

CFCE
OFFICE OF
FAMILY AND COMMUNITY
ENGAGEMENT

DISTRACTED, DISORGANIZED, AND DISTRAUGHT

Empowering kids to grow up successfully
in a digital world

Aubrey Schmalte OTR/L, SIPT

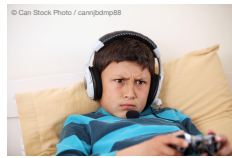
Hosted by: KT Murphy Elementary School PTO

*How has the world (and your home)
changed with technology being
everywhere?*

How many things did you do before 8am?

*Where's the white space??
Space to calm, to be bored, to exercise, to get creative*

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There is no "off" button and no more physical boundaries



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*Where's the opportunity to connect with people **INSTEAD** OF devices to build relationships and collaboration??*



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*Development is disrupted:
Children are getting wired for Distraction and Disorganization*



Sensory
and Information Overload

VS



Focus and Filtering to accomplish goals



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Disordered and Dysregulated
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*Marketers know how to tap into
emotions to gain attention*

Texts, Email
Slot machine Effect

YouTube
Need to be seen



Social Media,
Notifications

Need to Reciprocate

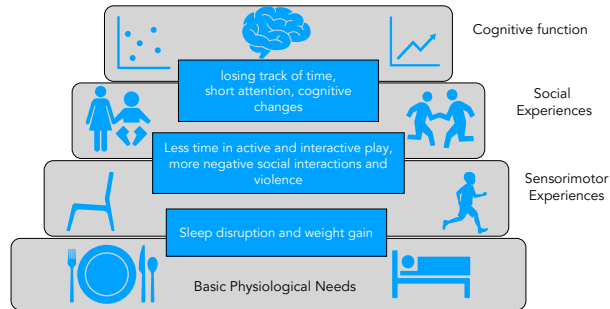
Fear of Missing out

Impulse to compare self
with others



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Behavior Changes



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We are left with Kids who are Distracted, Disorganized, and Dysregulated



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Screentime Recommendations

- Younger than 18 months, avoid use of screen media other than video-chatting.
- 18 to 24 months, choose high-quality programming, and watch it with the children to help them understand what they're seeing.
- 2 to 5 years, limit screen use to 1 hour per day of high-quality programs. Parents should co-view media with children to help them understand what they are seeing and apply it to the world around them.
- 6 and older, place consistent limits on the time spent using media, and the types of media, and make sure media does not take the place of adequate sleep, physical activity and other behaviors essential to health.

American Academy of Pediatrics



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KT Murphy Elementary School wants to collaborate with parents to...

- Improve the balance between technology and interactive learning to support development of social skills, self-regulation, attention, and learning
- Develop Tech Free/Digital Awareness initiatives throughout the school year to work toward this goal as a community
- Help children be more effective as students, peers, and siblings
- Challenge and inspire students for success in education and in life



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It is up to the teachers, parents, and collaborators in the community to understand the experience of iGen children so we can better meet their needs.

It's up to us to create an environment that helps them learn how to live in a digital world as empowered and productive members of society



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Mind, Body, and Heart

Mission: To cultivate habits of the mind, body, and heart to enrich the lives of children and the world in which they live.



Mind
• Critical
• Self-regulating
• Creative



Body
• Active lifestyle
• Healthy choices
• Self-care



Heart
• Emotional health
• Good character
• Positive decisions



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Heart: Mental Health, Relationships, Community, and Collaboration

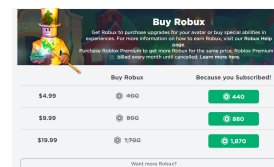


Heart
• Emotional health
• Good character
• Positive decisions



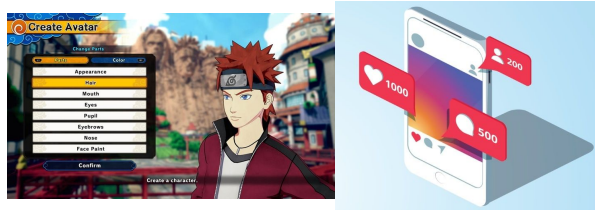
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*Technology is great
(at giving rewards to keep us connected)*



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Tech also makes kids feel important or like the Hero of Their Own Story



But just for a moment if you don't keep playing/posting.....



