

Assistive Technology: Calming the Jitters

Fidgets, Alternative Seating, Weighted Vests, and Calming Apps

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Tools for Life | Center for Inclusive Design and Innovation |
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CREATING THE NEXT®

Learning and Movement

- Research shows that movement increases blood and oxygen flow, which positively affects cognitive development, physical health, and mental well-being
- Keeping the body active promotes mental clarity by increasing blood flow to the brain, making activity vital to both learning and physical and neurological health
- Studies show that children who are more active exhibit better focus, faster cognitive processing, and more successful memory retention than kids who spend the day sitting still



Movement Helps Learning!

2003 study in American Journal of Occupational Therapy concluded that students with ADHD using ball chairs were able to sit still, focus and write more words legibly

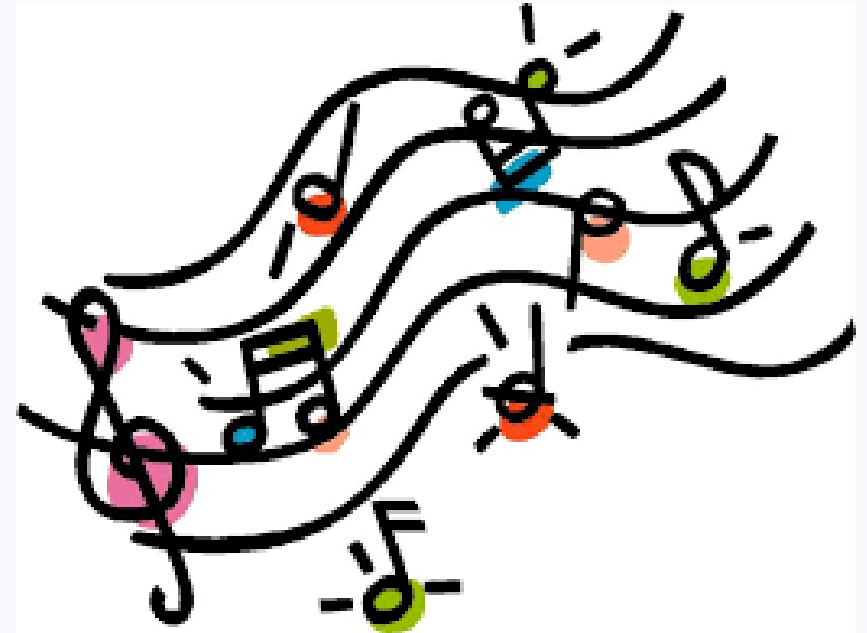
2007 Mayo Clinic study concluded that a chair-less classroom increased attention and improved learning

2008 University of Central Florida study

- Children need to move to focus during a complicated mental task
 - Especially those with attention-deficit/hyperactivity disorder (ADHD)—fidgeted more when a task required them to store and process information rather than just hold it.

Music for Calming

- Studies have shown that music has a positive response on the brain
- Research has shown soothing music can decrease blood pressure, heart rate, and anxiety
- Researchers found that “music engages the areas of the brain involved with paying attention, making predictions and updating the event in memory”
- Can drown out background noise



DIY – Pencil Fidgets

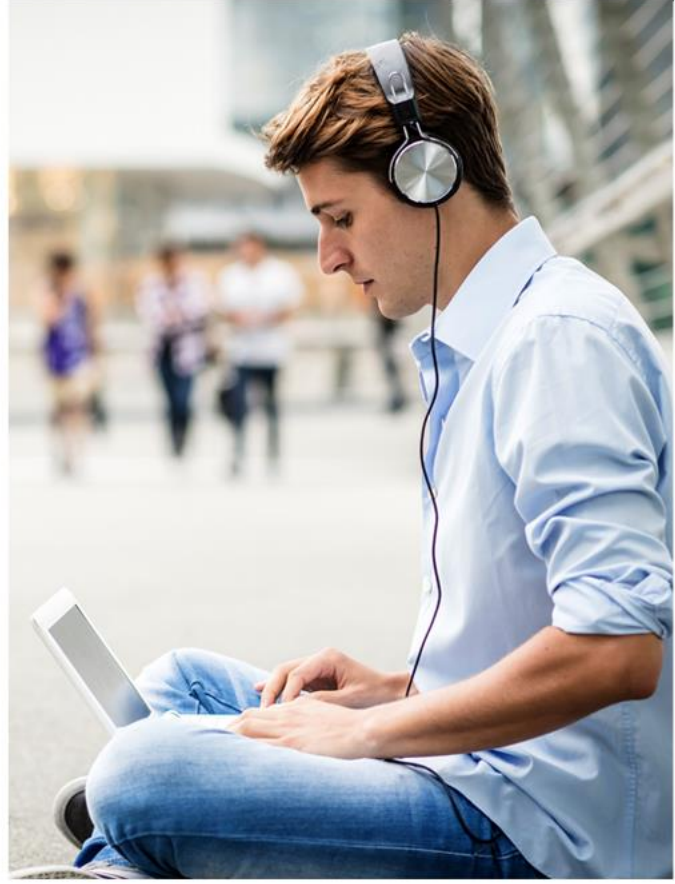
- Pipe cleaners
- Rubber bands
- Pony beads
- [DIY pencil topper fidget toy](#)



DIY – Pencil Fidgets (continued)

- Fidget Pencil Pack
- https://www.therapro.com/Fidget-Pencils_3.html





Alternative Seating

Vidget Chairs

- Allows for movement
- Allows for sensory
- 3 ways to use
- Active seat
- Desk
- Stool
- Comes in many different sizes
- www.viggikids.com



vidget[®]
3-in-1 flexible seating system

Dump the Chair?

