



# AT for People with Sensory Disabilities

Presented by Danny Housley  
2016 GATE Seminar

# About your Presenter

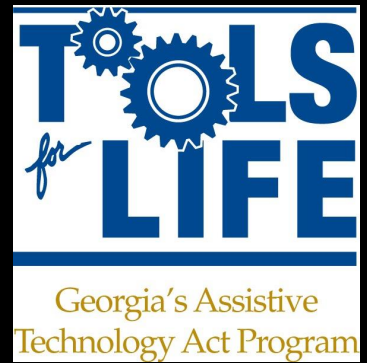
- AT Funding and Resource Specialist, Tools for Life
- Lifelong AT User
- Low vision items from K-now
- Prior experience at a Center for Independent Living
- Lifelong advocate



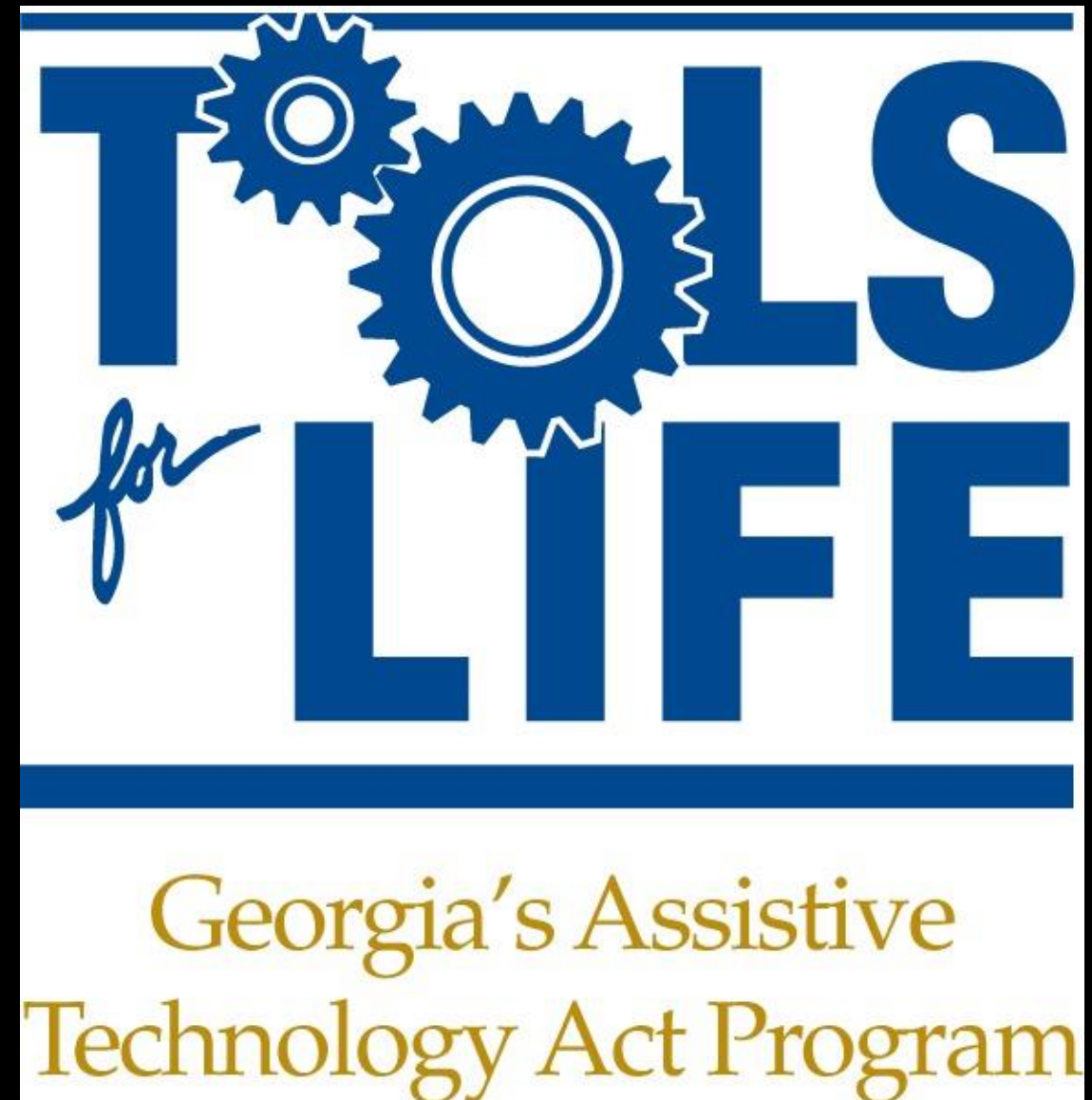




# About Us



Tools for Life is Georgia's Assistive Technology Act Program and is dedicated to increasing access to and acquisition of assistive technology (AT) devices and services for Georgians of all ages and disabilities so they can live, learn, work and play independently and with greater freedom in communities of their choice.



# About Tools for Life

- AT Act Program for state of Georgia
- Serve all ages and all disability types
- Live, learn, work and play
- Increase access to and acquisition of AT
- Loan closet
- [www.gatfl.org](http://www.gatfl.org)





**disABILITY  
LINK**  
*the center for rights & resources*



**Disability  
Resource  
Center**



**MULTIPLEchoices**  
Center for Independent Living



Georgia's Assistive  
Technology Act Program



**C4ATX**  
Center4AT Excellence



*The Middle Georgia Center for Independent Living, Inc.*



**BAIN, INC.**  
Center For Independent Living

What AT is the *right*  
AT?

# What is Assistive Technology?

## Low Tech

- Pencil grip
- Adapted books
- Slant board
- Highlighters
- Fidget toys
- Magnifiers
- Color coding
- Colored transparencies

## Mid Tech

- Word prediction
- Text-to-speech
- Speech-to-text
- Spell checkers
- Adapted mouse
- E-books
- CCTV
- Adapted toys
- Apps < \$100

## High Tech

- Computer
- Tablets
- Smartphones
- Smartpens
- OCR device
- Magnification software
- Switch access
- Apps > \$100

**What is a Sensory  
Disability?**



# Snoezelen Rooms

- 1970s, Netherlands
- Very common in Germany
- Seeing more in the US
- Soothing
- Stimulate as many senses as possible
