



# CENTER FOR CHILDREN'S SPIRITUALITY – OUR FIRST YEAR

TRINITY INSTITUTE FOR APPLIED NEUROSCIENCE AND SPIRITUALITY (TIANS)

The background is a dark blue gradient with a field of small white stars. On the right side, there are several overlapping circular and semi-circular patterns, some with tick marks and arrows, resembling a technical or scientific diagram. On the left side, there are also some faint circular patterns.

Spirituality

Applied Neuroscience

Mindfulness

Awareness

Presence

Gratitude

# AGENDA

1. Problem statement: losing our grasp on the big picture
2. Understanding Spirituality
3. What does Neuroscience have to do with all this?
4. Practical applications in school settings over this past year
5. Future plans

# THE CHALLENGE TODAY

- Social scientists suggest we are becoming a polarized, tendentious, uncivil society characterized by tribalism, rudeness, abusive displays of anger, and the toleration of intolerance.
- Within this environment the pulls of modern culture distract Millennials and their young children away from practices and institutions that might support spiritual development.
- Many of today's young families have no experience with spiritual practices, be they religious or secular (yoga, mindfulness meditation, etc.)
- Studies are now showing that lack of connection to spiritual education and development has a direct impact on children's ethics, values, and morals.
- Studies suggest spiritually connected individuals are healthier, more productive, and more likely to be in stable relationships.
- Research indicates that spiritually healthy children are less susceptible to peer pressure, substance use, and reckless risk taking.

# THE TIANS MISSION

TO EXPLORE THE INTERSECTION OF SCIENCE AND MYSTERY IN THE PURSUIT OF HUMAN WHOLENESS AND JOY.

- Dedicated to nurturing and engaging children's spirituality with a focus on scientific inquiry, restorative practices, and finding new pathways to human wholeness

# AN EXPERIMENTAL SOLUTION: FOSTERING SPIRITUALITY

- More broadly, and as it relates to the development of children into responsible members of society, human spirituality is about understanding there is a big picture, involving the common good, and that selfless action benefiting others serves both individual and community. Spiritual awareness provides a context of place and time in a community with history, continuity, focus, purpose, and a future beyond oneself.
- For children, spiritual development is as natural and necessary as physical, intellectual, or emotional development. But like young muscles, minds, and cognition, spirituality must be constantly “exercised” and nurtured in children, lest it wither and grow fallow. Like neurons in the child brain, spirituality can fall prey to the law of “use it or lose it.”

# SUMMARY: OUR DISRUPTIVE PREMISE

Spirituality is about transcendence, self-awareness, wholeness, and self-affirming selflessness, the understanding that there is more than what we see in the day-to-day.

Our world is inhabited by broken, disconnected, self-absorbed individuals; spiritual beings having a human experience, but without the deep awareness of who they are, why they are, and who they might become.



This brokenness has repercussions on the health of the community, fragmenting, defocusing, diffusing, and disabling.



*TIANS proposes it is possible to foster nascent spirituality in children and restore broken ties to personal spirituality in older individuals.*

## *APPLIED NEUROSCIENCE IS....*

EMPLOYING KNOWLEDGE ABOUT HUMAN BRAIN FUNCTION AND DEVELOPMENT FOR OPTIMIZED ACHIEVEMENT OF SOME SPECIFIC AND PRACTICAL PURPOSE, E.G. TRAINING IN A SKILL, SUBJECT AREA, OR DIMENSION OF THE SELF

