# Brain-Based Coronavirus Trauma Resolution

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# Abstract

Children and teens have been harmed in many ways by the Coronavirus pandemic. Learn to use brain science and fluid and developmentally appropriate youth engagement to correct challenges caused by the pandemic and beyond.

# OrchardHumanServices.org/Trauma

# Four Learning Objectives

Learn how the pandemic has harmed our youth

Learn how brain science can provoke healing

Explore strategies to get youth back on track

Discover fluid practices that promote recovery

**Bonus Bibliotherapy Section**

# Please Care For Yourself

**We recognize the sensitive nature of this subject matter. If you are distressed by this material, please reach out during the session. You may speak up, raise your hand, chat, or privately text my staff at 770-686-0894.**

**Afterward, please be aware of your response to the presentation, and reach out for help from a mental health provider, crisis support line, or the Georgia Crisis and Access Line.**

# 1.

## Learn how the pandemic has harmed our youth

# Children and Youth

## Are Suffering In Many Ways

**Fear of Loss, Death of Loved Ones, Illness**

**Isolation, Quarantine, Lack of Social Interaction**

**Food Insecurity, Housing Insecurity, Deep Poverty**

**Family Violence, Family Conflict, Parental Anxiety**

**Online Learning, Poor or No Teaching or Instruction**

**Confusing and Difficult Online Learning Platforms**

**Multiple Websites and Programs to Submit Work**

**Teachers Send Daily Notes About Missing Work**

Green, P. (2020). Risks to children and young people during covid-19 pandemic British Medical Journal, 369. https://doi.org/10.1136/bmj.m1669

# Children and Youth

## Are Exposed to Online Dangers …

**and are at increased risk of exploitation as they engage in online and unfettered access to the internet. In addition to human trafficking, children are at risk of exposure or involvement with child pornography, illegal drug use and drug dealing, forced labor and prostitution, and radicalization by militia groups and terrorist organizations.**

Office of Victims of Crime (2021). Pandemics and human trafficking: A COVID-19 update
https://ovc.ojp.gov/events/pandemics-and-human-trafficking-covid-19-update

# The Coronavirus or Covid-19 Pandemic

## Has Been Determined To Be A Multi-Systemic Disaster …

**of global proportion that is negatively impacting children, their loved ones and families, neighborhoods, communities, economies, societies, and governments.**

**Masten, A.S., Motti-Stefanidi, F. Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19. *ADV RES SCI* 1, 95–106 (2020). https://doi.org/10.1007/s42844-020-00010-w**

# The Coronavirus or Covid-19 Pandemic

## Has Caused Significant ACES or Adverse Childhood Experiences

**ACEs can interfere with every area of a child's life including behavior, mental and physical health, learning, development, relationships, self-care, and play.**

https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf

# The Coronavirus or Covid-19 Pandemic

## ACES

*or*

## Adverse Childhood Experiences

**Are a type of trauma and can trigger changes in gene expression. Negative impact can be avoided with early intervention and correction.**

https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf

Example

# Oxytocin is the Hormone of Bonding and Attachment

**ACEs can shut down some of the Oxytocin bonding sites and interfere with a child's ability to feel social connection with others and bond and attach with parents.**

Puglia, M.H., Lillard, T.S., Morris, & Connelly, J.J. (2015). Epigenetic modification of the oxytocin receptor gene influences the perception of anger and fear in the human brain. *PNAS, 112* (11) 3308-3313. https://doi.org/10.1073/pnas.1422096112

# ACES & Trauma in Childhood Can Cause

- Changes in hormone & neurotransmitter levels
- Physical & mental health challenges
- **Bonding & attachment problems**
- Problems connecting with others
- Changes in brain structures
- Learning problems
- **Self-Harming**
- **Depression**
- **Suicidality**
- **Anxiety**

Sullivan R. M. (2012). The Neurobiology of Attachment to Nurturing and Abusive Caregivers. The Hastings law journal, 63(6), 1553–1570. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774302/

# Trauma & Attachment Issues

## Can Interfere With Everything

**Boundaries · Lawfulness · Socialization**
**Development · Behavior · Dysregulation**
**Responsibility · Personal Care · Toileting · Hygiene**
**Physical Health · Immune Function · Memory**
**Mental Health · Learning · Focus · Attention**
**Emotional · Relational · Neurodevelopment**

(Zeanah, & Gleason, 2015).

# Traumatized Youth

## They Feel Like They Are Drowning In Their Own Despair and Dysfunction

**(Bortolon, C., Seille, J., & Raffard, S. (2017). Exploration of trauma, dissociation, maladaptive schemas and auditory hallucinations in a French sample. *Cognitive Neuroopsychiatry, 22*(6), 468-485.** https://doi.org/10.1080/13546805.2017.1387524

# Traumatized Youth

**Trauma is associated with bizarre and irrational cognition and behavior and is linked to dissociation, hallucinations, and maladaptive schemas among other things**

**(Bortolon, C., Seille, J., & Raffard, S. (2017). Exploration of trauma, dissociation, maladaptive schemas and auditory hallucinations in a French sample. *Cognitive Neuroopsychiatry, 22*(6), 468-485.** https://doi.org/10.1080/13546805.2017.1387524

# Traumatized Youth

## Live Behind an Invisible Curtain That Distorts Reality

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# Met With Resistance

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# Fluid Trauma™ Response

## Circumvents Resistance

**Meet the youth where they stand.**

**Work with their trauma schema.**

**Take the path of least resistance.**

**(Bortolon, C., Seille, J., & Raffard, S. (2017). Exploration of trauma, dissociation, maladaptive schemas and auditory hallucinations in a French sample. *Cognitive Neuroopsychiatry, 22*(6), 468-485.** https://doi.org/10.1080/13546805.2017.1387524

# Fluid Trauma™ Response

## Look For Openings

**Follow the youth's lead to pursue strategies that work with rather than against the individual's schema.**

**(Bortolon, C., Seille, J., & Raffard, S. (2017). Exploration of trauma, dissociation, maladaptive schemas and auditory hallucinations in a French sample. *Cognitive Neuroopsychiatry, 22*(6), 468-485.** https://doi.org/10.1080/13546805.2017.1387524

# 2.

## Learn how brain science can provoke healing

# Advances in Neuroscience and Positive Psychology …

**have provided a road map to help children out of the Coronavirus crisis.**

**One important new advance in Neuroscience and Positive Psychology is the use of compassion to heal trauma.**

Ho, S. S., Nakamura, Y., & Swain, J. E. (2021). Compassion As an Intervention to Attune to Universal Suffering of Self and Others in Conflicts: A Translational Framework. Frontiers in psychology, 11, 603385. https://doi.org/10.3389/fpsyg.2020.603385

# Compassion for Self and Others Is a Curative for Many Challenges

**Compassion training can reduce suffering of the individual and increase sense of life-satisfaction. This applies to children, parents, teachers, doctors, nurses … just about everyone impacted by the pandemic.**

Ho, S. S., Nakamura, Y., & Swain, J. E. (2021). Compassion As an Intervention to Attune to Universal Suffering of Self and Others in Conflicts: A Translational Framework. Frontiers in psychology, 11, 603385. https://doi.org/10.3389/fpsyg.2020.603385

# Compassion Is Powerful

## Self-compassion helps some children with a history of trauma and abuse to develop a sense of belonging in school and reduce suicidal ideations.

Zhang, H., Liu, M. & Long, H. Child Maltreatment and Suicide Ideation in Rural China: The Roles of Self-compassion and School Belonging. Child Adolesc Soc Work J (2020). https://doi.org/10.1007/s10560-020-00679-z

# Resilience Is A Complex Network of Protective Capacities and Resources

**Communities support resilience of children and youth through programs and services that promote socialization (friendship), mental health services, after-school and summer programs, healthcare, tutoring, mentorship, wrap-around, childcare, youth programs, and emergency and crisis services.**

Masten, A.S., Motti-Stefanidi, F. Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19. ADV RES SCI 1, 95–106 (2020). https://doi.org/10.1007/s42844-020-00010-w

# Emotional Regulation can protect from the harm associated with ACES

**Emotional regulation is the ability of a child to notice, identify, understand, name and respond to the emotions of self and others; and allows children to have control of their emotional reactions.**

Cloitre, M., Khan, C., Mackintosh, M.-A., Garvert, D. W., Henn-Haase, C. M., Falvey, E. C., & Saito, J. (2019). Emotion regulation mediates the relationship between ACES and physical and mental health. Psychological Trauma: Theory, Research, Practice, and Policy, 11(1), 82–89. https://doi.org/10.1037/tra0000374

# Steps to Teaching Emotional Regulation

- Noticing Bodily Sensations of Emotions
- Identifying and Naming Emotions
- Recognizing Emotions of Self and Others
- Self-Soothing, Self-Calming, Impulse Control
- Regulating Emotions and Behaviors of Self
- Emotional Regulation or Self-Regulation

Cloitre, M., Khan, C., Mackintosh, M.-A., Garvert, D. W., Henn-Haase, C. M., Falvey, E. C., & Saito, J. (2019). Emotion regulation mediates the relationship between ACES and physical and mental health. Psychological Trauma: Theory, Research, Practice, and Policy, 11(1), 82–89. https://doi.org/10.1037/tra0000374

# Sensory Regulation & Interoception Can Soothe Trauma & Promote Regulation

- **Sensory Integration means understanding bodily sensations connected to emotions**
- **Interoceptive awareness means being aware of internal bodily sensations like hunger or being full; heartbeat and breath; blood pressure (headache or dizziness).**

**Gerge, A. (2020). What neuroscience and neurofeedback can teach psychotherapists in the fieid of complex trauma: Interoception, neuroception and the embodiment of unspeakable events in treatment of complex PTSD, dissociative disorders and childhood traumatization, European Journal of Trauma & Dissociation,4(3), 100164, ISSN 2468-7499, https://doi.org/10.1016/j.ejtd.2020.100164.**

# Heart Rate Variability & Polyvagal Theory

- **The heart is the center of the human regulatory experience**
- **Polyvagal Theory recognizes that an ascending track of the Vagus nerve travels up to the brain to promote calm**
- **Maximizing efficiency of metabolism through increased HRV – Heart Rate Variability – coincides with greater emotional stability**

**Ernst G (2017) Heart-Rate Variability—More than Heart Beats? Front. Public Health 5:240. doi: 10.3389/fpubh.2017.00240**

# Therapeutic Breathing Can Activate the Vagus Nerve and Promote Calm

**Slow diaphragmatic breathing can reduce stress and promote calm and healing.**

**Expose youth to various ways to breathe as a strategy to promote focus, calm, and attention while reducing discomfort due to trauma.**

Peterson, L. (2017). Decrease stress by using your breath. Mayo Clinic. https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/decrease-stress-by-using-your-breath/art-20267197

## Just as ACES can shut down Oxytocin bonding sites and interfere with a youth's social connection, bonding and attachment …

**Stable care, nurturing, bonding, compassion, and security can turn gene expression back on and restore the Oxytocin bonding sites.**

Puglia, M.H., Lillard, T.S., Morris, & *Connelly*, J.J. (2015). Epigenetic modification of the oxytocin receptor gene influences the perception of anger and fear in the human brain. *PNAS, 112* (11) 3308-3313. https://doi.org/10.1073/pnas.1422096112

# Boundaries & Rules Can Co-Exist With Compassion & Nurturance

**Love and Logic can be adapted for classrooms and other settings to promote safe boundaries and rules while maintaining emotional connection with youth.**

Ziegler, C.L. (2019). *Impact of the implementations of the nine modules of love & logic on classroom management* [Dissertation]. Trevecca Nazarene University. Proquest [22587565].