- Engages core muscles
- Less impulsivity
- Increase focus

<i>Height</i>	<i>Recommended ball size</i>
Under 4'8"	45 cm ball
4'8" to 5'3"	55 cm ball
5'4" to 5'10	65 cm ball
5'10 to 6'4	75cm ball

For kids 5 years and younger, always use a 45 cm ball.
(Exercise Balls for Dummies)



So Many Choices!

- Zenergy Ball Chair
- Kore Wobble Stools
- Scoop Chairs
- Disco cushion



Locus Seat by Focus

- Half standing/ half seating
- Encourages movement
- Might be good for science labs when table seem to be higher
- <https://www.fully.com/chairs/or-standing-desks/locus-seat-by-focal.html>

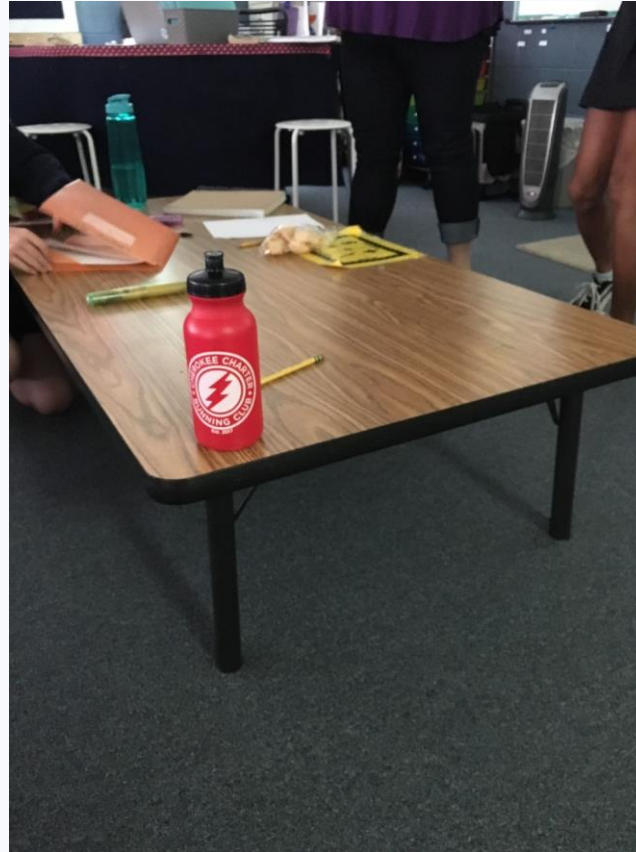


Classroom with Flexible Seating



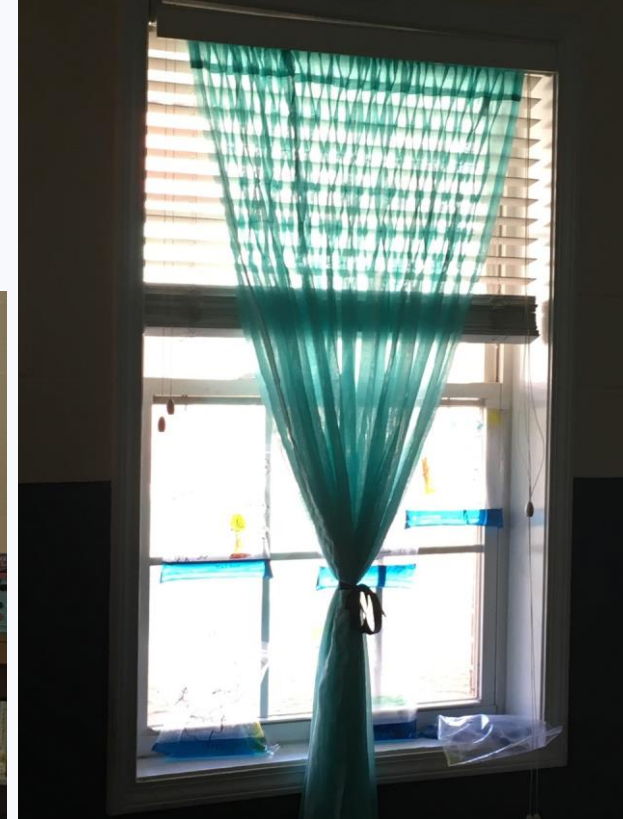
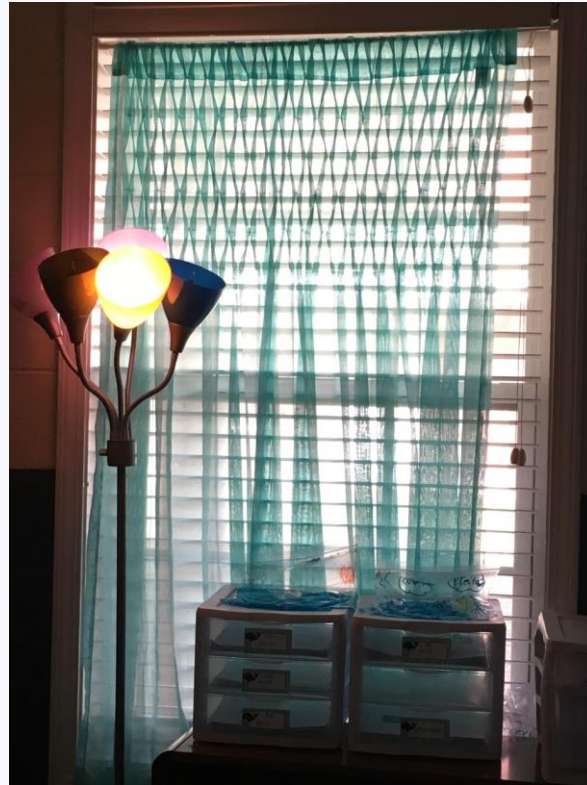
Gelinas, Gina. "Flexible Classroom Seating". 2019. Serrano, Megan's Classroom. Cherokee Charter Academy, Canton, GA, IMG file. (taken and used with permission).