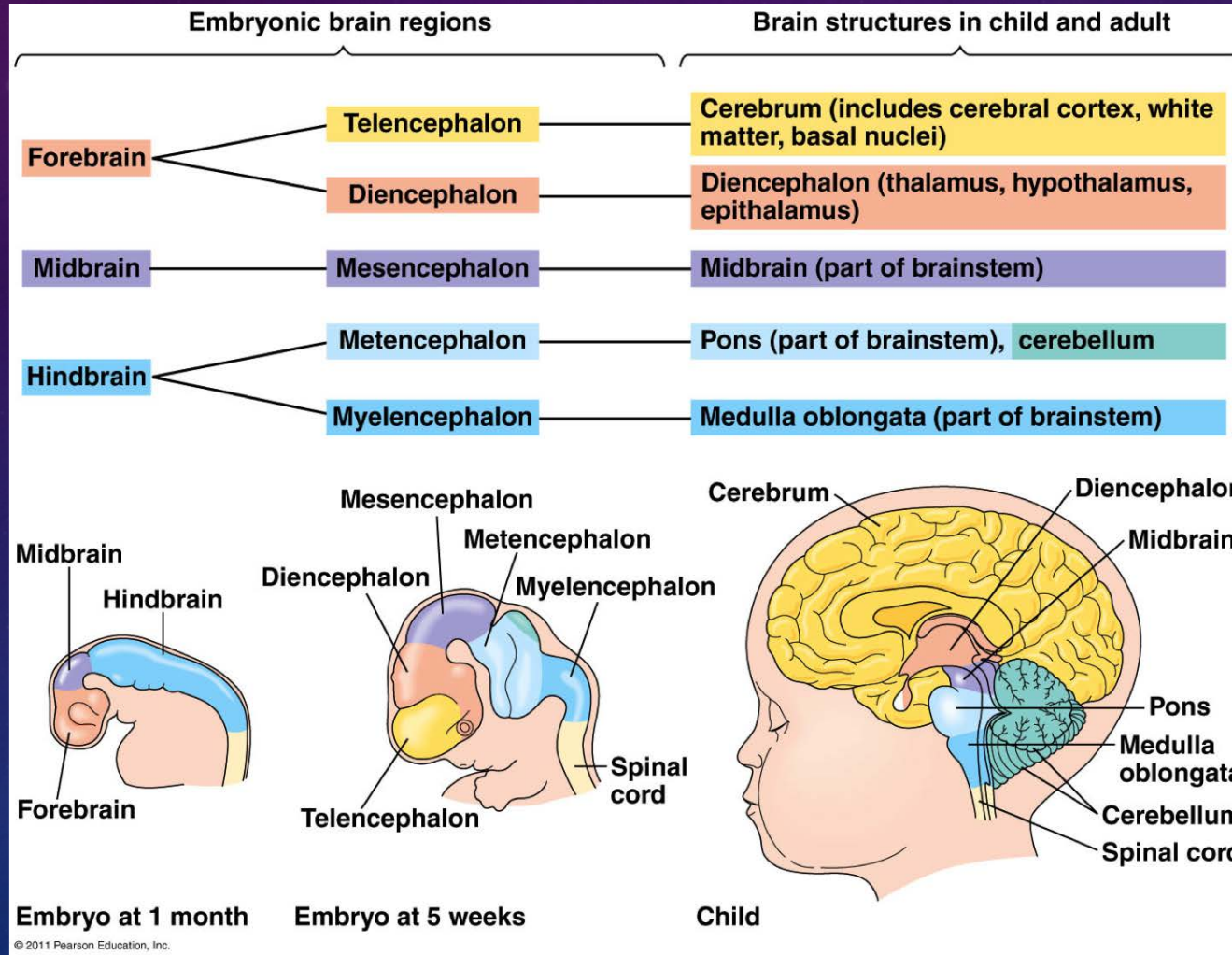
HELPING THE INDIVIDUAL BY MEETING THEM WHERE THEY ARE IN TERMS OF THE CAPACITY AND POTENTIAL FOR GROWTH AND CHANGE, ACKNOWLEDGING THE PLASTICITY AND RESILIENCE OF BRAIN PROCESSES UNDERLYING THIS GROWTH