# 3.

## Explore strategies to get youth back on track

# Calm, Kindness, & Compassion Can Soothe the Traumatized Brain

**Use developmentally appropriate youth engagement strategies to maintain a calm environment and kind and compassionate attitude:**

- **Consequence-based engagement**
- **"Love and Logic" books**
  - **Early Childhood – Lavender**
  - **General Childhood – Orange**
  - **Teenage Years - Green**

DeBello, M. et al. (2020). The compassionate vagus: A meta-analysis on the connection between compassion and heart rate variability. Neuroscience & Biobehavioral Reviews, 116, 21-30. https://doi.org/10.1016/j.neubiorev.2020.06.016.

# Physical Comfort & Loving Touch

**Touch (or Kinesthetic Tactile Stimulation) can be healing when the youth feels safe with touch:**

- **Teach children healthy touch**
- **Martial Arts and sports**
- **High fives & fist bumps**
- **Shaking hands**
- **Teach self-holding**
- **Teach head & heart holding**

Boston Children's Hosital. (2021). Treatments for Post Traumatic Stress Disorder (PTSD) in Children. https://www.childrenshospital.org/conditions-and-treatments/conditions/p/post-traumatic-stress-disorder-ptsd/treatments

# Move to Unfreeze the Trauma Response

**Use movement to unfreeze a youth's frozen trauma response. Some ideas include …**

- Movement & Breathing
- Bike Riding & Skating
- Sports & Gymnastics
- Walking & Jogging
- Yoga & Pilates
- Martial Arts
- Dance
- Play

Tony Buckley, Marko Punkanen & Pat Ogden (2018) The role of the body in fostering resilience: a Sensorimotor Psychotherapy perspective, Body, Movement and Dance in Psychotherapy, 13:4, 225-233, DOI: 10.1080/17432979.2018.1467344

# Consistency, Dependability, Reliability

**Promote these qualities in your programming and in the youth's life to promote stability and calm:**

- **Create a consistent schedule**
- **Warn youth of upcoming events**
- **Hold regular mealtimes**
- **Wake youth up on weekends**
- **Maintain stable bedtime**
- **Allow the youth some choice**
- **Encourage youth to plan for self**

Fleishman, J., Kamsky, H., Sundborg, S., (May 31, 2019) "Trauma-Informed Nursing Practice" OJIN: The Online Journal of Issues in Nursing Vol. 24, No. 2, Manuscript 3. DOI:10.3912/OJIN.Vol24No02Man03

# Social Time

**Use social together time like a treatment for many behavior, social, and emotional problems:**

- **Regular Mealtime**
- **Discuss events, news, school at meals**
- **Play games, cards, do puzzles**
- **Watch television shows & movies**
- **Tell jokes, share funny videos**
- **Share acts of kindness with peers**
- **Share acts of kindness in community**

Hena Thakur & Joseph R. Cohen (2020) Short-Term and Long-Term Resilience Among At-Risk Adolescents: The Role of Family and Community Settings, Journal of Clinical Child & Adolescent Psychology, DOI: 10.1080/15374416.2020.1756296

# Connect with Community Resources

**Increase natural supports for youth and their families and promote resilience by connecting to resources in the community:**

- **Collaboration and Consultation**
- **Wrap-Around Services**
- **Team Support Meetings**
- **Peer Support**
- **Teamwork**
- **Mutuality**
- **Buddy System**

Substance Abuse and Mental Health Services Administration. SAMHSA's Concept of Trauma Trauma and Guidance for a Trauma-Informed Approach. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

# Teach Developmental Skills

**Increase youths' developmental skills to support positive behavior, learning, and mental health and promote emotional regulation.**

- **Focus & Attention**
- **Impulse Control & Self-Regulation**
- **Listening & Following Directions**
- **Mindfulness & Self-Awareness**
- **Self-Soothing & Self-Calming**
- **Theory of Mind**
- **Emotional IQ**

Wodzenski, D.C. (2020). Human Super Power of Attachment to Promote Self-Regulation, Socioemotional Development, Positive Behavior and Mental Health. GAEYC Conference, Alpharetta, GA.

# Help Youth Experience Their Physicality

**Help youth become aware of bodily sensations associated with trauma, stress, and distress; help them feel safe while experiencing emotional pain.**

- **Bodily sensations**
- **Interoception (state of organs)**
- **Emotional responses**

Dieterich-Hartwell, R. (2017). Dance/movement therapy in the treatment of post traumatic stress: A reference model, The Arts in Psychotherapy, 54, 38-46. https://doi.org/10.1016/j.aip.2017.02.010

Reinhardt, K.M., et al. (2020. A multi-method assessment of interoception among sexual trauma survivors. Physiology & Behavior, 226, n.p. https://doi.org/10.1016/j.physbeh.2020.113108 Wodzenski, D.C. (2020). Human Super Power of Attachment to Promote Self-Regulation, Socioemotional Development, Positive Behavior and Mental Health. GAEYC Conference, Alpharetta, GA.

# 4.

## Discover practices that promote recovery

# Help Them Feel Safe

**Assure them adults are in charge**

**Let them know you are there for them**

**Remind them “You Are Safe”**

**Encourage them “We’ll Get Through This Together”**

**Connect them to supports …**

**“So Many People Are Looking Out for You”**

# Use Proven Strategies

**Consequence-Based engagement is a**

**scientifically proven strategy**

**“Love and Logic” is evidence-based**

**“Love and Logic” books are on Amazon or at Library**

**Find “Love and Logic” training sessions**

**at churches and community centers**

# Remain Calm … Be Consistent

**Youth are already stressed and distressed**

**Remain calm and be consistent with …**

**Rules, Boundaries, Consequences**

**Instead of punishing and yelling …**

**Seek to understand and support**

**Sometimes youth need grace …**

**Be willing to sometimes be flexible**

# Use Games & Play to Teach

**Want youth to listen and pay attention?**

**Play “Simon Says” and “Charades”**

**“Post Office” & “Bop It” also promote attention**

**Want youth to get along?**

**Set them up with fun group activities …**

**Create, do art, do a puzzle,**

**Watch a movie or Read a book**

# Humor Is Powerful Medicine

Humor and laughter is like a safety valve to release

anxiety, stress, and fear

Encourage youth to use humor to solve problems

Tell jokes at mealtime, outdoors, or during transport

Allow youth to watch funny shows together …

sit-coms, stand-up comics or funny movies

Laughing together can relieve stress

# Make Consistent Schedule

**When we can't control the world …**

**Create a schedule and stick to it!**

**Wake Up & Go To Bed On Schedule**

**Schedule regular mealtime, meal time, and play**

**Turn off technology an hour or two before bedtime**

**Provide a few moments of daily focused attention**

# Teach Self-Holding For Healing

Use loving touch to heal

Teaching dynamic movement

Teach Qi Gong, Yoga, Stretching

Teach youth to give selves hand and foot massage

Give high-fives and fist bumps often!

# Mealtime Is Healing Time

Sit together at the table for dinner

Talk about the day, school, friends

Discuss books, movies, social media

Encourage youth to support each other

Play simple games at the dinner table …

Like “Charades” and “I Spy”

Allow youth to help prepare and clean up meal

# Teach Youth To Move & Feel

Youth can freeze and go numb from trauma

Encourage them to move and feel

Talk about how YOU feel in your body

Encourage them to talk about how THEY feel

Do they have an upset tummy? Heavy heart?

Encourage movement …. Running, jumping, dancing, playing … all movement can help.

Encourage them to do yoga … so they focus on their bodies and the sensations they have as they move

# Ask About Self-Harming

**Youth learn about self-harming early**

**They copy peers who self-harm**

**They may first think it is cool …**

**Then they get caught up in a downward spiral**

**Ask youth directly about Self-Harm and Cutting**

**If you are concerned, contact youth's mental health professional, pediatrician, or the school counselor right away**

# Let School Know If Youth Is Distressed

School is stressing children out!!!