- Person is generally accompanied (“enabling practitioner”)
- Non-directive therapy



# Sensory Assessments

- Take time
- Many different methods
- All about experimentation
- Focus on one sense at a time





# Further Resources

- National Autism Standards- UK

<http://www.aettraininghubs.org.uk/wp-content/uploads/2012/05/37.2-Sensory-assessment-checklist.pdf>

- Sensory Processing Disorder Checklist- Winnie Dunn, Ph.D, OTR, FAOTA

<http://www.spdparentzone.org/wp-content/uploads/2014/03/Sensory-Checklist.pdf>

# Every Move Counts Click and Chats

Jane Edgar Korsten,  
MS/SLP

Terry Vernon Foss, M. Ed.  
Lisa Mayer Berry, MOTR/L

*every move counts  
clicks and chats*

*emc<sup>3</sup>*

**Sensory-Based Approach:  
Communication and Assistive  
Technology**



Jane Edgar Korsten, MS/SLP  
Terry Vernon Foss, M. Ed.  
Lisa Mayer Berry, MOTR/L

# Sensory Assessment

name: \_\_\_\_\_ date: \_\_\_\_\_ examiner(s): \_\_\_\_\_



Provide 3 tastes of one gustatory item when this symbol appears.  
Enter scores on #7.

1. vestibular - Provide movement for the time indicated for the activity and then pause for 5 seconds. Record response.

Note: Discontinue if blanching, gagging or seizure activity is observed.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	response levels			response description
	trial	0	1	2
side to side (10 seconds)	1			
	2			
	3			
front to back (10 seconds)	1			
	2			
	3			
rotary (5 seconds)	1			
	2			
	3			
up and down (5 seconds)	1			
	2			
	3			

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%



2. proprioceptive - Provide stimulus for 10 seconds and then pause for 5 seconds. Record response.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	response levels			response description
	trial	0	1	2
	1			
	2			
	3			
	1			
	2			
	3			

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%





3. tactile - Provide stimulus for 10 seconds and then pause for 5 seconds.

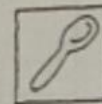
Record response.