Classroom with Flexible Seating (2)



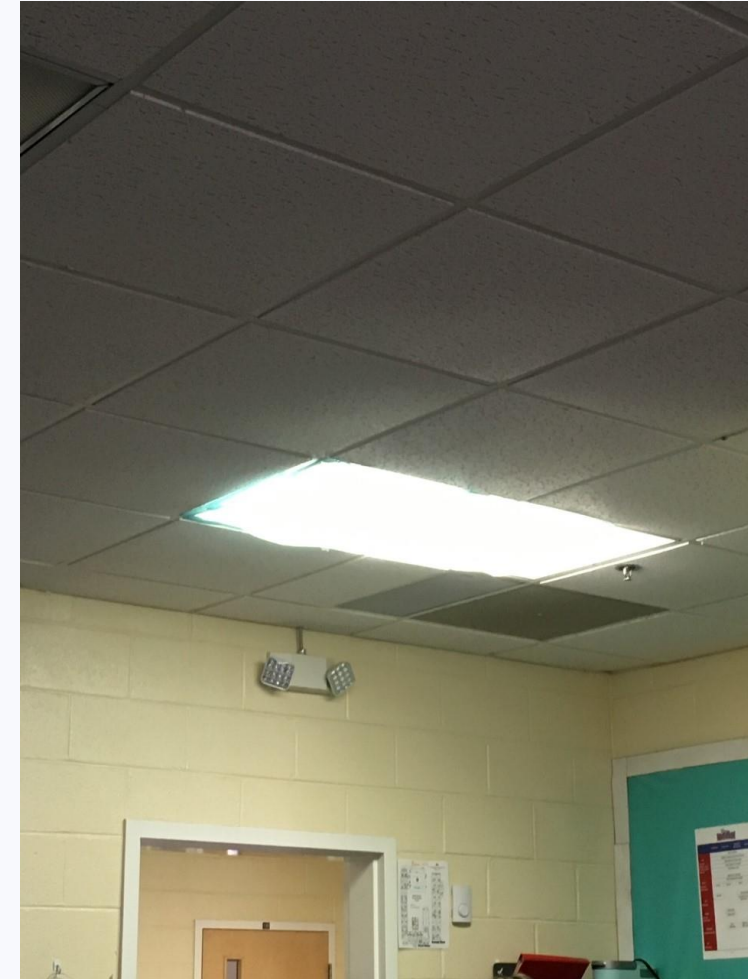
Gelinas, Gina. "Flexible Classroom Seating". 2019. Serrano, Megan's Classroom. Cherokee Charter Academy, Canton, GA, IMG file. (taken and used with permission).

Calming Classroom Lighting



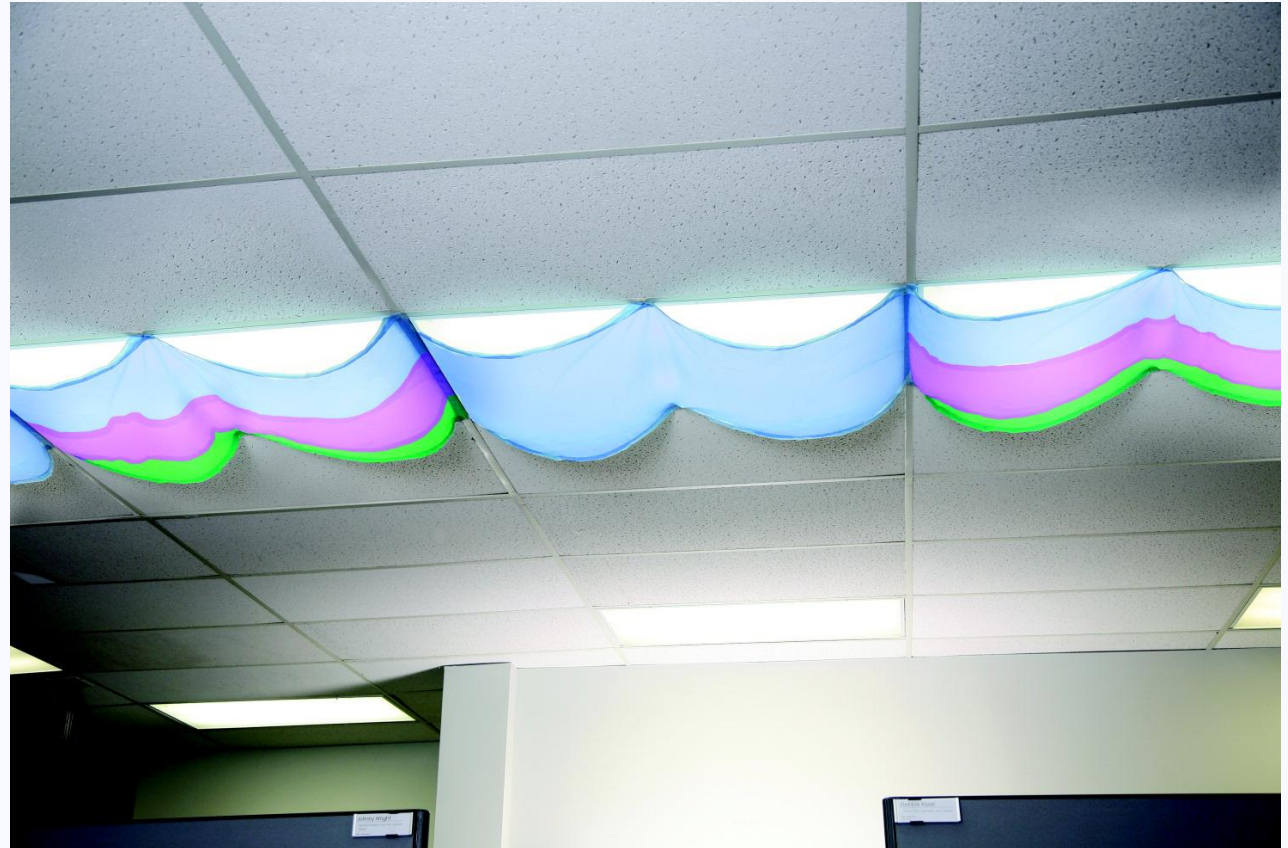
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Calming Classroom Lighting (2)



