driving a car, paying attention and alert. We have all driven blocks or miles and not remembered that chunk of the trip. This is driving in the blue zone. We also all have gotten irritated and felt our bodies speed up inside when someone has cut us off in traffic. We may drive too fast, listening to music we like. In these two examples, we are driving in the red zone. If we hit a wet or icy road, we may step on the brake then gas pedal, back and forth. But in our bodies, brakes and gas actually go on *together at the same time*. We feel a nervous combination in our bodies which is the combo zone. These are all helpful adaptations to driving; the key is our getting back to green.

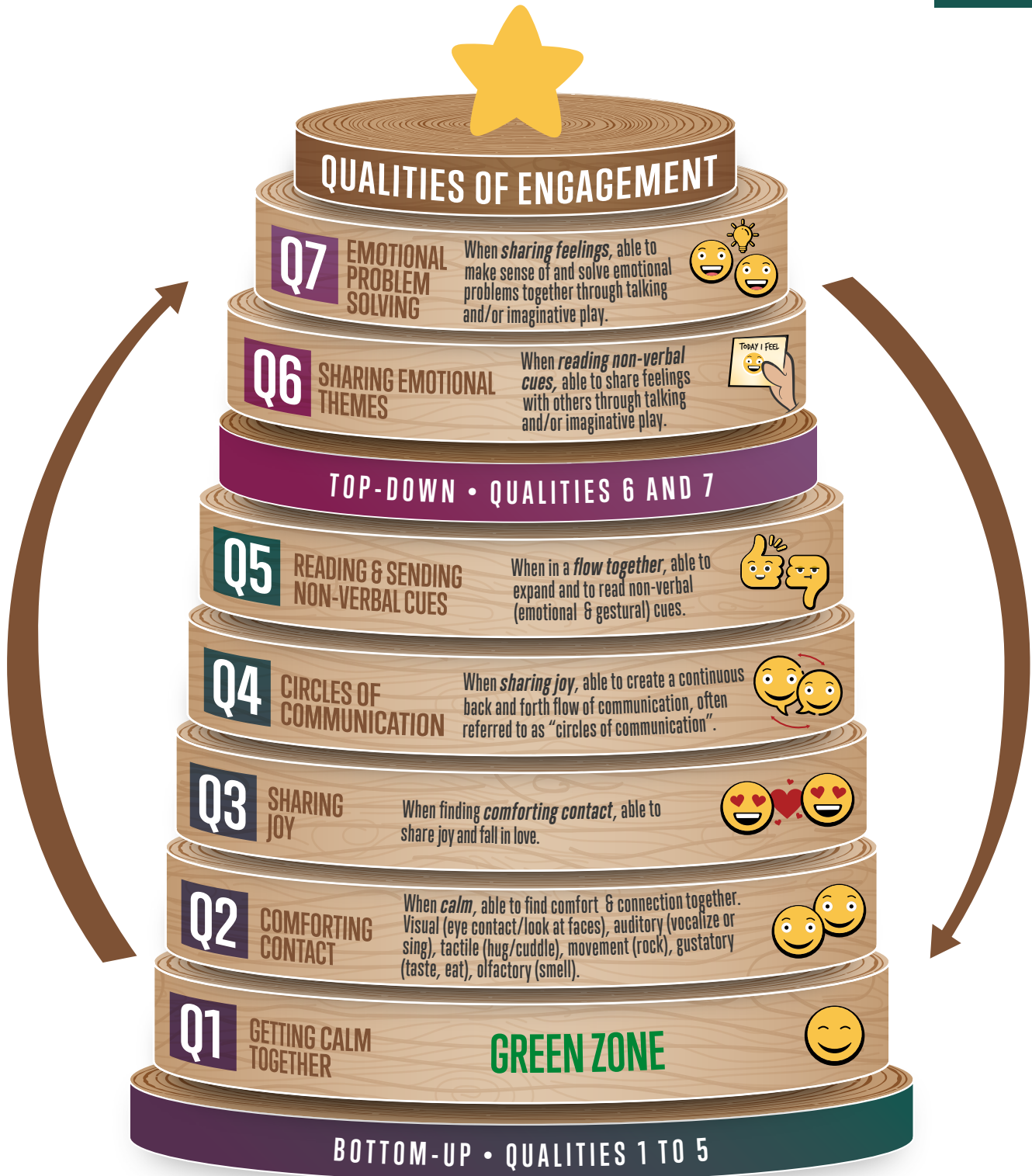
EXAMPLE



THE NEURORELATIONAL FRAMEWORK'S Qualities of Engagement

SUPPORT SOCIAL-EMOTIONAL DEVELOPMENT

STEP 2
TRUNK



Adapted SE Milestones by C Lillas /
Interdisciplinary Training Institute, 2014
Rev. 10.24.2018

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From Greenspan, 1985; Greenspan & Wieder, 1988;
Asix V from the Diagnostic Classification (R): 0-3

MAY 2021

THE NEURORELATIONAL FRAMEWORK'S Qualities of Engagement

STEP 2 TRUNK

The trunk of the tree is shaped into a pyramid.

Interaction without words is the foundation of all human communication which are the bottom five slices of the trunk. Each slice has the label of the quality of how we engage with each other. Each slice supports the next one. Getting green together sets the pair up for finding sensory comfort together. This comfort can come through any sensation - from sharing sounds and singing, to rocking together, and many others. What is important is that shared sensory experiences lead to joy. Once joy is shared, we want that joy to flow for longer and longer periods of time. As that flow of back and forth joy deepens, the partners begin to anticipate and watch each other's facial expressions and gestural cues. As children develop, these body gestures occur with sounds that turn into words. Words become the next form of communication so that we can share our feelings and ideas with each other. Lastly, we want these feelings to turn into stories so we know why we feel happy, sad, mad, or scared, and we can emotionally problem solve with another person when we need to. The last two qualities represent communication capacities with pretend play and language.

The pyramid is organized into bottom-up and top-down qualities. The term bottom-up refers to any communication that occurs without words and any learning that occurs through doing things together. Bottom-up memories are how we felt in our bodies, sensations we felt from the world around us, and emotions we felt in the past. The term top-down refers to communication that occurs with words and learning that occurs through talking with each other. Top-down memories are those that we have words for and can tell stories about with each other. These bottom-up and top-down distinctions matter when it comes to personalizing the type of intervention that matches your child and your family's needs. The arrows in the diagram show that the bottom-up and top-down qualities are always influencing each other.