Note: Do not apply stimulus to skin with a bruise, wound or rash.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	trial	response levels			response description
		0	1	2	
	1				
	2				
	3				
	1				
	2				
	3				

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%



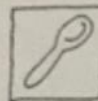
4. visual - Move stimulus through central visual field and all four quadrants (2-3 seconds per quadrant) and then withdraw from sight for 5 seconds. Record response and describe any differences across visual field quadrants under the corresponding column.

Note: It is important that sound not accompany the visual presentation. Do not use strobe or flashing lights. In the presence of CVI, select items with '\*' from the protocol. Present slowly and with movement. Allow 10 second response time.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	trial	response levels			quadrants					response description
		0	1	2	UL	UR	LL	LR	C	
	1									
	2									
	3									
	1									
	2									
	3									

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%



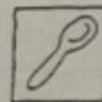
5. auditory - During each trial, present sound at midline, behind and slightly above the head. Allow 10 seconds for music and 3 seconds for noise makers. Pause for 5 seconds. Record response.

Note: It is important that movement within the visual field not accompany the sound.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	response levels			response description
	trial	0	1	2
	1			
	2			
	3			
	1			
	2			
	3			

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%



6. olfactory - To differentiate between reflexive and purposeful responses, pass an unscented item under the nose for 3 seconds. If response to scented and unscented items is the same, the response is most likely reflexive (level 1). Score response made within 3 seconds of presentation or removal while allowing 20 seconds between presentations. Record response.

Note: Consider allergies and fragrance sensitivity.

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	response levels			response description
	trial	0	1	2
familiar	1			
	2			
	3			
novel	1			
	2			
	3			

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%





7. gustatory - Provide taste of food. Score response made within 5 seconds and then allow additional time necessary for food to be consumed. Record response.

Note: Gustatory should not be administered if individual is NPO (nothing by mouth). Consider suckers for individuals who can taste but do not have the oral motor control needed to eat. Allow self-feeders to set own interval. Do not force consumption of food that is rejected. (Score rejection as a '-' in the 2 column.)

position: \_\_\_\_\_ pre-task condition: \_\_\_\_\_

stimulus	trial	response levels			response description
		0	1	2	
sweet	1				
	2				
	3				
sour	1				
	2				
	3				
salty	1				
	2				
	3				
bitter	1				
	2				
	3				
pungent	1				
	2				
	3				
astringent	1				
	2				
	3				