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Calming Classroom Lighting (3)



Fluorescent Lighting & Children's Behavior (Andrea Godbout)



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“New Research Researchers and teachers have concluded that some children are attentive and engaged in softly lit spaces while others need bright light to stay focused. In 1982, St. John's University researcher Jeffrey Krinsky found that fourth-graders who showed a preference for bright or dim light performed better at reading tasks in their preferred environment. A 2002 study by the Hescong Mahone Group for the California Energy Commission found that the amount of natural light from windows and skylights has a measurable positive impact on student work and behavior. The task has changed from figuring out how all children can learn under the same lights to designing spaces that can support different degrees of illumination.”¹ (Godbout, Andrea)

¹Godbout, Andrea. “Fluorescent Lighting & Children's Behavior.” *LIVESTRONG.COM*, Leaf Group, <https://www.livestrong.com/article/562238-fluorescent-lighting-childrens-behavior/>.

Standing Desks

- Good for students with ADHD
- Can assist with staying on track
- Can increase cognitive abilities



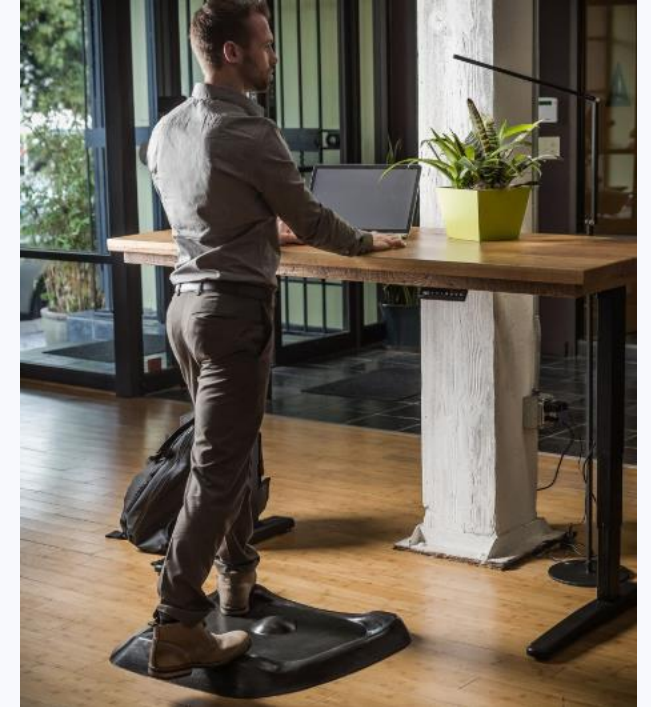
Fidget Footrests

- Standing desks can help students who find sitting still difficult
- Use of dynamic footrests can help release energy and improve focus



Anti-Fatigue Mats

- Topo Anti Fatigue Mat
- Wurf Board
 - Air Spring
- Butterfly Ergonomic Anti Fatigue Standing Desk Mat