Let school know if youth is stressed

Pay attention to talk about bullying …

Always report bullying concerns to the school

Ask for the school counselor to check on youth

Give youth a “Stress Aid” when safe and permitted

Like a squishy ball or fidget to help self-calm

# If School Is Source of Stress & Distress

**Find a tutor or mentor to help**

**Stop adult-youth conflict over schoolwork**

**Ask mentor, tutor, or after-school teacher to check on youth's schoolwork to help youth get assignments completed and submitted**

**Ask the school for extra tutoring**

**Check with community and church organizations …**

**for Mentors, Tutors, & Peer Support Aids**

# Traumatized Youth

## They Feel Like They Are Drowning In Their Own Despair and Dysfunction

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# Traumatized Youth

## Live Behind an Invisible Curtain That Distorts Reality

**Use a fluid approach that gets "behind" the trauma curtain where the youth is able to engage, heal, and recover.**

**(Bortolon, C., Seille, J., & Raffard, S. (2017). Exploration of trauma, dissociation, maladaptive schemas and auditory hallucinations in a French sample. *Cognitive Neuroopsychiatry, 22*(6), 468-485.** https://doi.org/10.1080/13546805.2017.1387524

# Fluid Trauma™ Response

## Water Follows Path of Least Resistance

## Flow With the Trauma

Create a Fluid Schedule

Use Fluid Responses to Dysfunction

Allow Consequences to Teach

Look for Openings

# Fluid Trauma™ Response

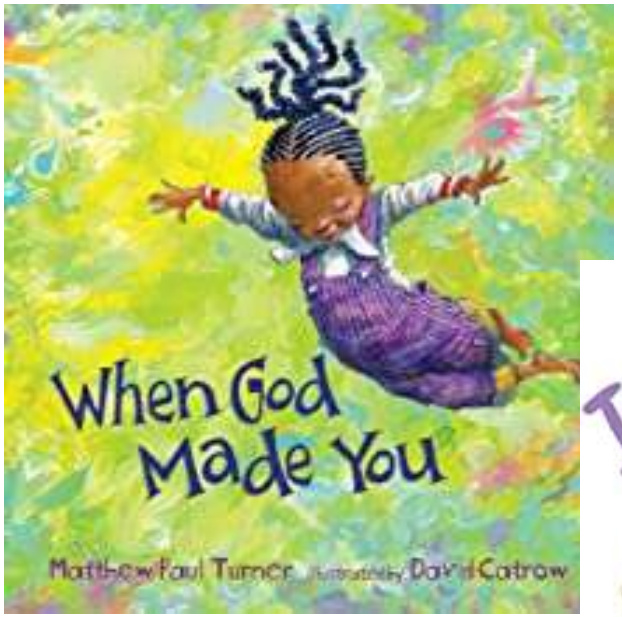
## Circumvents Resistance

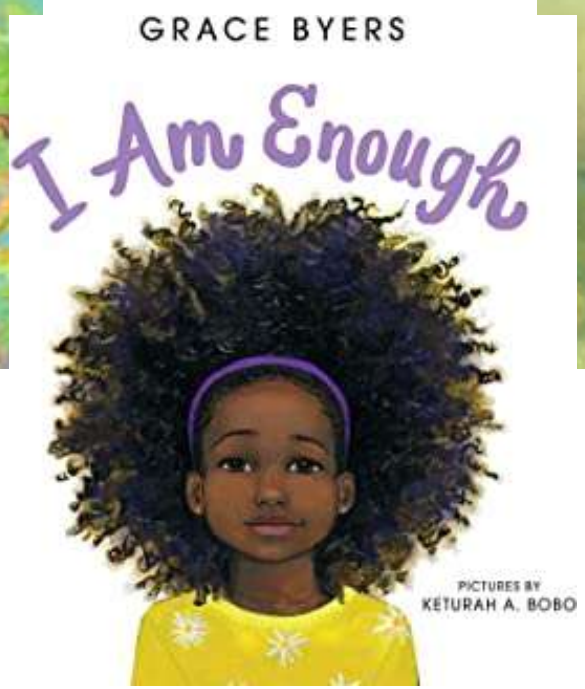
Feel Hold Calm Hope Name Sense Notice Satisfy
Answer Protect Balance Nurture Stabilize Purpose
Describe Narrative Resilience Re-Decision Narrative
Compassion Voice-Speak Imagination Memory Plus
Interoception Proprioception Neuroplasticity Move

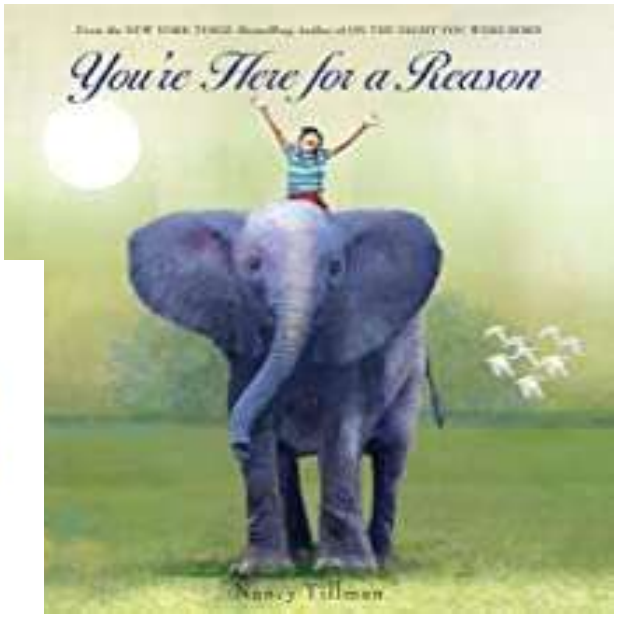
# Bonus

## Bibliotherapy Section

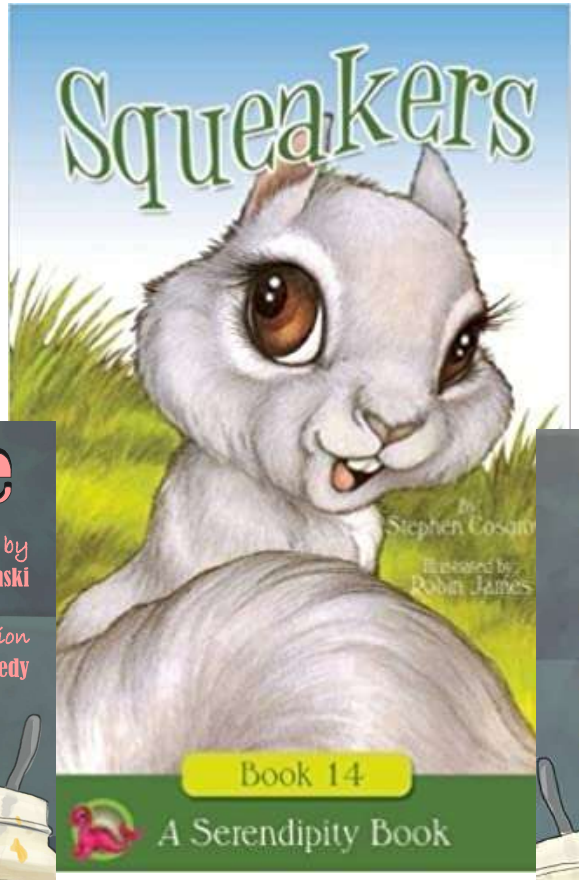
# Teach Children To Know They Are Special