score: \_\_\_\_\_ of \_\_\_\_\_ = \_\_\_\_\_%



# Visual Disabilities



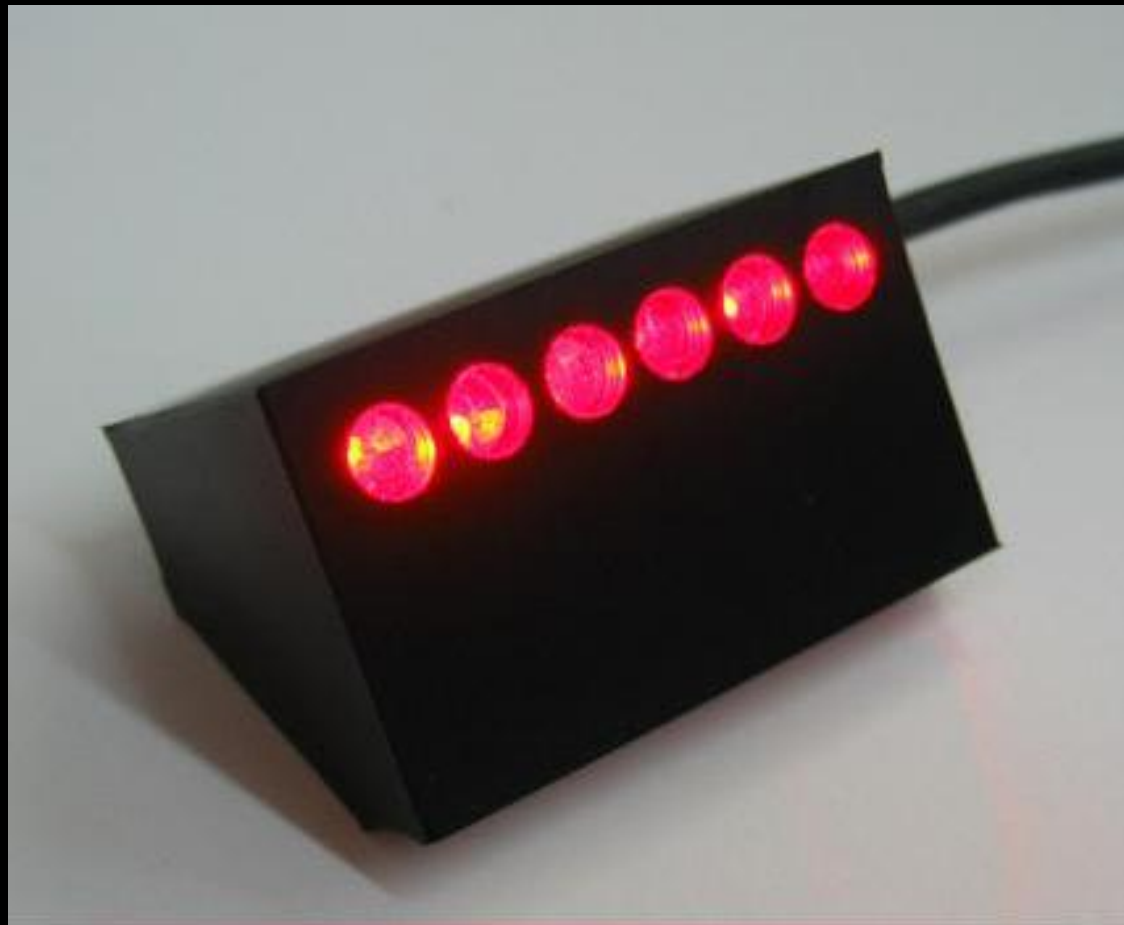


**LIGHT DARK**

# Hearing Disabilities







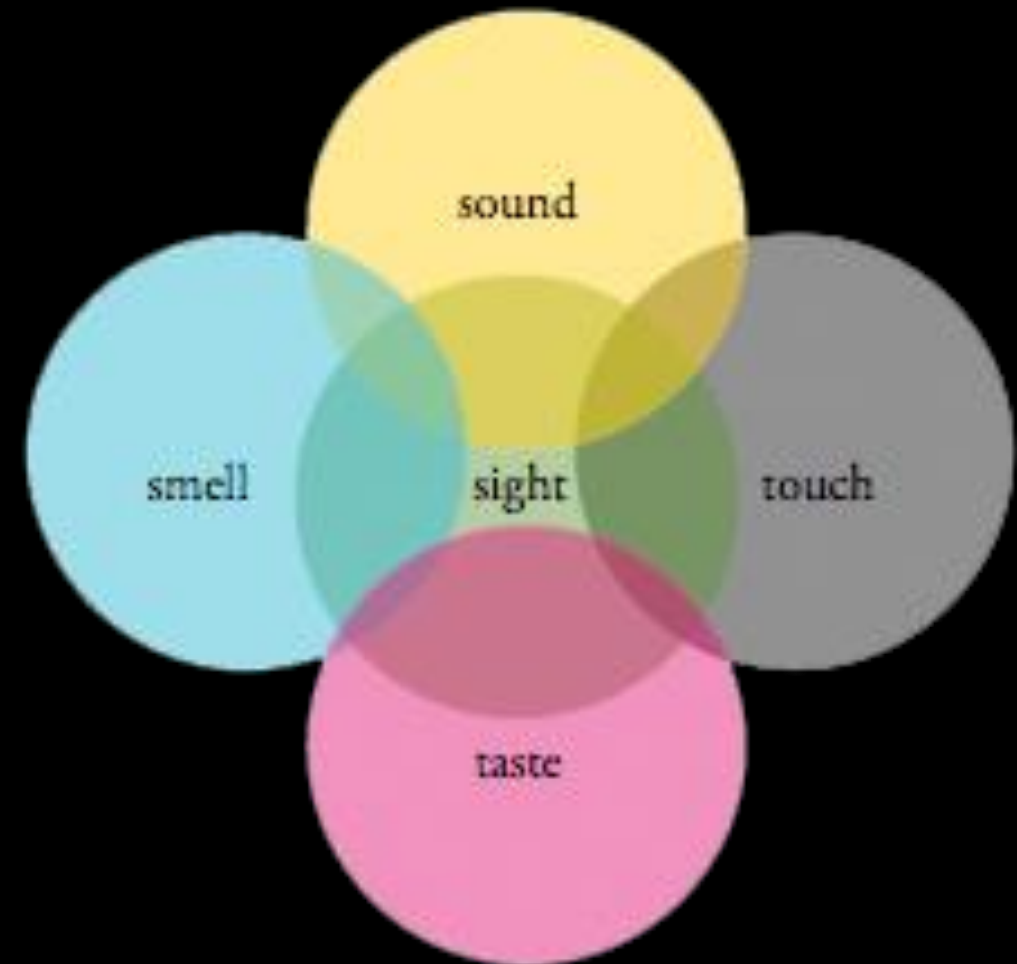