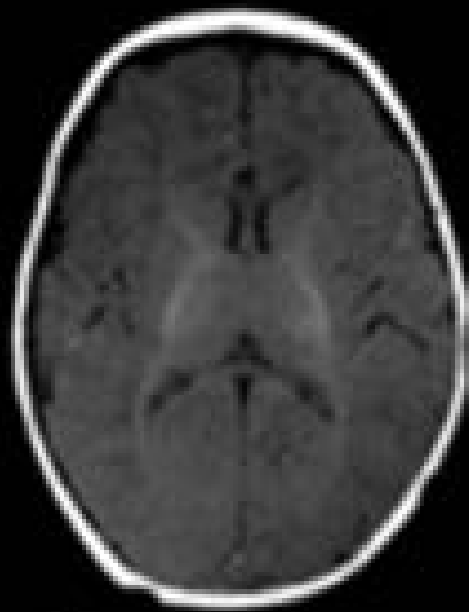


# HOW IS NEUROSCIENCE RELEVANT TO SPIRITUALITY?

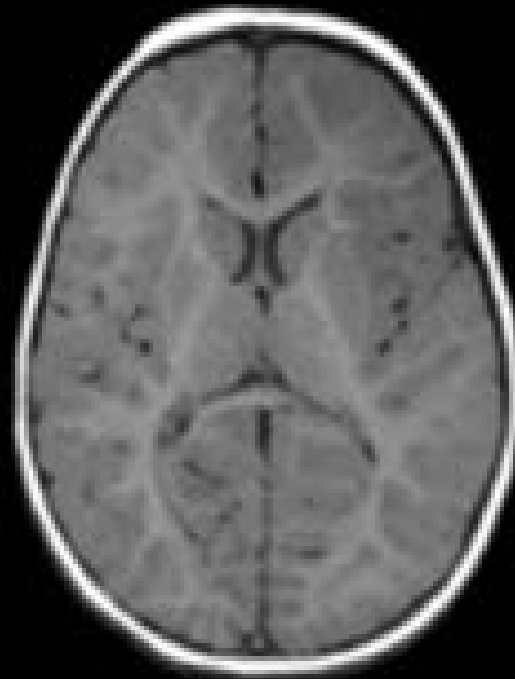
- Humans are hard-wired to think about themselves in relation to others and to the world at large.
- The tendency to question the big issues; death, non-existence, God, the purpose of life, etc. is the essence of spirituality.
- The "thing" that does the questioning is the mind, a phenomena and consequence of the brain.
- The brain is a constantly modifying entity, its development is influenced and directed by experience and learning, in fact, requiring such formative experience. Use it or lose it may be reframed as use it or don't ever get it in the first place to eventually lose.
- Malformative or deprivation experiences result in incomplete brain development, the consequences of which include stunted spiritual growth, immature self-interest, and lack of moral compass.