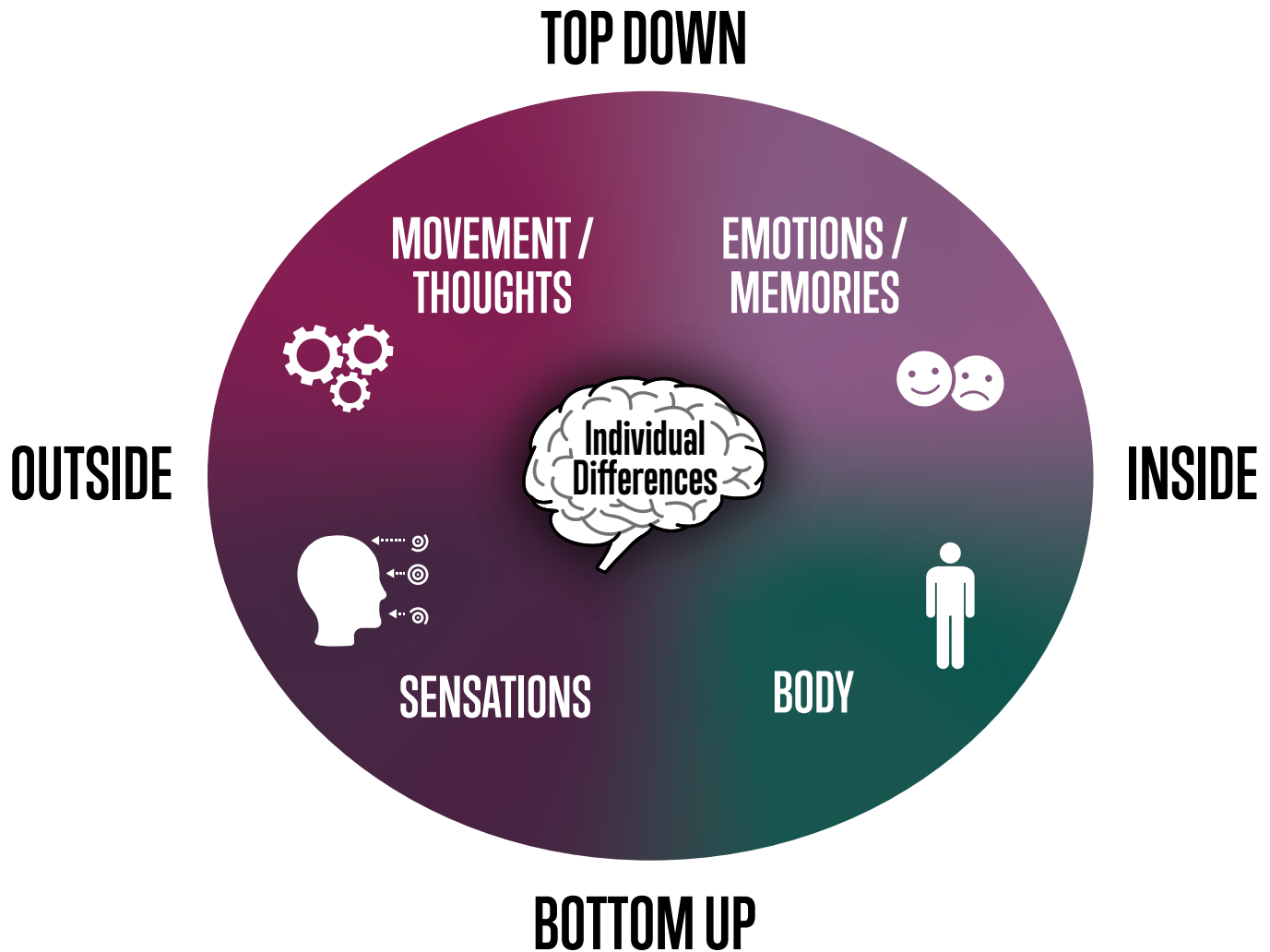
The star at the top of the pyramid is there to remind you that we interact best with each other when both partners feel safe together. Remember that we had the same star representing safety in the Sleep-Wake States Arc. Our best interactions happen when we are feeling safe with healthy sleep cycles and the green zone awake state.

THE NEURORELATIONAL FRAMEWORK'S

Four Brain Systems

SUPPORT COLLABORATIVE AND CUSTOMIZED CARE

STEP
3
BRANCHES



THE NEURORELATIONAL FRAMEWORK'S Four Brain Systems

STEP 3

TRUNK

This oval diagram shows the four brain networks, or brain systems, of the NRF.

The four brain networks are Body, Sensations, Emotions/Memories, and Movement/Thoughts. These networks are used to assess an individual's different strengths, abilities, and vulnerabilities. These four networks tell a story as to how these networks mature to integrate our inside and outside worlds.

It all starts in the **body**. It is important to get calm in our bodies so that we can take in the outside world that is full of interesting and novel **sensations**. Then, we start to organize those sensations in our inside world discerning what to pay attention to, what to ignore, what to like, and what not to like. This begins to shape our inside world of **emotions and memories**. Lastly, we return to the outside world and, thanks to our understanding of the goals and demands of each context, we can now **move** to adapt, or not. Later, as the brain matures, it can use this information from all the networks to **think** about our future choices.

Step Three assesses individual differences through these four stories which collect a breadth and depth of information on the four brain networks. Step Three provides a customized guide for each person's journey towards improving their stress patterns and the quality of their relationships. When communities use the NRF's three steps as a common language and shared approach, collaborative care can function at its best.