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There are not many regulations on the content of games and virtual realities

- Call of Duty and Fortnite: Be the last man standing, build your own weapons as a reward, people in the chat rooms of all ages and walks of life, even ill-intentioned people.
- Game designers can add all kinds of games to Roblox, sometimes exposing children to inappropriate content.
- Virtual Realities where other gamers “teach you” how to do inappropriate things. If you are traumatized in the virtual world there is no police protection
- Even if you don't play, YouTube lets you watch others play, do the Fortnite dance trends, etc and still find content that isn't age appropriate



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Social media provides a false sense of social connection, especially if kids struggle in real life interactions

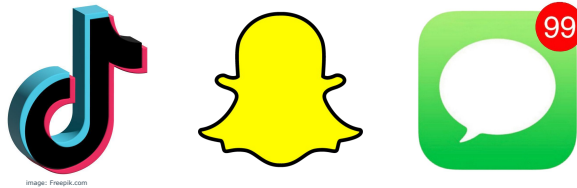


image: freepik.com



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Technology Impacts the Ability to Read Non-verbal Emotional Cues



- n=105
- Preteens were grouped into 51 who attended a screen free nature camp and 54 that did not and had regular access to screens
Both groups took pre- and post-tests regarding nonverbal emotional cues.
- The experimental group's recognition of cues improved significantly over the control after 5 days in a nature camp without screen access
- Time away from screen media, with increased social interaction, may improve comprehension of nonverbal emotional cues.

Yeh, YI, Michikyan, M., Morris, J., Garcia, D., Small, GW, Zgourou, E., Greenfield, PM (2014). Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues. Computers in Human Behavior. V 39, 387-392. <https://doi.org/10.1016/j.chb.2014.05.016>.



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Being Part of a Trend or Challenge on Social Media helps kids feel significant



- Kids seek a sense of belonging and significance
- Shocking Videos and Titles Get More Views
- Just accidentally being exposed and watching the trend increases the likelihood of exposure to other negative trends and the “normalizing” of the trends due to the algorithm



Fights in school are escalating across the country

- People beyond the school walls incite the expectation of a fight but are detached from the consequences
- Kids can't “back down” for fear of looking weak forever on social media - posts live forever
- Access to phones in lunch rooms can perpetuate the violence because as soon as it starts, kids start filming in an attempt to get a viral video and feel “significant” rather than focusing on the well-being of the person getting drawn into the fight.
- We rely on people forgetting to move forward. Videos and pictures get in the way of the normal process of forgetting and you can keep reliving the moment, affecting mental health long term



Algorithms don't have emotions

Populating feeds with upsetting/emotionally charged content

Likes and Comments boost visibility of posts, creating artificial value



Advertisers and Business Agendas get priority

Goal is engagement as a metric, not quality of post



Social/Emotional Impact

- **Lowered Self Worth/Resilience:** Loneliness and depression, Anxiety, Feelings of failure and inadequacy as children struggle with learning and academic success. The real world does not reward you as much as a video game does. It takes effort and persistence
- **Social Comparison** to others and chasing “significance” over contribution. How do you stand out in a world where different is normal?
- **Desensitization** to the impact of your words/actions on social media or in gaming chat rooms. There is no reset button in real life.
- **Unwanted influencers:** Potential negative outside influences teaching and engaging with children in gaming chats and on social media



People Have Human Needs

Certainty	• assurance you can avoid pain and gain pleasure, safety, security
Uncertainty/Variety	• the need for the unknown, change, new stimuli, adventure
Significance	• feeling unique, of value, important, special or needed, independence
Connection/Love	• a strong feeling of closeness or union with someone or something
Growth	• an expansion of capacity, capability or understanding
Contribution	• a sense of service and focus on helping, giving to and supporting others



Technology Taps into Lower Needs

Certainty	• assurance you can avoid pain and gain pleasure, safety, security
Uncertainty/Variety	• the need for the unknown, change, new stimuli, adventure
Significance	• feeling unique, of value, important, special or needed, independence



BUT meeting higher needs when you feel safe and connected to the world around you is what builds lasting happiness and success

Connection/Love	• a strong feeling of closeness or union with someone or something
Growth	• an expansion of capacity, capability or understanding
Contribution	• a sense of service and focus on helping, giving to and supporting others



Be Present. Technological interruptions are associated with child problem behaviors -

Children need your guidance and modeling to learn how to manage technology, navigate social interactions, read nonverbal cues, and learn to be creators, not consumers



Use empowerment language and prepare the environment

"Seems like you are down to 50% battery life, I think we need to recharge"

"Let's figure out what works best for you so you can learn this easier"
(Ex: text book vs ebook)

"We have been looking at this for a long time, let's take an eye break"



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Device Free Zones: Create White Space



We love technology
BUT
Family time
is a
PHONE FREE ZONE!