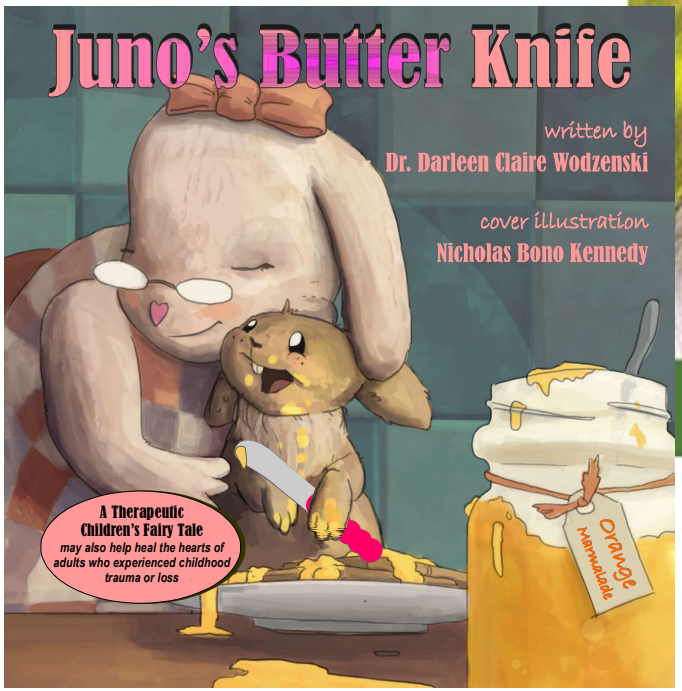


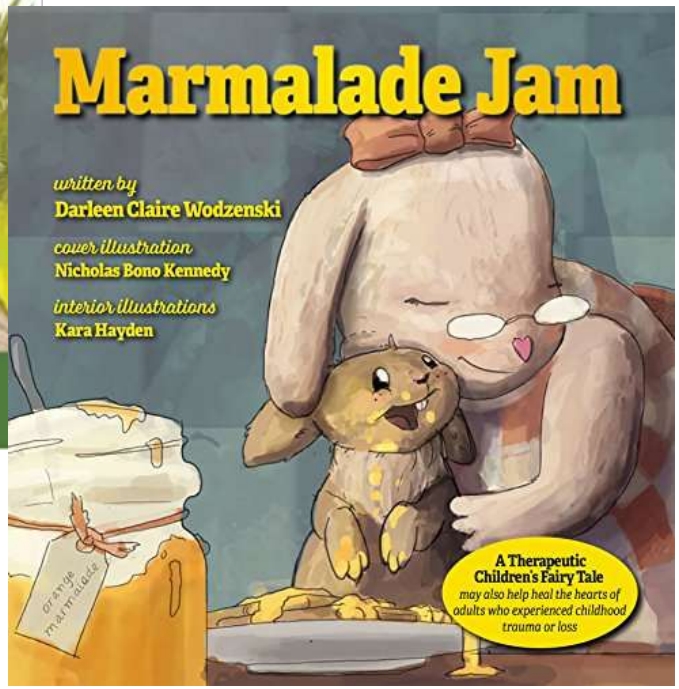



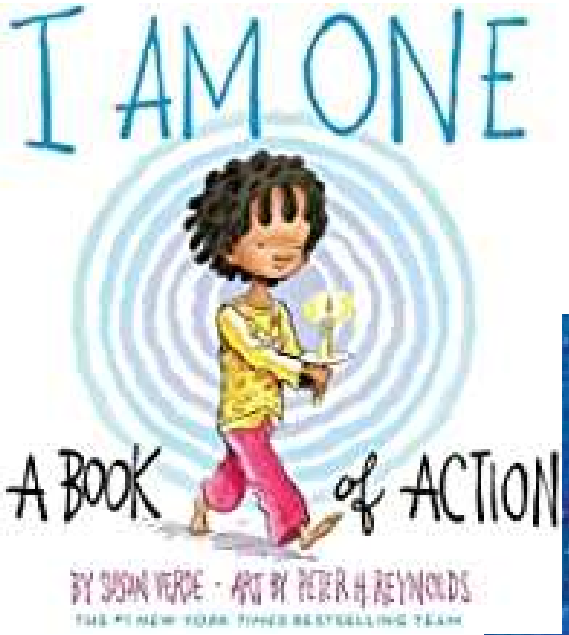
# Help Children Heal Trauma

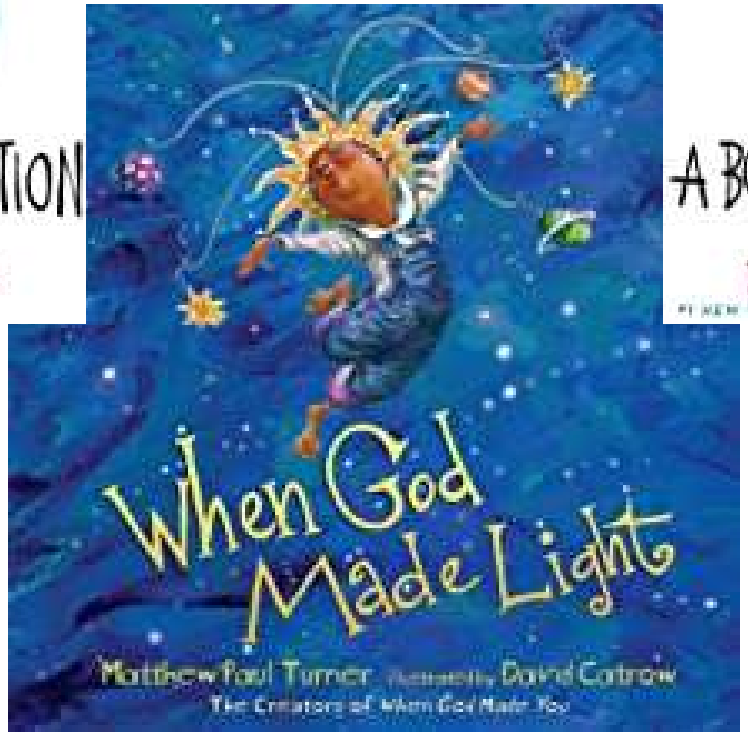


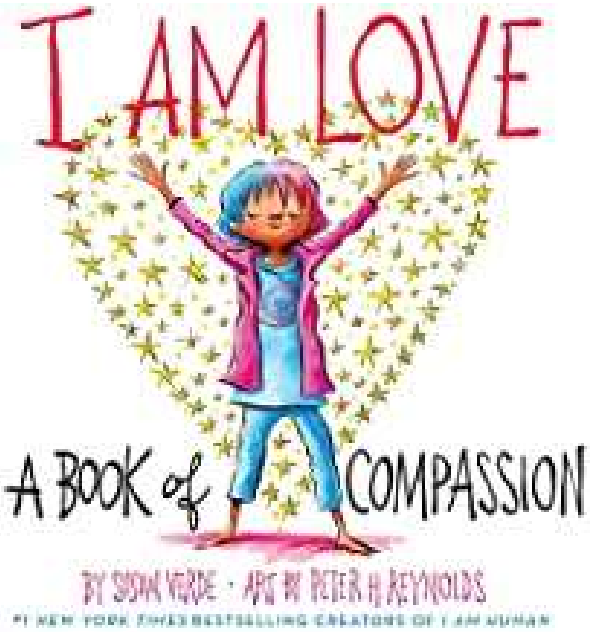



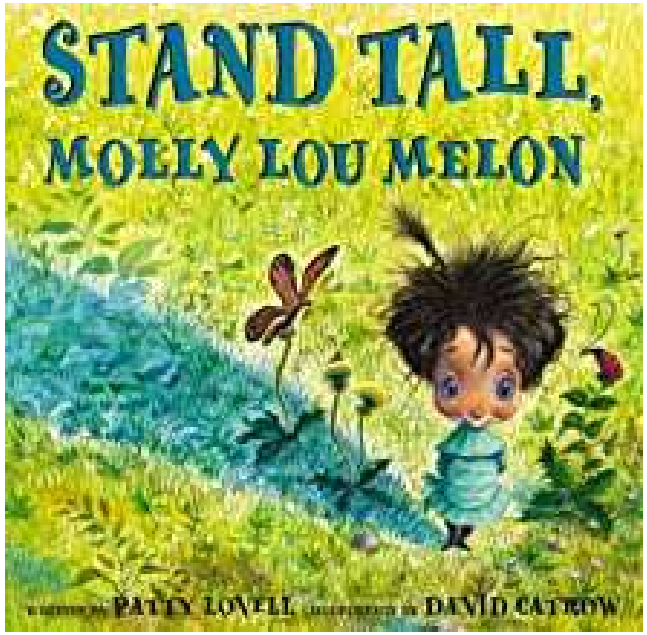
# Teach Children To Value Themselves

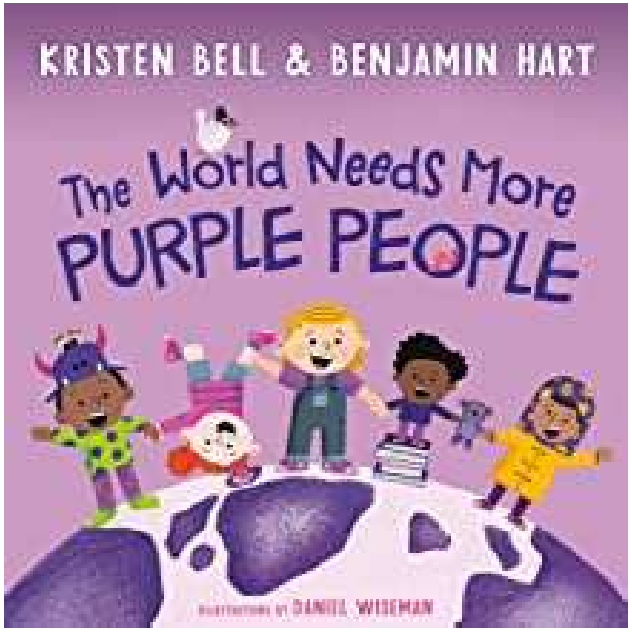


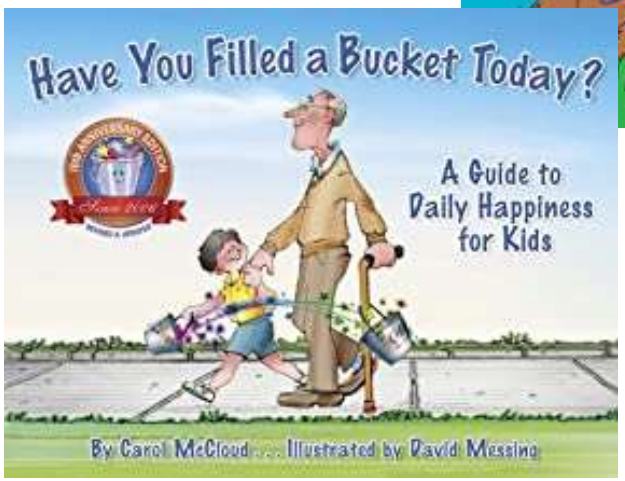



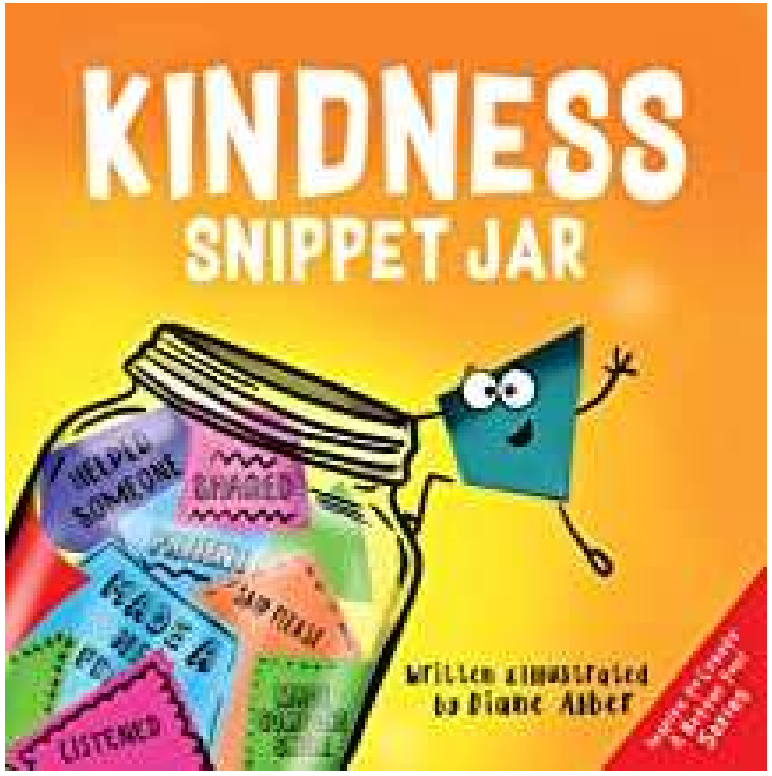
# Teach Children To Accept & Love Who They Are