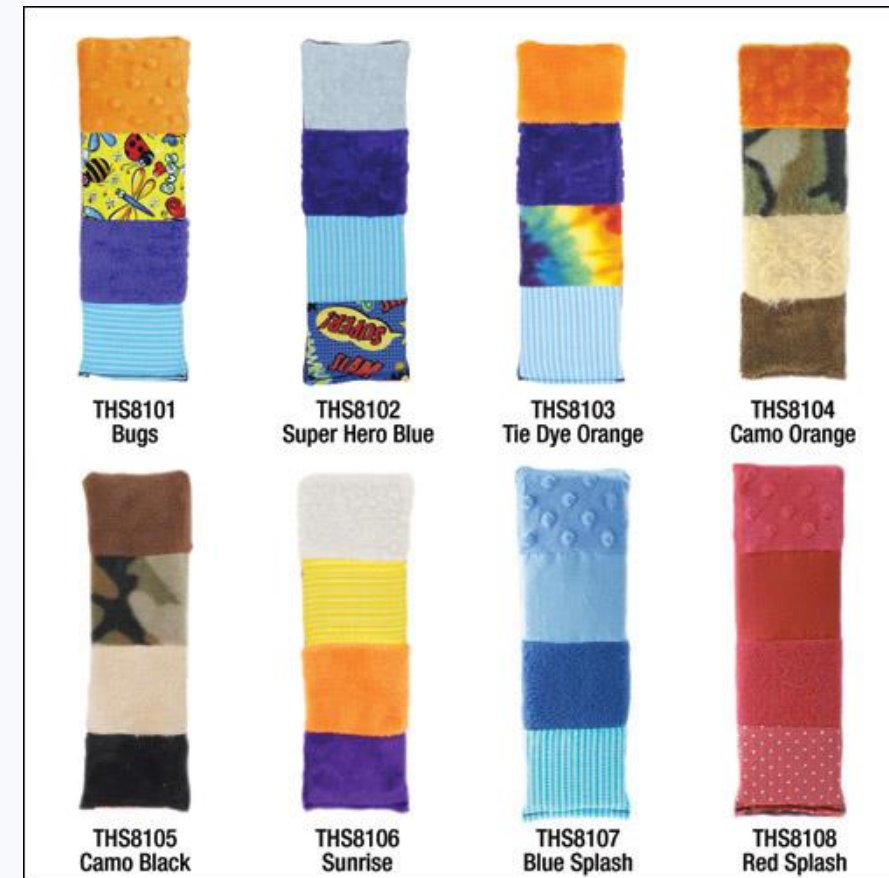
Liquid Tile Mats

- Sensory tiles
- Can be moved around
- Step on them and watch the liquid move
- Sit, step, kneel or press with hands
- Encourages visual processing and sensory stimulation



Low Tech Fidget Ideas

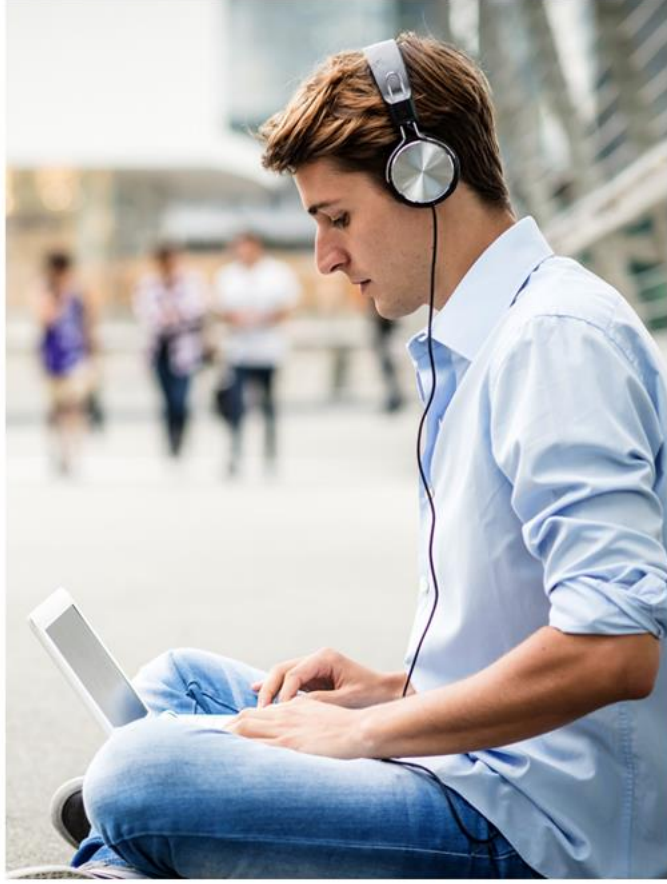
- Placing Velcro or textured fabric strips under the desk so that students can touch and feel
- Create a standing/ moving circle for a quick break
- Carry some weighted books down the hallway or to another classroom
- Loop exercise band to chair or table legs
- Make and play with slime
- Play-Doh
- Chewing gum/ hard candy



For Channeling Energy

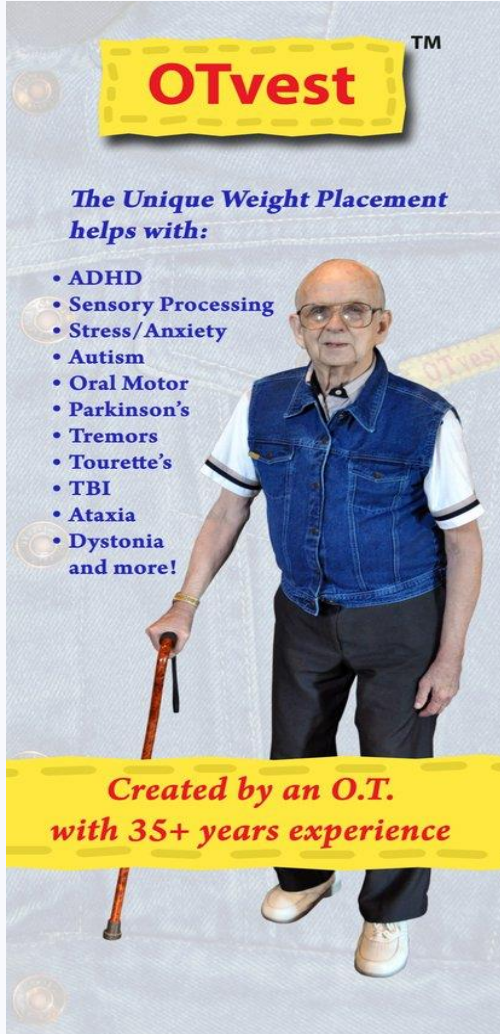
- Anxiety and nerves can be seen in students who bite their nails or pick at the skin
- Strategies:
 - Finger guards
 - Fidget items that can be torn apart
 - Fidgets that can be pulled
 - Therapy Shoppe makes a kit for those who pull hair or pick skin