# A BRAIN'S EYE VIEW ON DEVELOPMENTAL CHANGE: FROM NEURON TO BRAIN AND BACK AGAIN





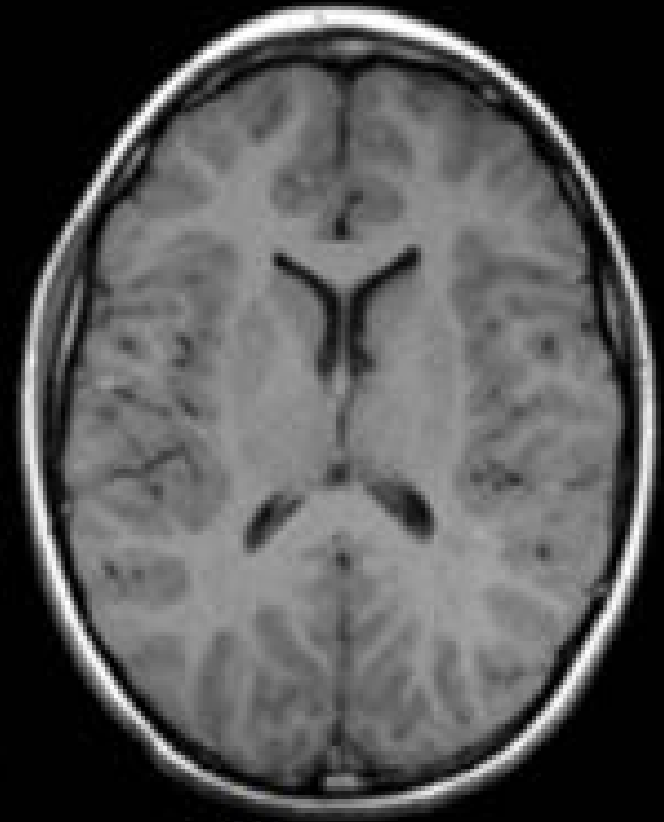
3 months



1 year



2 years



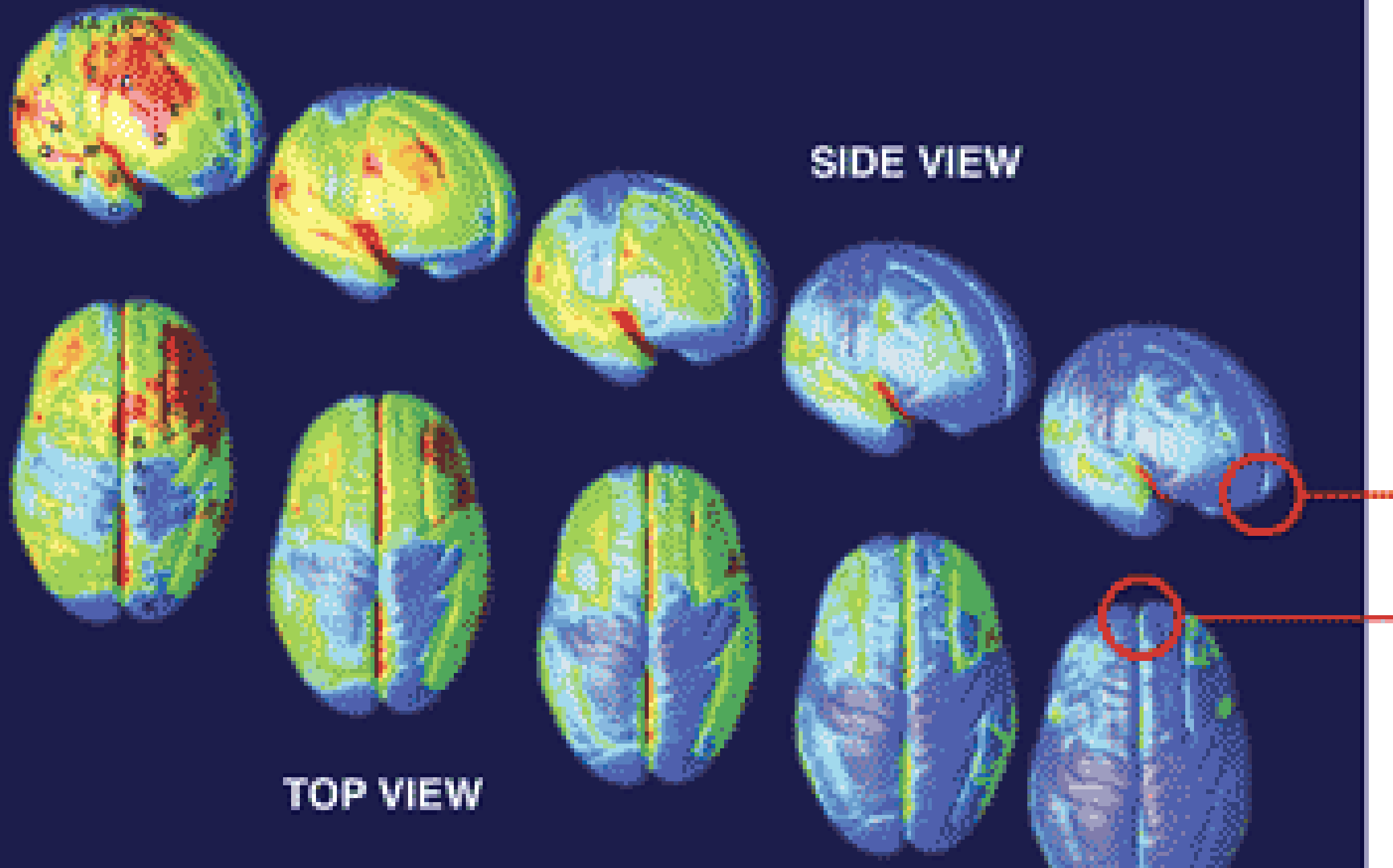
10 years

MRI scans of human brain development

# AGES

5

20



SIDE VIEW

TOP VIEW

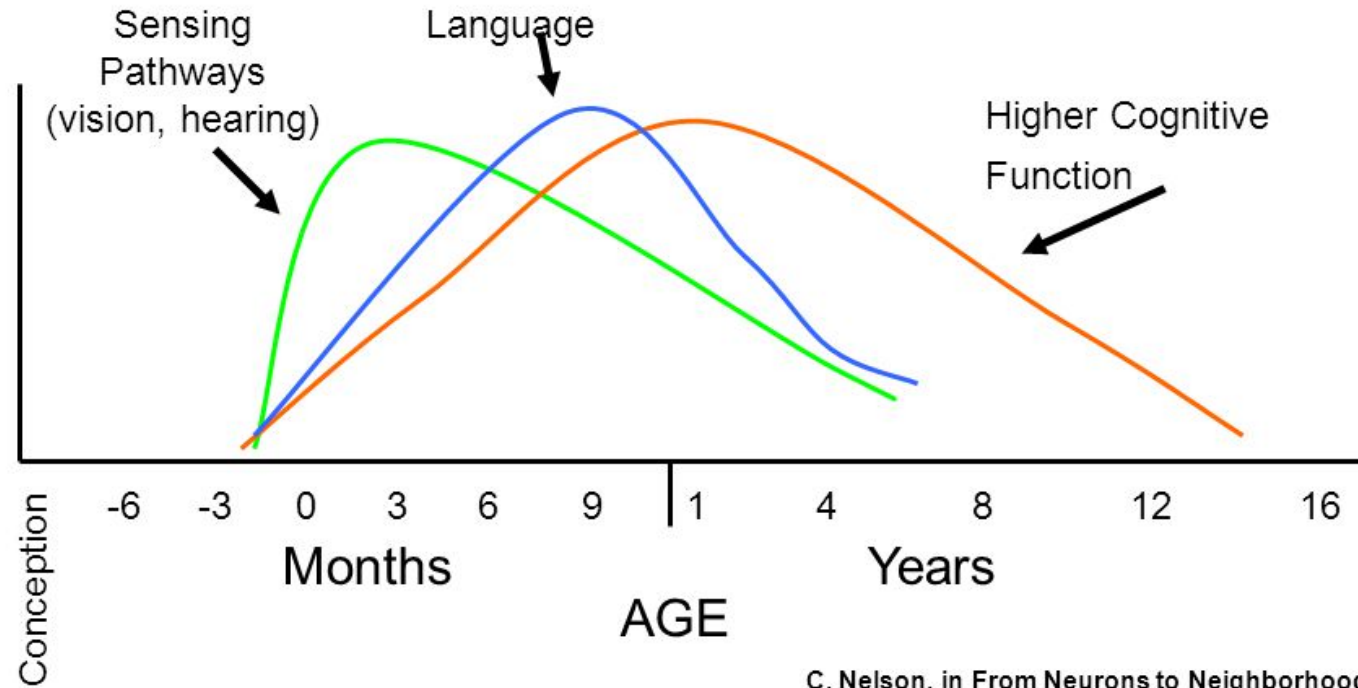
Prefrontal Cortex



Diffusion Tensor Imaging-  
measuring the randomness  
of water movement helps map  
the integrity of nerve tracts, a wiring  
diagram of brain networks



# Human Brain Development - Synapse Formation



C. Nelson, in *From Neurons to Neighborhoods*, 2000.

# “AN EXPERIMENT” - SCHOOL YEAR 2016 - 2017

- The Schools (5 schools and 340 students)
  - 81 students at John C. Daniels Elementary School (New Haven)
  - 136 students at Samuel B. Webb Elementary School (Wethersfield)
  - 43 students at Worthington Hooker Upper and Middle Schools (New Haven)
  - 19 students at Madison School for Young Children - Pre-K (Madison)
  - 55 students at Breakthrough Magnet Elementary School (Hartford)
- Sampling of Offerings
  - Mindfulness exercises (mindful breathing, mindful listening, mindful eating, mindful walking, communication)
  - Body awareness
  - Modeling heartfulness and generosity

## From a Letter to Parents:

Mindfulness is “paying attention” to the here and now with an attitude of kindness and curiosity. It is about knowing what you are doing when you are doing it with openness and “non-judgement”. Mindfulness can be summed up as both an “inner” and “outer” education/investigation of each moment in our lives.