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Weekly Digital Detox: Reduce Stimulation. Foster Connections and Growth.



- Low stimulation, nature hikes/volunteering/outings, science projects, give jobs on outings, accomplish a goal as a family, device free playdates



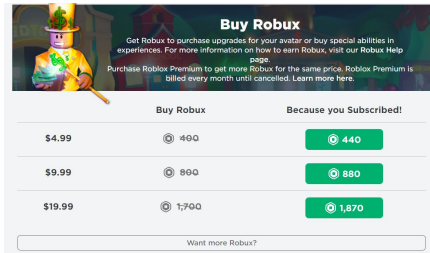
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Teach Responsible Social Media Use through Collaborative Posts and being mindful of Privacy



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Take some time to check out games on Roblox and play Fortnite



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Mind: Screens Impact Cognition, Attention, and Self Control



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"The fundamental difference between computers and the human mind is the basic organization of memory." Computers organize logically and linearly. The brain remembers based on cues (other information and memories). It can connect and reconnect information in unlimited ways. This is how we get inventions/innovation.



Sensory Integration is the Foundation of Development



The way the brain takes in and organizes information from the environment and from our bodies to adapt and respond to everything we experience throughout the day

Research on Smart Phone Use

- Phone conscious thought significantly predicted memory accuracy. [1]
- The presence of a smartphone and high phone conscious thought affects one's memory learning and recall, indicating the negative effect of a smartphone proximity to our learning and memory. [2,3]
- "A 3-second distraction (e.g. reaching for a cell phone) is adequate to disrupt attention while performing a cognitive task. This distraction is disadvantageous to subsequent cognitive tasks, creating more errors as the distraction period increases, and this is particularly evident in classroom settings" [4]

1. Tanti, C. T., & Yong, M. H. (2020). Mobile phones: The effect of its presence on learning and memory. *PLoS one*, 15(8), e0219233. <https://doi.org/10.1371/journal.pone.0219233>

2. Thornton R, Fairer A, Robbins M, Rollins E. The mere presence of a cell phone may be distracting: Implications for attention and task performance. *Soc Psychol*. 2014;45(6):479-88.

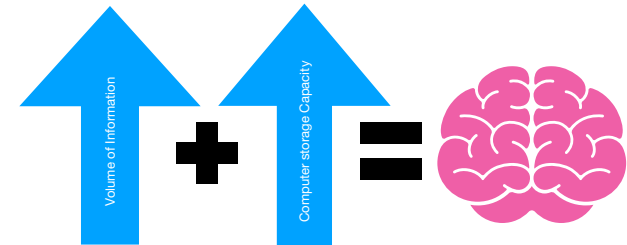
3. Ito M, Kanishiro Y. Effect of the presence of a mobile phone during a spatial-visual search. *Per Psychol*. 2017; April 15;59(2):188-96. <https://doi.org/10.1037/per0000086>

4. Altmann EM, Tractinsky JG, Hambrick DZ. Momentary interruptions can derail the train of thought. *J Exp Psychol Gen*. 2014; February 143(1):215-26. 10.1037/xap0000086 [PubMed] [CrossRef] [Google Scholar]

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Digital Dementia: We just can't retain it all



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Screen time disrupts learning

Adolescent Brain Cognitive Development (ABCDstudy.org) - 2018 findings

11,874 youth, ages 9-10, participating in the study, including 2,100 young people who are twins or triplets. All will be followed through young adulthood.

Year One Findings:

MRI's found significant differences in the brains of some kids who use smartphones, tablets, and video games MORE THAN 7 HOURS PER DAY.

Premature thinning of the cortex. That's the wrinkly outermost layer of the brain that processes information from the five senses.

Kids who spend MORE THAN TWO HOURS PER DAY on screens got lower scores on thinking and language tests.



<https://www.chron.com/news/groundbreaking-study-examines-effects-of-screen-time-on-kids-62-mins-105/>

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Screen time impacts test scores

Premature thinning of the cortex. That's the wrinkly outermost layer of the brain that processes information from the five senses. - The connections between the senses that help with learning and making sense of the world are pruning off.

Kids who spend MORE THAN TWO HOURS PER DAY on screens got lower scores on thinking and language tests.