AT for Physical and Emotional Supports

OT Vest



OTvest™

The Unique Weight Placement helps with:

- ADHD
- Sensory Processing
- Stress/Anxiety
- Autism
- Oral Motor
- Parkinson's
- Tremors
- Tourette's
- TBI
- Ataxia
- Dystonia and more!

Created by an O.T. with 35+ years experience



Experience
the calm and
stabilizing effect
of the denim, weighted,
OTvest™

T. Jacket

- T. Jacket by T. Ware
- Wearable technology
 - Provides deep touch pressure to calm/soothe individual who is anxious or stressed
 - Pressure controlled via smartphone iOS or Android



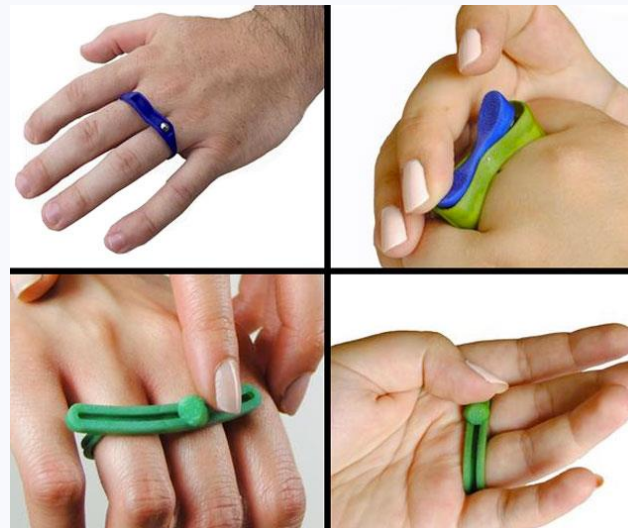
Other Wearable Compressions

- Work with an Occupational Therapist
- Compression Marble Maze Sleeve
- Weighted Sleeves for arms or legs
- Deep pressure compression belts
- Shoulder and lap weights



Fidget Ring

- Similar to fidget toys; except you can wear them!
- Helps for people who are anxious or have trouble focusing on the something



Fidget Suitable for Chewing

- Chewable pencil tops
- Chewable necklaces
- Chewable bracelets



Fidget Suitable for Chewing (1)

- Chewable necklaces
- Chewable bracelets
- <https://www.januarymoon.com/sensory-collection>



Fidget Suitable for Chewing (2)

- Chewable necklaces
- https://www.therapro.com/Cherry-Red_2.html#



THS8205 Deep Sea Blue

Fidget Rules

Understood.org

Teacher Tip: The Dos and Don'ts of Fidgets for Kids (The Understood Team 12-20, 2016)

Teaching kids how to use fidgets

- A strategy in their “tool kit” for helping focus, listen or calm their body
- Help them identify times they need a fidget
- A fidget is a tool – not a toy
- Set up rules, enforce the rules
- Finding the right fidget

<https://www.understood.org/en/community-events/blogs/teacher-tips/2016/12/20/teacher-tip-the-dos-and-donts-of-fidgets-for-kids>

Fidget Contracts

Understood.org

Download: Sample Fidget Contract (Amanda Morin)

<https://www.understood.org/en/family/managing-everyday-challenges/daily-expectations-child/download-sample-fidget-contract>

- Without the right guidance, fidgets can be misused
- A contract can set expectations
- Can be an agreement on when, where and how the fidget can be used
- Use this contract as is, or a guide to create your own contract (parentally designed, will need to be revised for teacher use)

Fidget Contracts on Teachers Pay Teachers, fee-based, account required

- <https://www.teacherspayteachers.com/Browse/Search:fidget%20contract>

- Products for adult and children
- Preloaded audio sedation tracks
 - Acoustic masking signals work to make typically distracting noises unapparent to the user
 - Audio recordings to help with relaxation and focus
- <https://www.b-calmsound.com/>