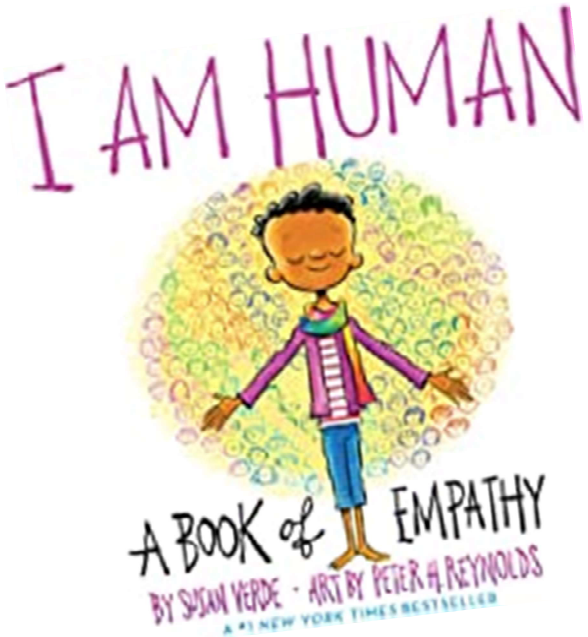


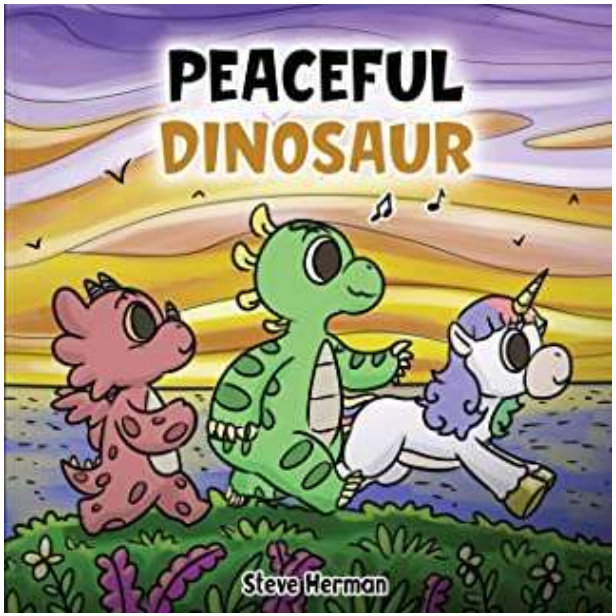
# Teach Children To Be Kind & Have Compassion for Self & Others

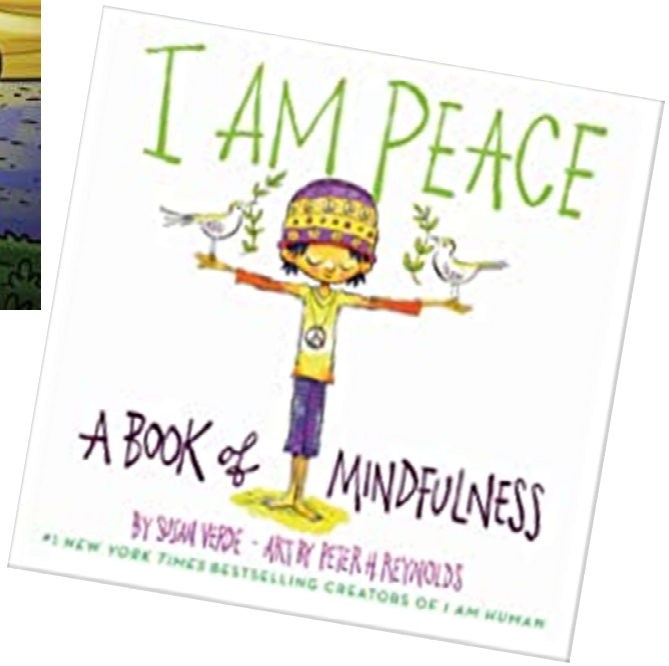


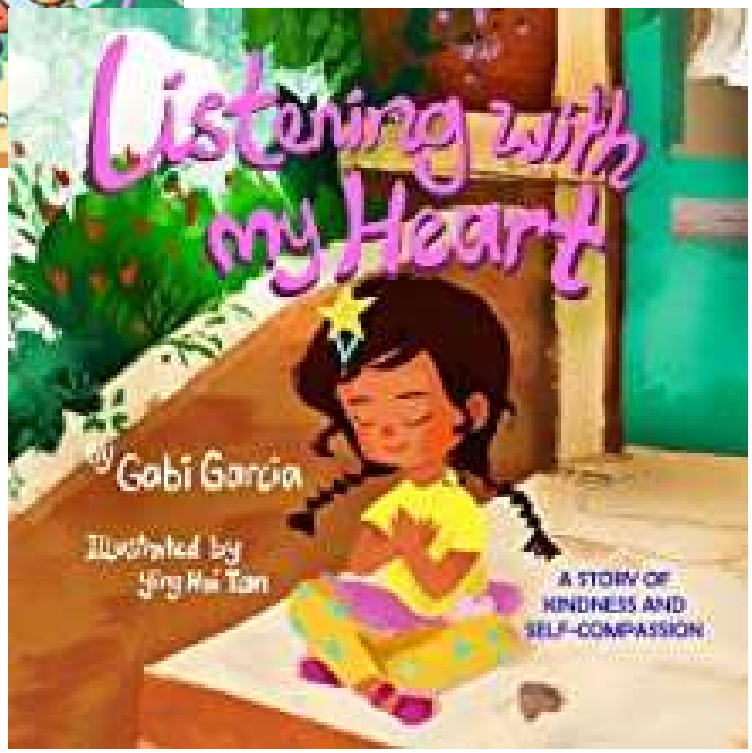
# Teach Children About Peace & Humanity

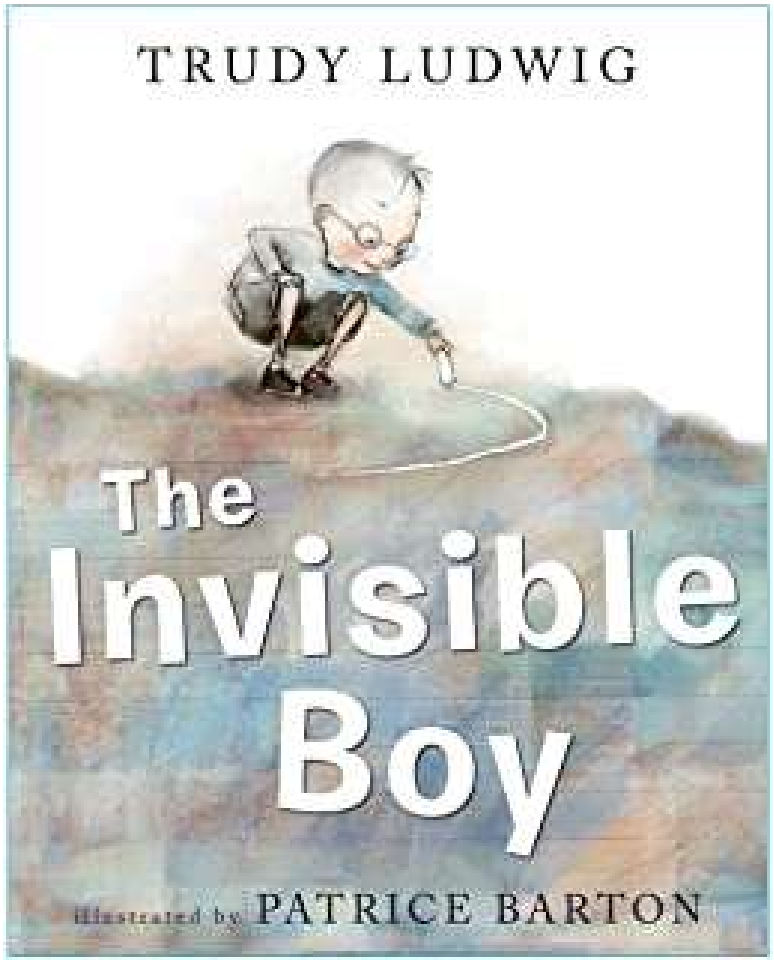


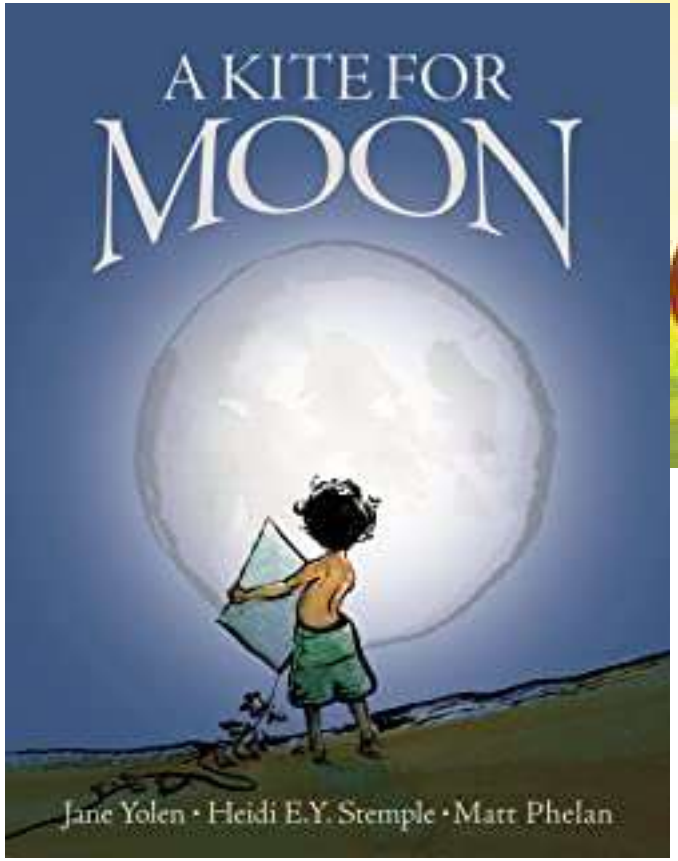



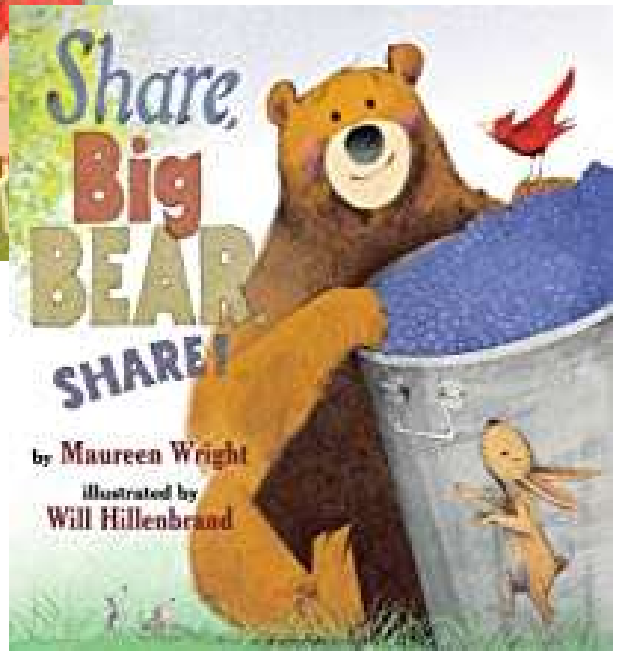
# Teach Children How To Be And Have Friends