The particular practices your child will be learning are specifically geared for young people at their age/grade level and they are always an invitation not a demand. The lessons may include books, music, movement and other activities to teach and cultivate concepts related to kindness, compassion, and curiosity. Among other lessons, your child will learn and practice ways to recognize and work with difficult emotions. Foundationally, the practices are about kindness and compassion-for ourselves, others, and the world.

The main themes include:

Mindful bodies and planting seeds of peace and kindness

Feeling emotions on the inside

How I feel on the inside shows on the outside

Taking care of strong emotions on the inside and outside

Self-regulation and working out problems

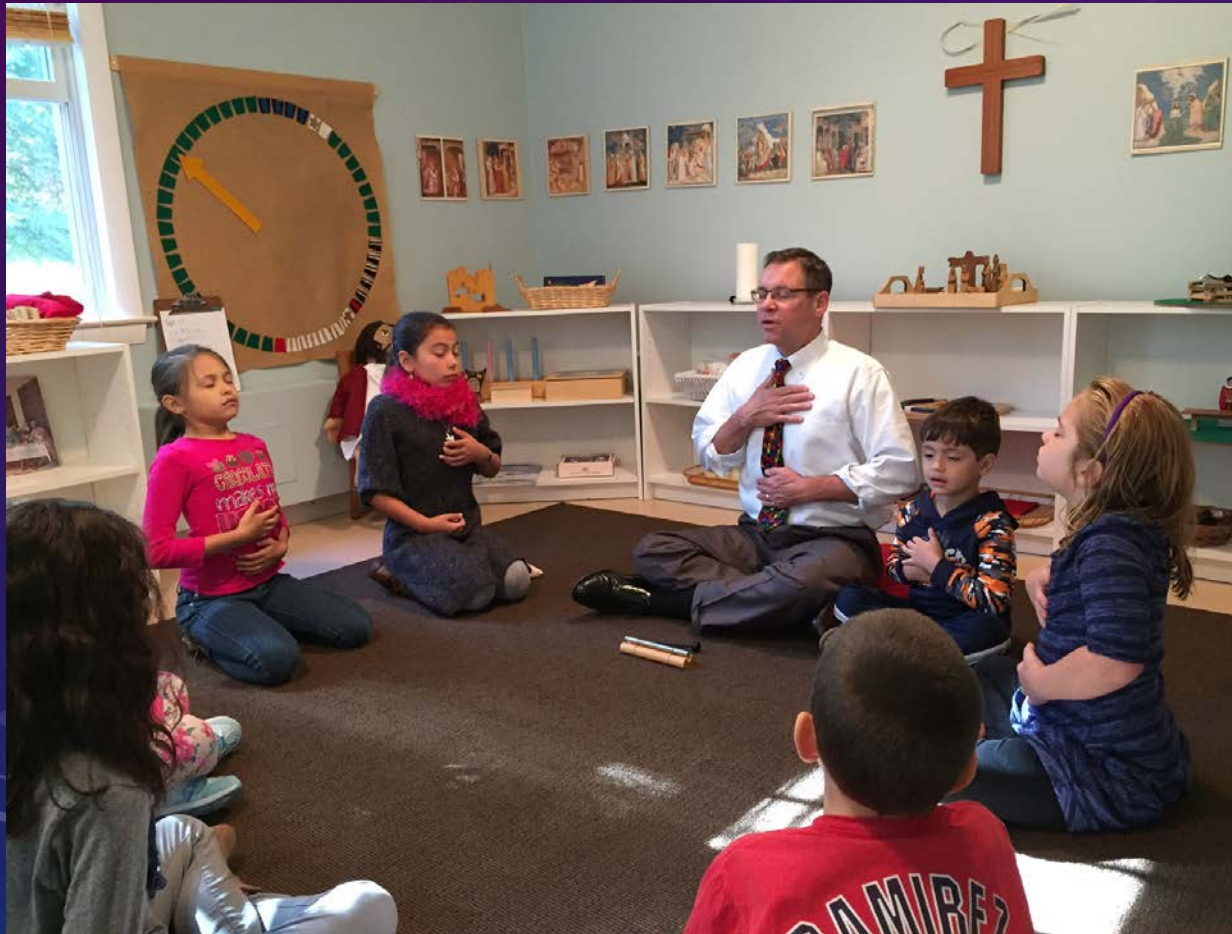
Gratitude

All people depend on each other and the Earth

Gratitude and caring for our world



# WHAT IS MINDFULNESS AND HOW DOES IT RELATE TO SPIRITUALITY?



- Mindfulness is about living in and being present to the moment, alive to the possibility of the now.
- It is teaching ourselves to see our body and mind as part of a bigger, collective world, fully participant in, reflective of, and reflecting into it our Selves, not in egoism, but in love, gratitude, and in awe of the mystery and connectedness we share with each other in the miracle of our existence.
- Mindfulness in one sense, prepares the consciousness for openness to things spiritual by making one more aware of the sensate moment; a type of prayer of self-discovery, comprehension, and appreciation.



# EVALUATION AND SATISFACTION DATA

## SAMUEL B. WEBB ELEMENTARY SCHOOL

- Feedback was collected from 136 students at the end of the school year
  - 2 classes and 28 students in 3<sup>rd</sup> grade
  - 2 classes and 40 students in 4<sup>th</sup> grade
  - 2 classes and 48 students in 5<sup>th</sup> grade
  - 1 class and 20 students in 6<sup>th</sup> grade
- Feedback from 7 teachers was also collected



- 84% (n=113 students) reported that they enjoyed Mindfulness
- 77% (n=104 students) claimed that learning Mindfulness has helped them in their life



# Reports of how Mindfulness has helped students



- 66% calm down when getting upset
- 51% focus better in the classroom
- 48% are happier at home and/or school
- 43% avoid fights or arguments
- 42% fall asleep at night