Apps for Meditation/Calming

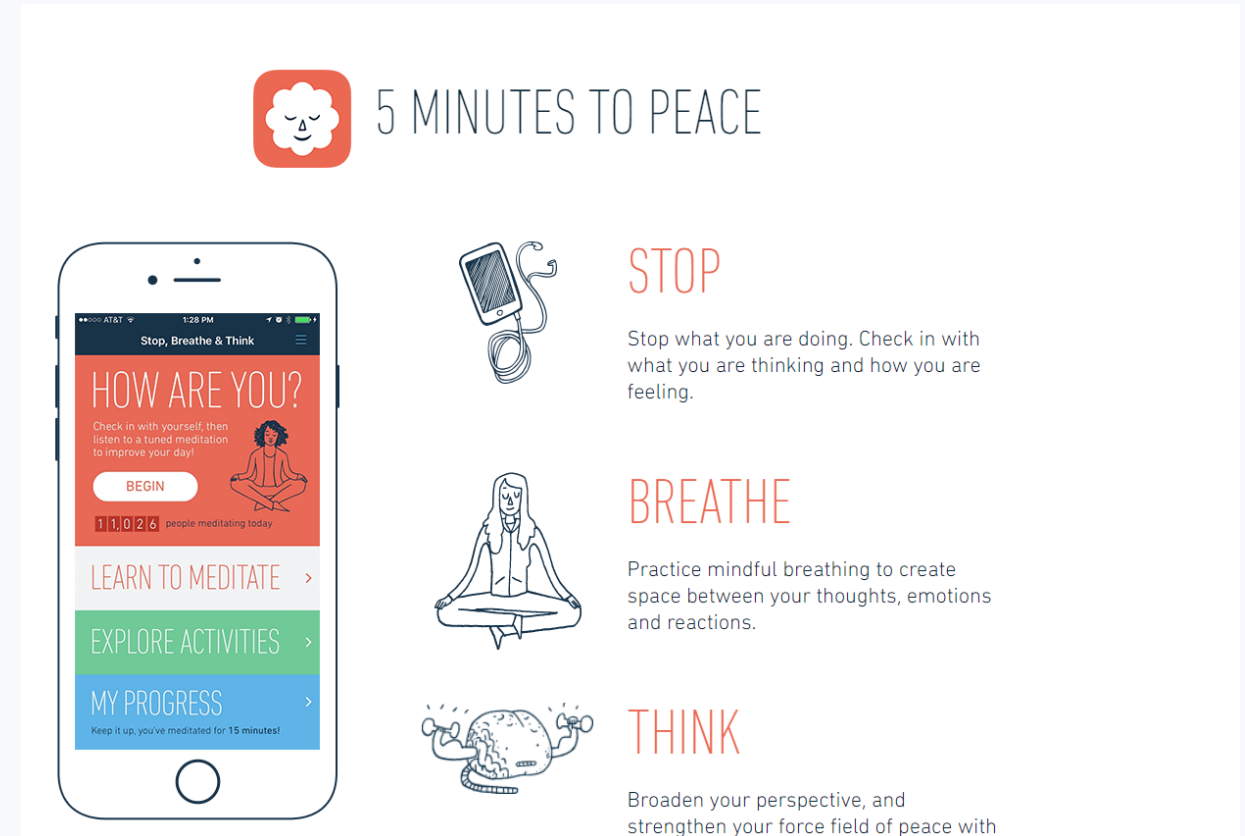
Calm

- FREE for Teachers
- The Calm School Initiative
- Guided meditations and mindfulness
- Pre K- high school
- <https://www.calm.com/schools>



Stop, Breathe, Think App

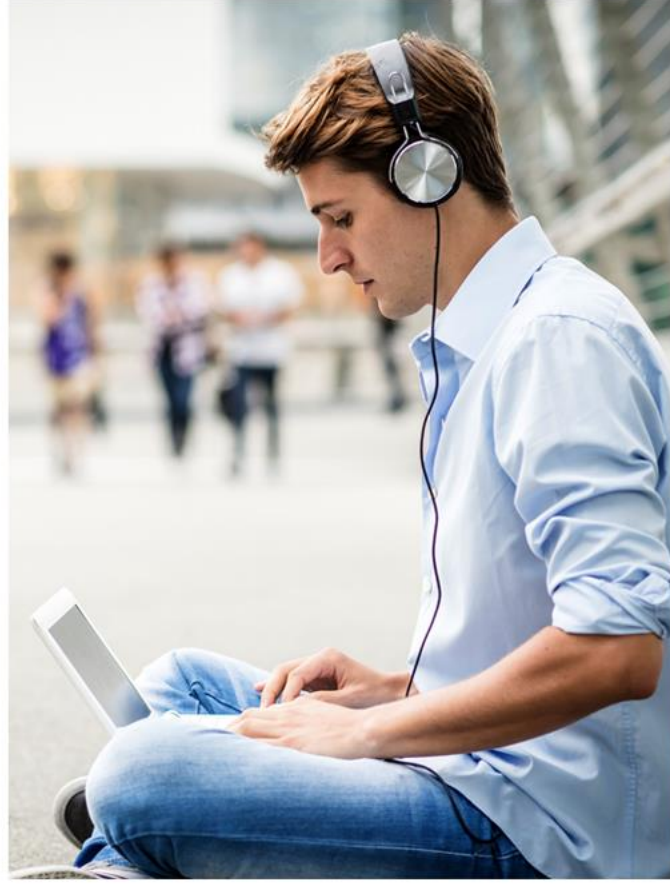
- Ability to check-in with your feelings
- Short Activities
- Meditation Timer
- Track Moods and Progress
- Free but has in app purchases



Super Stretch Yoga HD App

- 12 Yoga Poses
- Animated videos to show how to do pose
- Breathing breaks
- Free