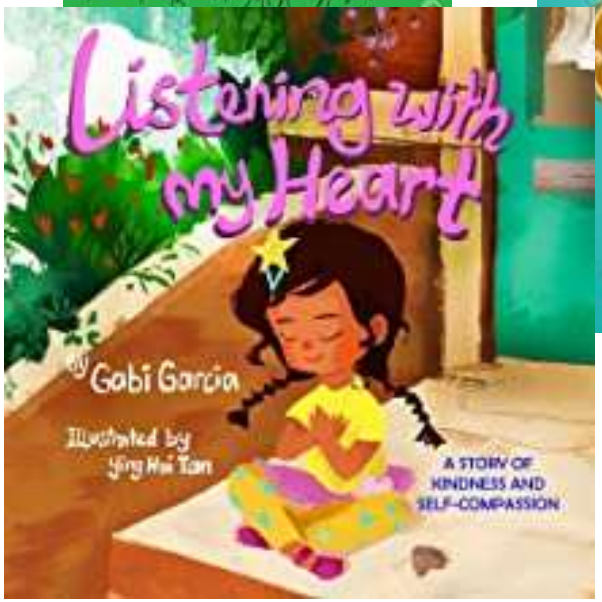



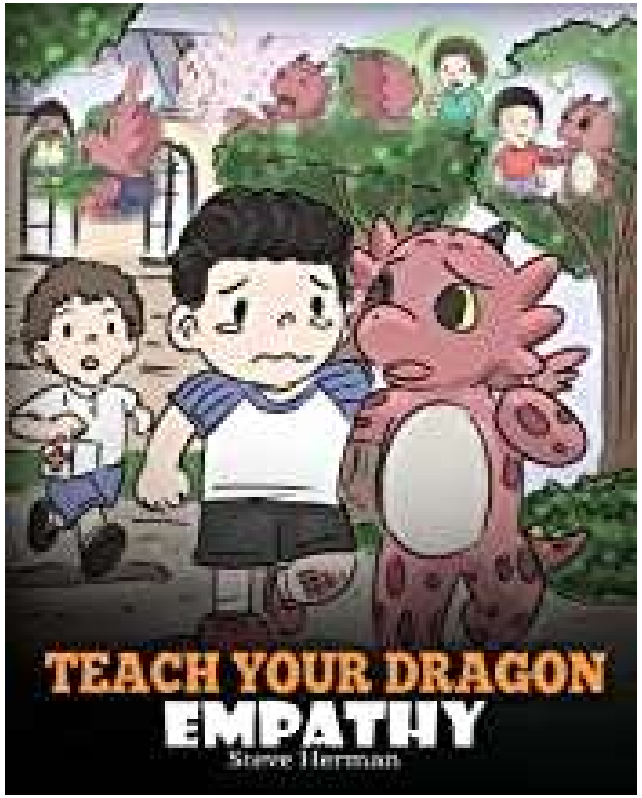
# Teach Children To Share



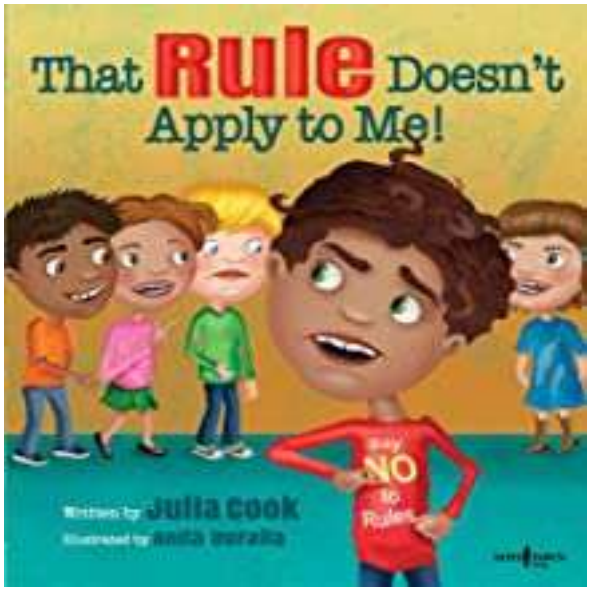



# Teach Children To Have Empathy & Compassion for Self & Others

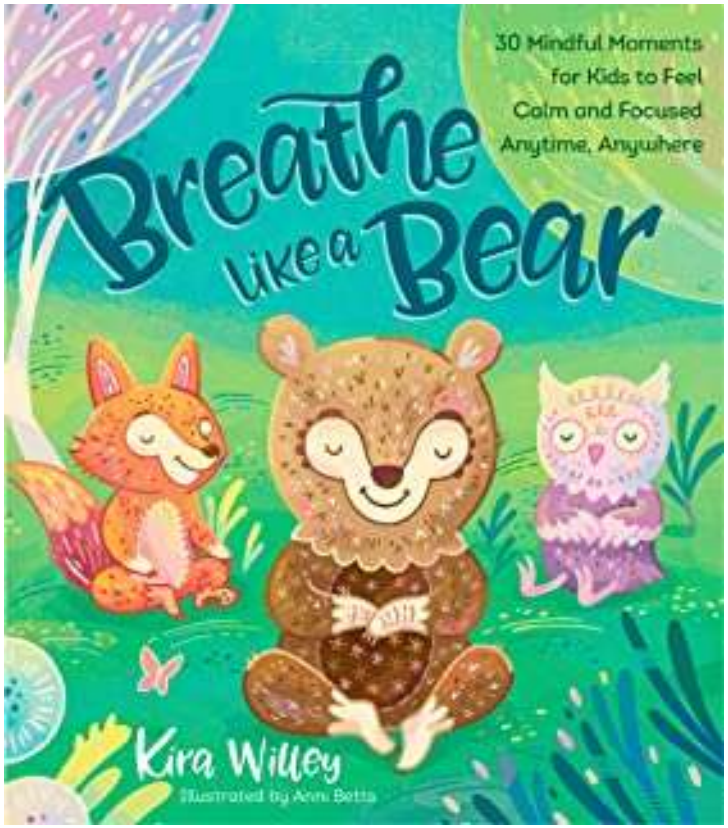


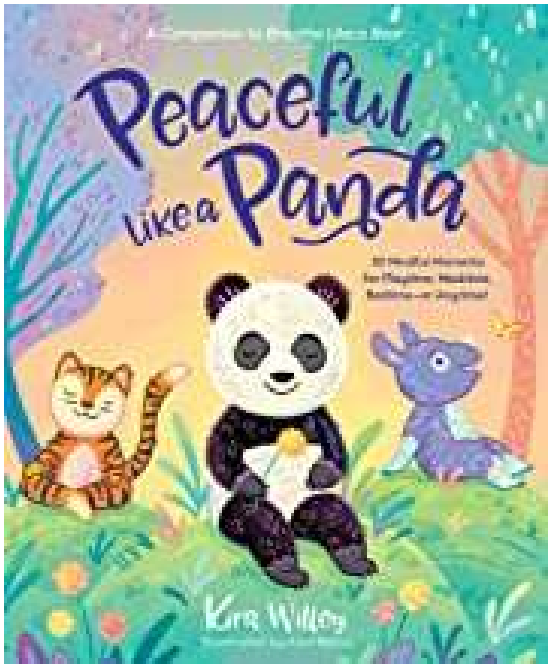



# Teach Children To Listen And Follow Directions



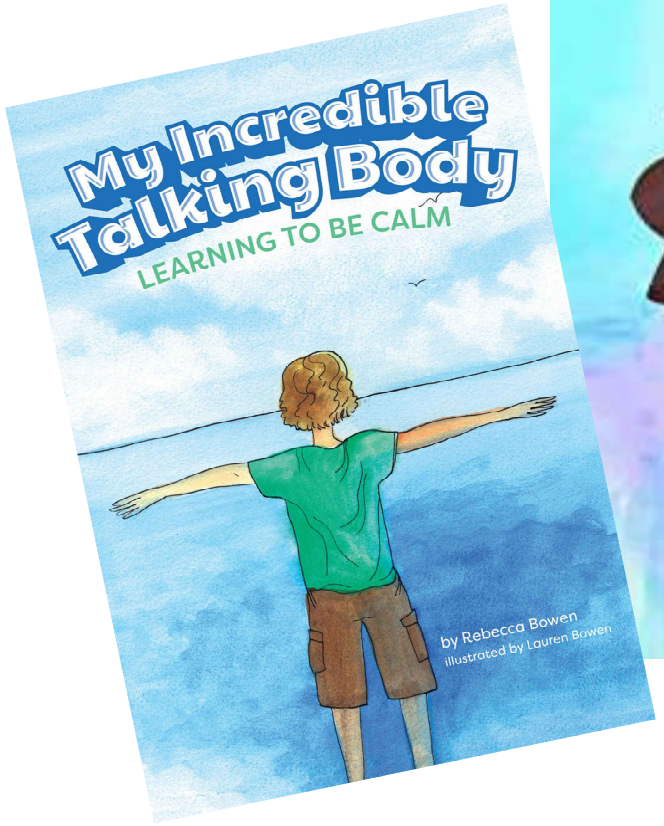
# Teach Children To Self-Soothe Self-Calm, Practice Impulse Control & Self-Regulate