- 42% make decisions



“I used mindfulness when I was arguing with my brother. I took a trip inside my body and it calmed me down”

“I use it when my sister screams”

“ Mindful breathing and coming inside made my headaches go away”

“I got in a fight with my brother so I used breathing to not fight back”

“Used it to fall asleep”



- 73% of students said they would use Mindfulness in the future
- 85% of students think more children should learn Mindfulness

“I was in the car, my sisters were whining and crying, and it was rainy. My mom looked stressed, so I did mindfulness”



22% of students reported that they taught someone they knew about Mindfulness



# Reports from teachers on the Mindfulness Experiment



Teachers reported that 75% - 100% of their students benefited from Mindfulness

6 of the 7 teachers personally benefited from Mindfulness

6 teachers reported that Mindfulness created an environment in which they could spend more time teaching – some reported up to 20 more minutes per day.

# Whole School Mindfulness Intervention 2017-2018

## Samuel B. Webb Elementary School



- Components of the Intervention
  - Students
  - School Staff
  - Parents
  - Wethersfield Community

# Whole School Mindfulness Intervention 2017

## Samuel B. Webb Elementary School

- Students
  - Weekly mindfulness and restorative practice sessions
  - Conduct Town Meetings where the entire school participates in a mindfulness offering
  - Provide backpacks for weekend “check outs” that contain books on mindfulness and mindfulness tools (e.g. breathing balls) to be used at home
- School Staff
  - Voluntary mindfulness sessions

# Whole School Mindfulness Intervention 2017

## Samuel B. Webb Elementary School

- **Parents**

- Offering presentations and mindfulness sessions at PTO meetings
- Post mindfulness material on the school website
- Use social media – Samuel B. Webb Elementary School Facebook Page
- Provide copies of books on Mindfulness, Mindfulness Parenting and the Child's Developing Brain to the school library for families to check out

- **Community**

- Write an article for the Wethersfield local newspaper
- Use local access television



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Applied Neuroscience

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Awareness

Presence

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THANK YOU