# Deaf-Blind







# Stimulating the Senses















# Apps for the Senses



# White Noise

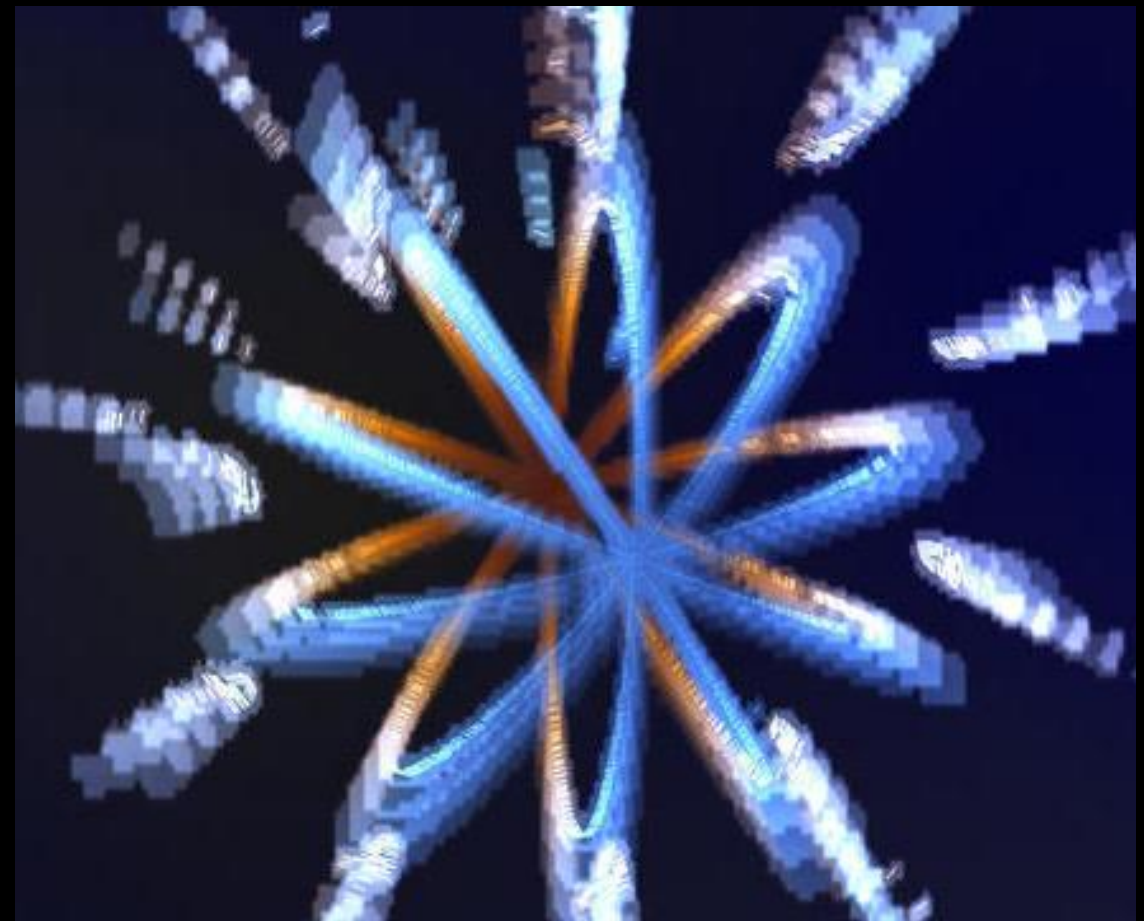
- Free
- Nature sounds, fan, traffic, variety of options
- Can use your music library
- Timed