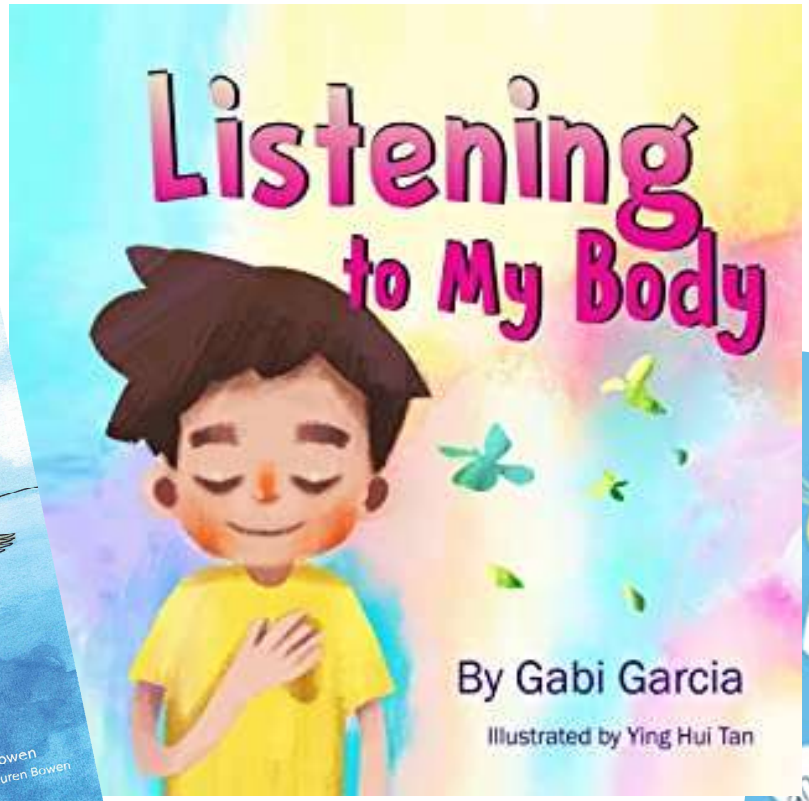


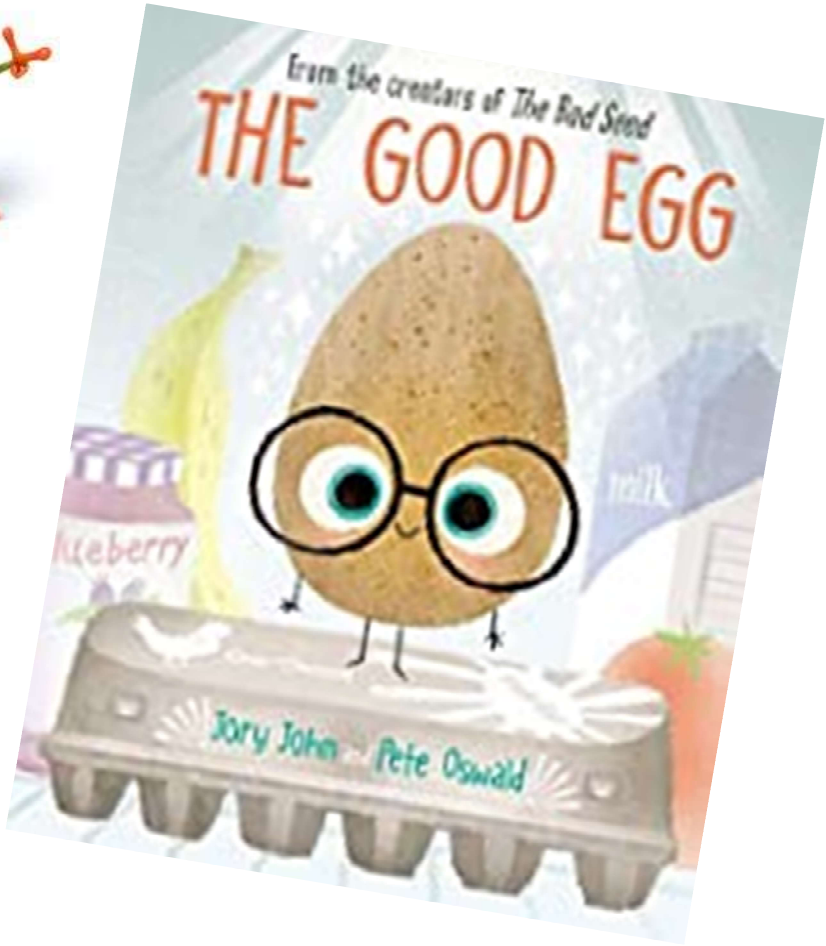
# Teach Children To Calm Themselves

# Teach Children To Notice Bodily Sensations & Emotions

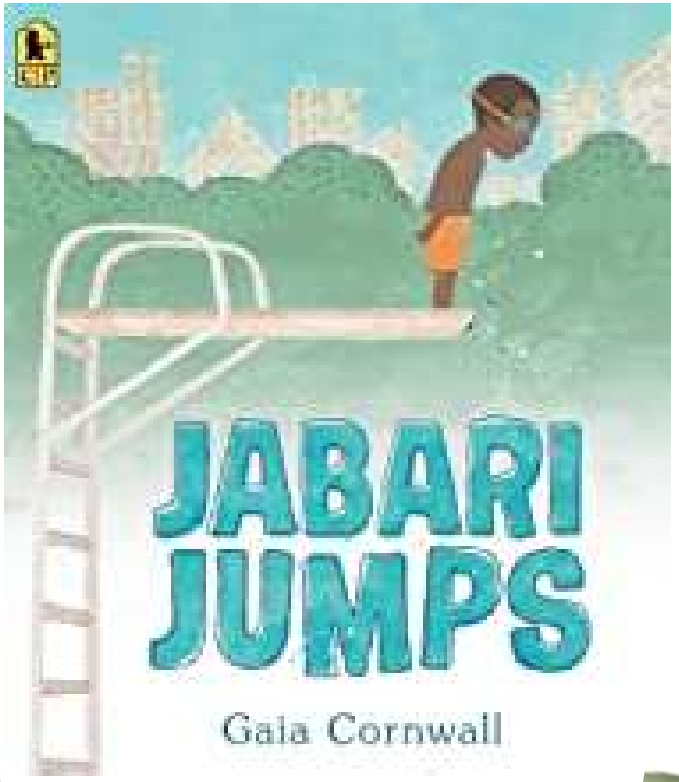


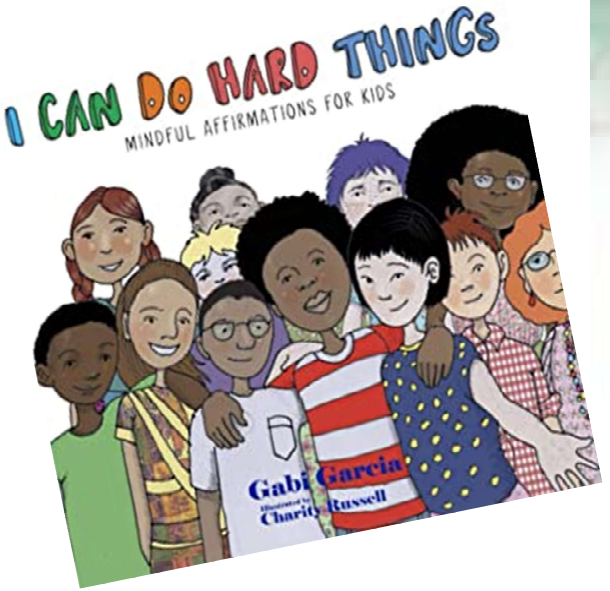



# Teach Children To Feel Pride & Responsibility

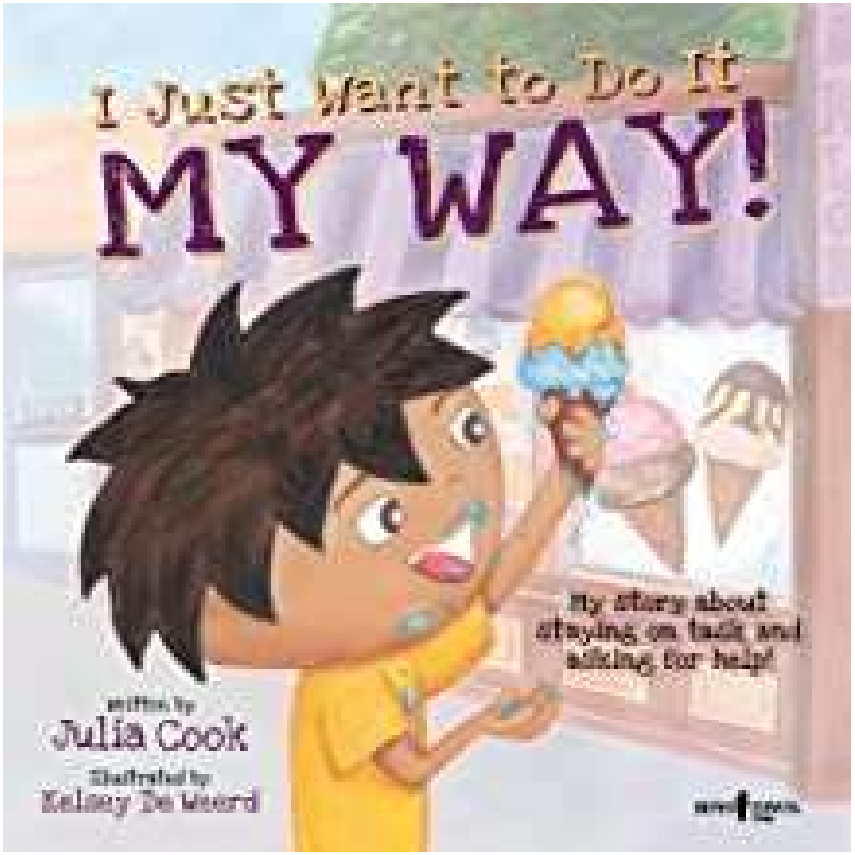


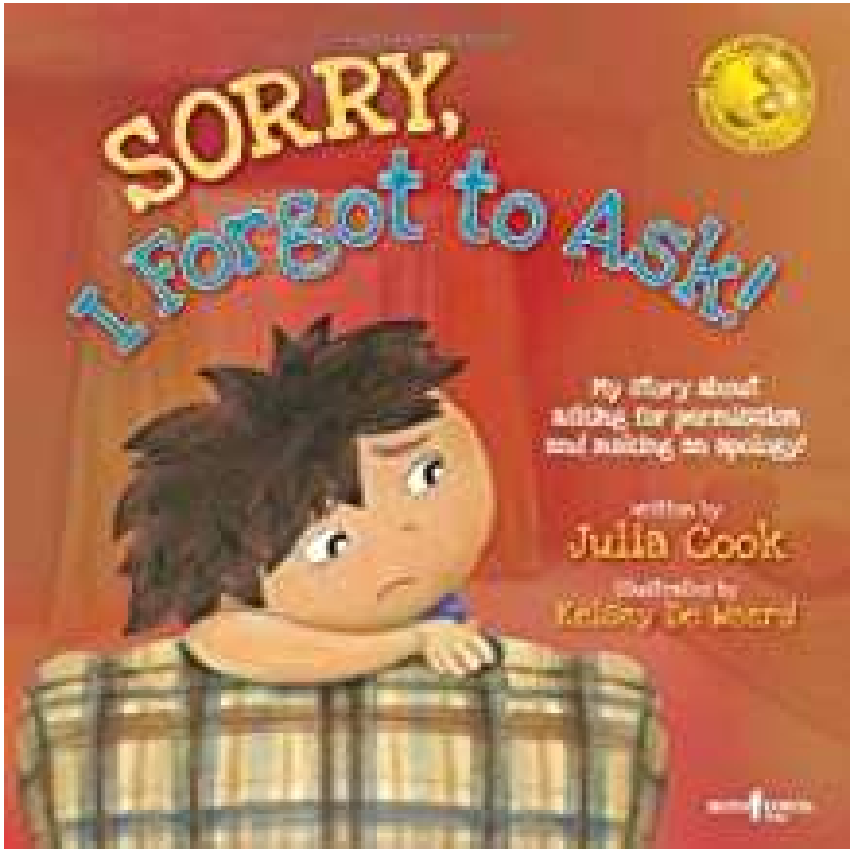
# Teach Children To Persevere & Keep Trying