<https://www.chron.com/news/groundbreaking-study-examines-effects-of-screen-time-on-kids-62-mins-105/>

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Channel Capacity

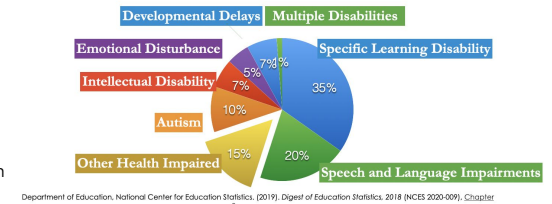


Miller, G.A. (1956). "The magical number seven, plus or minus two: Some limits on our capacity for processing information". *Psychological Review*. 63 (2): 81-97.

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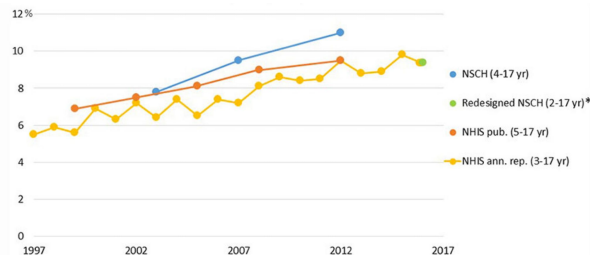
Fast Facts from the DOE

- The number of children receiving special education is up from 11.6% in 2010 to 15.9% in CT in 2022
- 15% of kids receiving special education under Other Health Impaired compared to only 12% for Autism



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CDC Data Surveys: Parent Report of ADHD Diagnosis



<https://www.cdc.gov/ncbddd/adhd/timeline.html>

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Sensory
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VS



Focus and Filtering to accomplish goals

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Body: Health, Development, Adaptability



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Physiological Changes from Screen Use Affect How Kids Feel and How They Sleep



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Blue Light



Pros	Cons
Helps regulate circadian rhythm	Passes through the lens and cornea more easily than UV rays, causing damage over time
Boosts energy and mood	Blue light is scattered and harder to focus on, contributing to digital eye strain
Boosts alertness and cognitive function	If exposure is high at night, can disrupt the circadian rhythm and block melatonin production

Retrieved from: www.allaboutvision.com

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Sleep Disruptions

- Disrupt the process of mental recovery and consolidation of information from the day
- Reduces attention, slows down thinking and reaction time
- Can cause Feedback blunting - impairing responsively to experiences, hindering cognitive flexibility and adaptability
- Affects how emotional information is understood

<https://www.sleepfoundation.org/sleep-deprivation/lack-of-sleep-and-cognitive-impairment>



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Impact of Technology and Blue Light on Vision

Nearsightedness

Retinal Damage



Poor functional vision

Dry Eyes

Computer Vision Syndrome

Affected an average of 19.7% of kids in 2015



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Postural deficits leave kids uncomfortable and irritable



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Postural Deficits and Tech Neck

- In a study of 207 children and adolescents, 180 with non-specific neck pain reported flawed extension in their neck and back while studying and using smartphones and tablets. (Fares, Fares, & Fares, 2017)
- 21% also had eye symptoms
- 82% reported a change in psychological and social behavior



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Rebalancing Movement and Screen Time

To understand the Solutions, you need to understand how the body and the brain work so kids can live successfully in a digital world. Not just "Limit Screen Time"

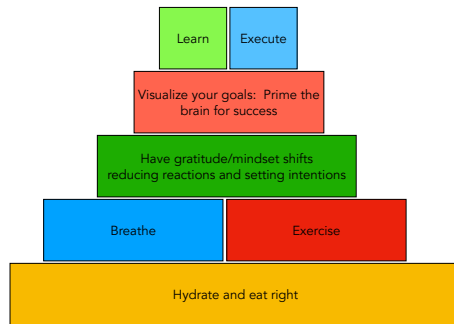


Stamford's Mission: To Cultivate habits of the mind, body, and heart to enrich the lives of children and the world in which they live.