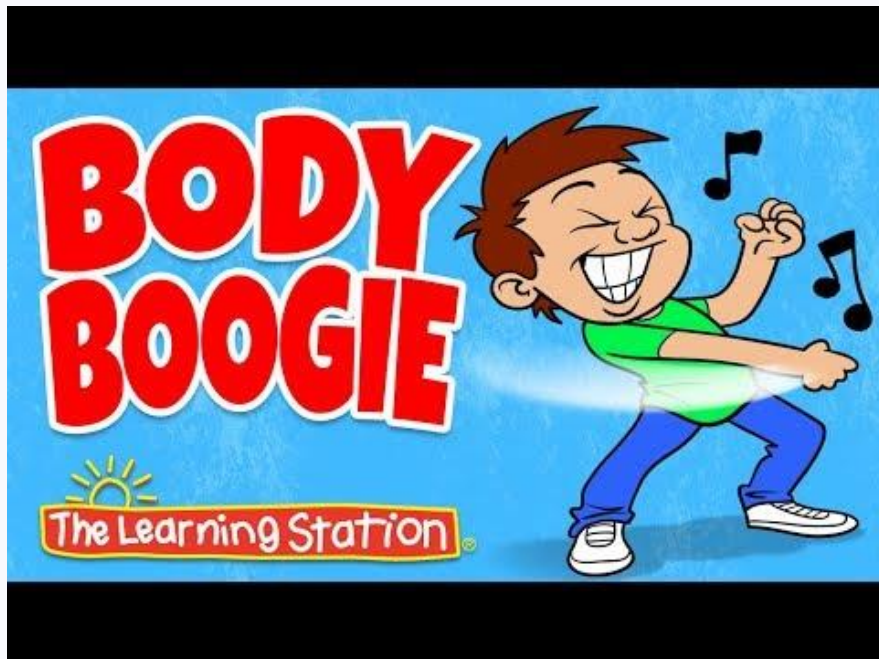




Brain Break!

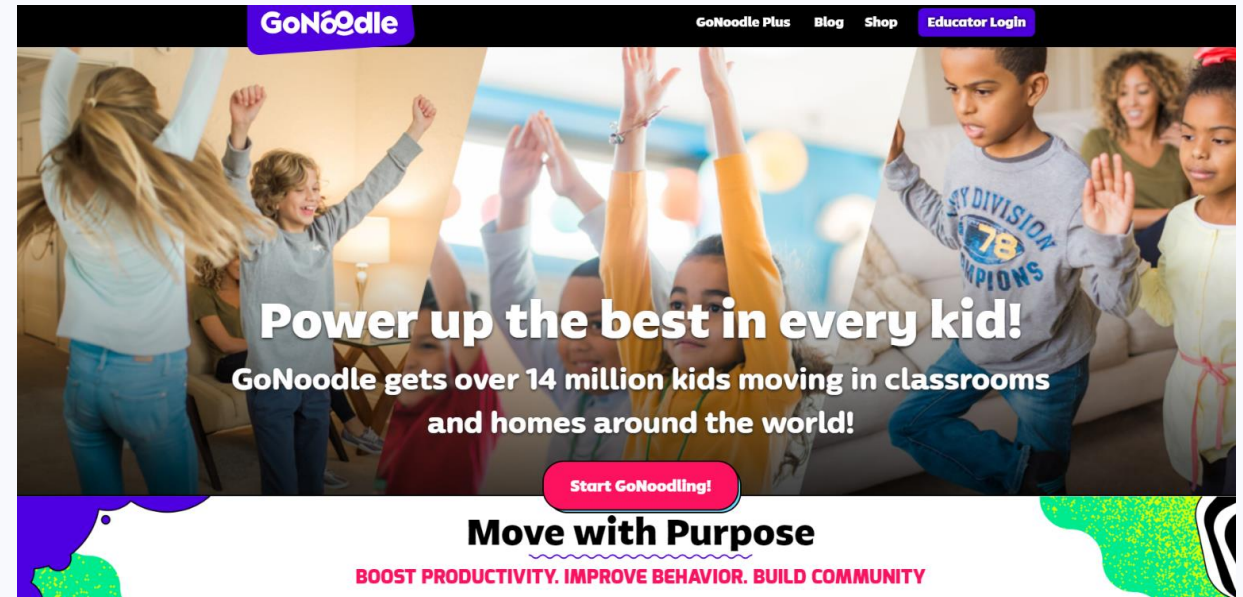
The Learning Station

- [The Learning Station](#)
- Brain Break with Movement
- Can allow for refocus after



[Brain Break Video!](#)

- Free to sign up
- Educators and Student login
- Lots of Categories
- Mindfulness
- Math
- Science
- Movement
- [The Llama Song](#)



Read and Ride Classes

- The ability to ride an exercise bike or use an under-the-desk bike while reading
- Ward Elementary in Winston-Salem, NC 2010
 - Showed an increase in test scores
 - “As the elementary school analyzed testing data at the end of the school year, they found that students who had spent the most time in the program achieved an 83% proficiency in reading, while those who spent the least time in the program had failing score – only 41% percent proficiency.”
- Students go by their own pace



Under-the-Desk- Solutions



Your TFL AppFinder: What Can I Find?



Search by:

- App name
- Categories
 - Books/reading
 - Education
 - Environmental adaptations
 - Hearing
 - Vision
 - Navigating
 - Cognition, learning, and development
 - Personal care and safety
 - Productivity
 - Communication
 - Therapeutic aids

Questions



Resources

- <https://www.edweek.org/tm/articles/2017/08/08/learning-in-motion-bring-movement-back-to.html>
- <https://www.opencolleges.edu.au/informed/features/standing-desks-every-classroom/>
- <https://literacyandlanguagecenter.com/the-benefits-of-movement-in-the-classroom/>
- https://www.educationworld.com/a_news/read-and-ride-program-finds-improvement-student-learning-454116210
- <https://www.fastcompany.com/3036607/this-school-has-bikes-instead-of-desks-and-it-turns-out-thats-a-better-way-to-learn>
- <https://www.fnu.edu/benefits-studying-music/>

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