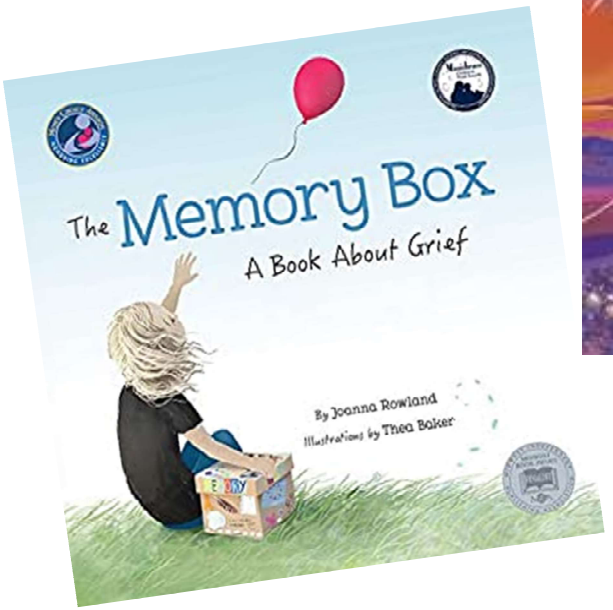



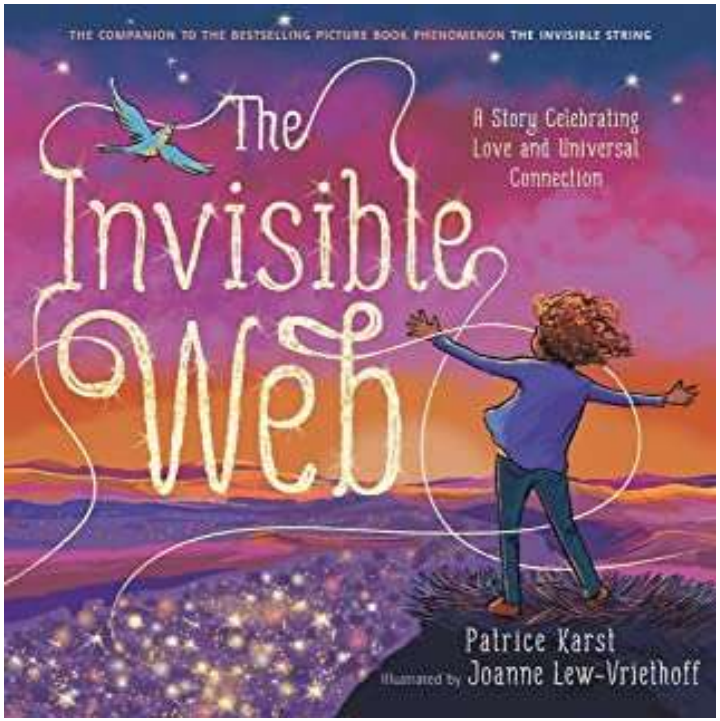
# Teach Children To Ask For Help From An Adult

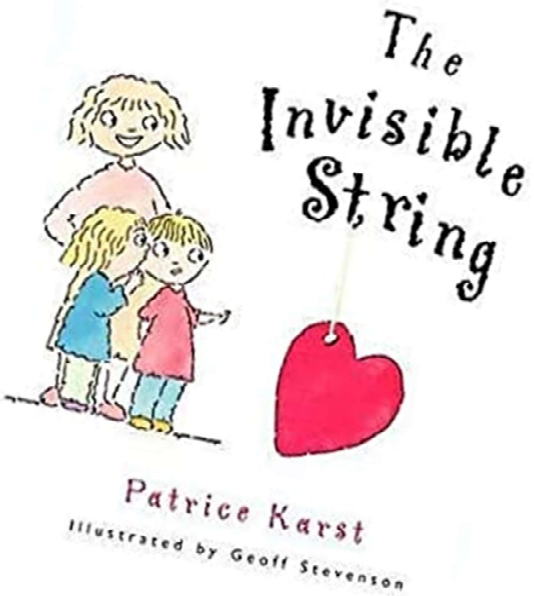


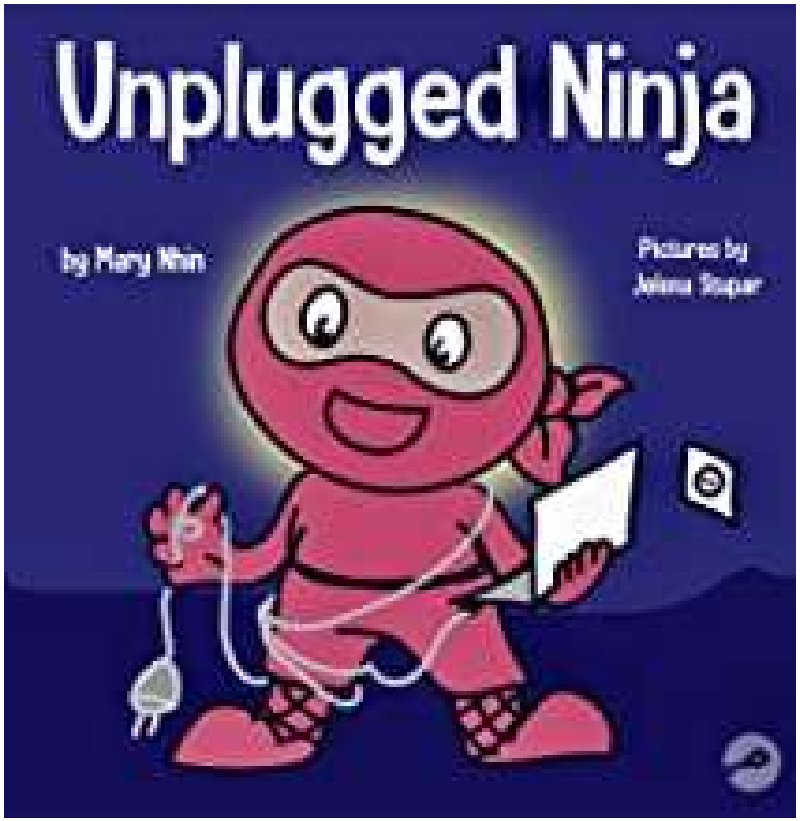
# Teach Children To Soothe Loss Grief & "Missing" Feelings

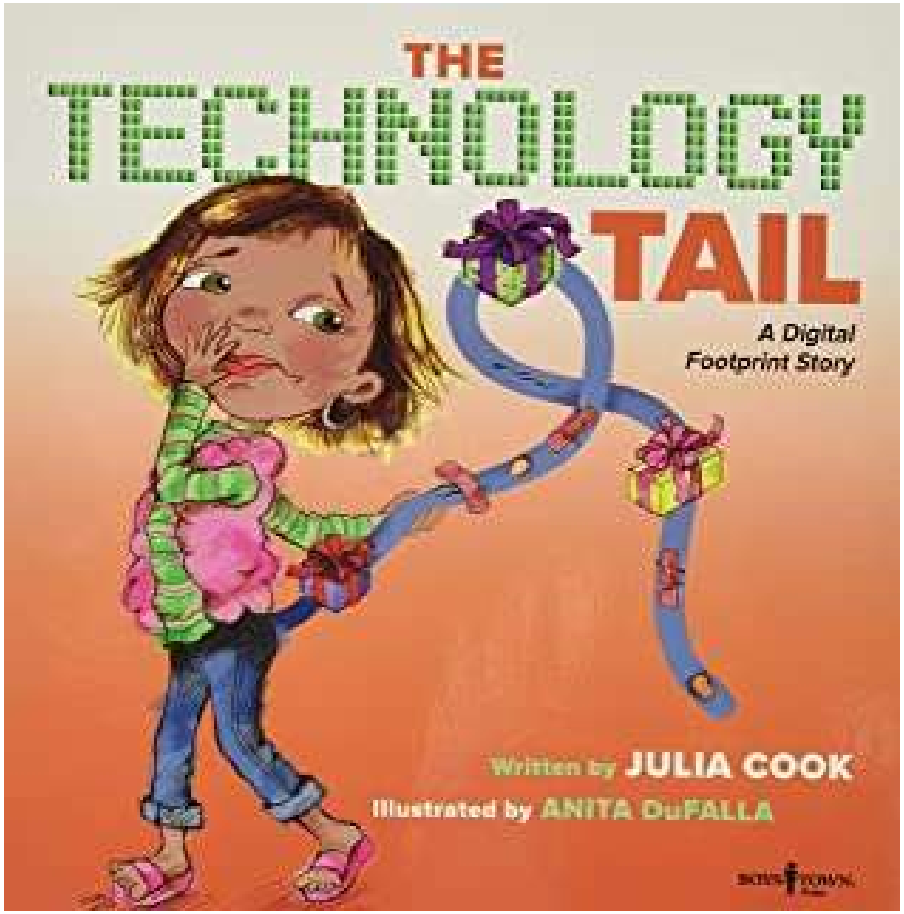


# Teach Children To Unplug From Technology



# OrchardHumanServices.org/Trauma

**Dr. Darleen Claire Wodzenski is an author, national presenter, and clinical mental health counselor who promotes recovery from trauma, attachment disorder, and challenges associated with neuroatypicality. She is also a special education consultant and teacher, parent, and professional trainer.**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# Brain-Based Coronavirus™ Trauma Resolution

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