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Formula for Success



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Improve the Mind and Body Exercise, BDNF, and Cortisol

- Yoga and Breathing reduce stress and cortisol levels (Perciavalle, et. al, 2016), which is responsible for facilitating the process of cell death, reduction in dendrites available for synapses and shrinkage in the limbic system
- Cardiovascular exercise increases the production of Brain Derived Neurotropic Hormone, which stimulates neurogenesis (Best, 2010)
- Cognitively engaging exercise has a stronger effect on executive functions of adaptability and goal-directed behavior (Best, 2010)

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Exercise, BDNF, and Cortisol



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Energizing Activities: Speed, Unpredictability, Movement



Dizzy Disk - [amazon.com](https://www.amazon.com)



Inflatable Dudes Dinosaur - [amazon.com](https://www.amazon.com)



Yogiibo Hugibo - [amazon.com](https://www.amazon.com)






Restoring Activities







Goal: Restore children to an optimal level of arousal











Regrouping Activities: Vision Breaks, Stretching and Breathing









Teacher Initiative: Swap Wiggle Breaks for Mindful Movement












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Visualization instead of Visual Stimulation

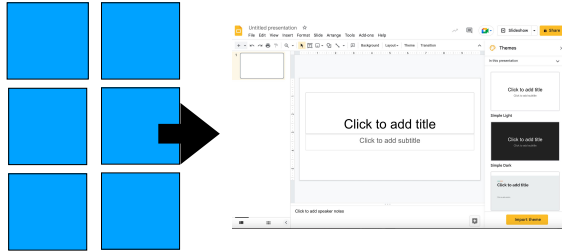
- Visualize before beginning a task - Have children see themselves **DOING** and **DOING IT WELL** not just repeat back what to do.
- Draw pictures about stories/chapters read to help internalize and consolidate the most important information
- See **SIGHT WORDS** in your head - use tactile materials like wooden letters and letter beads or shaving cream drawing to enhance memory for recall
- Eye cupping to Visualize stories and create the "movie in my mind" to help internalize and consolidate the most important information





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Combine Multi-sensory strategies with Technology



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Home Planning Tool

<https://www.healthychildren.org/English/media/Pages/default.aspx>

Family Media Plan

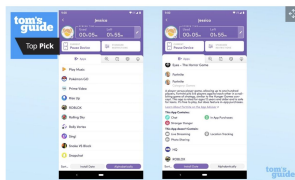
Screen Time Calculator

American Academy of Pediatrics



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Explore Parental Control Apps as needed



1. Net Nanny ★★★★★

The best parental control app out there

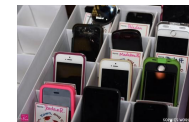
<https://www.tomsguide.com/us/best-parental-control-apps,review-2258.html>



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Host Digital Detox Events: Let's Unplug

- Device free dance parties
- Back to nature events
- "Disconnect Day"
- Real Life "Gaming" - Field Days



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Parent Action Steps

- **Be Present.** Technological interruptions are associated with child problem behaviors - Children need your guidance and modeling to learn how to manage technology to be creators, not consumers
- Learn about what your child is doing online and model positive contributions
- Make a Family Home Plan for Media and Screen Time
- Create White Space - Set up screen free zones and times in your home
- Move with a purpose! - Engage in sports, backyard games, and indoor obstacle course
- Make plans for Weekly Digital Detox - Low stimulation, nature hikes/projects/outings, quiet spaces, yoga/meditation, little to no screens and technology, accomplish a goal as a family



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Connecting with Parents via Remind



- Sharing Classroom Successes
- UnPlugged homework and family time
- Tech free learning times
- Digitally Mindful Movement Breaks



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Teacher Education

- Reduce Screen use for wiggle breaks: Up-level Brain Breaks with Body Activated Learning to prime the senses for learning through proactive and purposeful movement.
- Use vision breaks paired with visualization daily for regulation and goal-directed behavior
- Plan for tech free learning times
- Provide alternative activities to screens in down time, indoor recess, and quiet lunch activities.



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Creating a Screen Time Balance allows a child to...

- Engage in activities to self-regulate emotions and arousal
- Establish motor skills, social skills, and play skills
- Interact with and explore the environment to learn independently
- Engage in age-appropriate activities and develop independence in daily routines and learning tasks



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START SMALL,
THINK BIG,
AND AIM
SOMEWHERE
IN BETWEEN.

Bill Rancic



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*How Can You Take
Action in Your At Home ?*



English Version TEXT: Spanish Version TEXT:

**Tips to Help Kids
Succeed in a Digital
World**

Expert advice designed to help you
identify a child's digital profile
and practical ideas to help
children succeed!

By Aubrey Schmalle, OTR/L

**ENGLISH AND
SPANISH VERSIONS**

**FREE Digital Download
on Tips to Help Kids
Succeed in a Digital
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*Let's Keep the
conversation going!*

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