# Midnight HD

- .99 cents
- Particle simulator
- iPad
- Can use up to ten fingers to create shapes, alter particle flow, etc



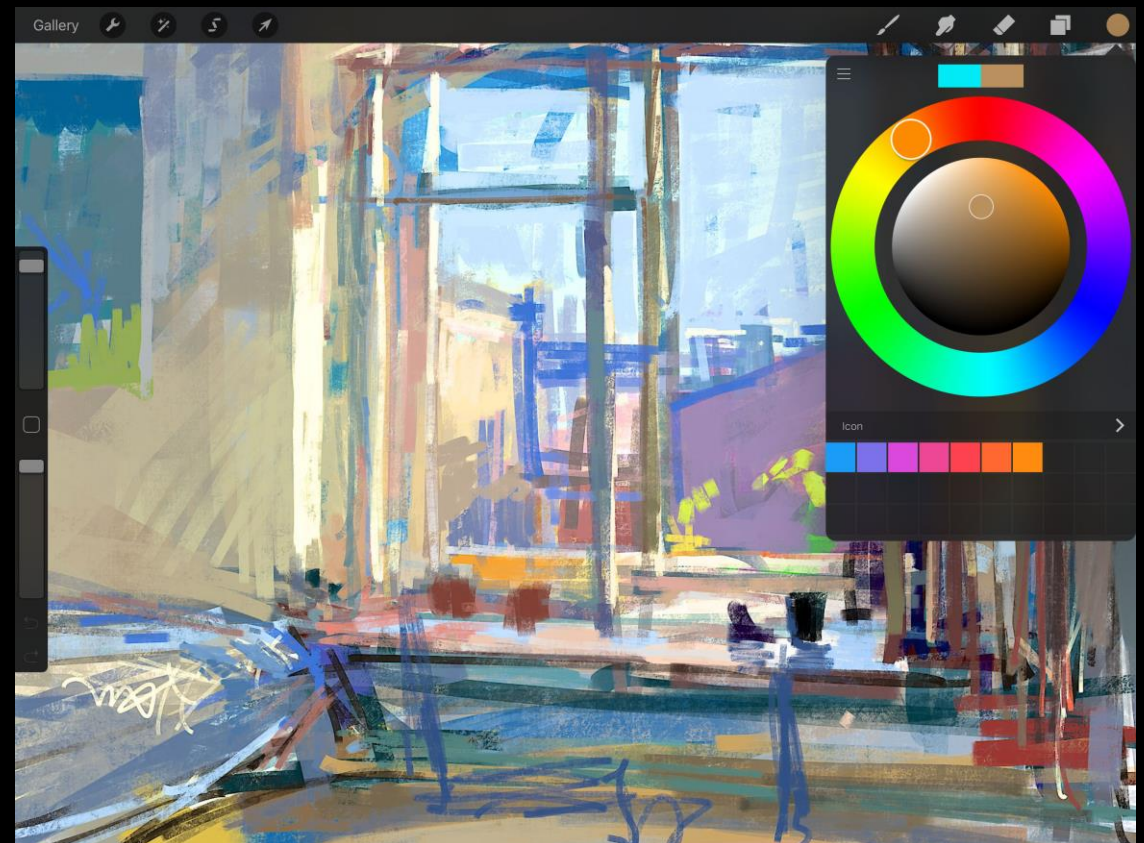
# Audiogasm

- Free
- Sound visualizer
- Customizable
- Takes



# Procreate

- \$5.99
- Drawing/painting app
- Fingers/stylus/apple pencil
- Art without the mess/sensory overload





Questions?  
Comments?  
Small Jokes?

# TOOLS *for* LIFE

Georgia's Assistive Technology Act Program



thank  
you



# The Tools for Life Team



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Disclaimer: Produced by Tools for Life (TFL), which is a result of the Assistive Technology Act of 1998, as amended in 2004. TFL is a program of the Georgia Institute of Technology, College of Design, AMAC Accessibility Solutions and Research Center and was made possible by Grant Number H224C030009 from the Administration for Community Living. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HHS.