



# **Tips for a Successful Educational Environment for Students with Learning Disabilities**

Martha Rust  
*Tools for Life*  
[www.gatfl.org](http://www.gatfl.org)

[www.amacusg.org](http://www.amacusg.org)

# Agenda

- Tools for Life Overview
- Looking at Student led IEPs
- Ergonomics in the Classroom
- Apps for the Classroom

# AMAC

AMAC Accessibility is a social change organization on a mission to create affordable services for governmental, private and non-profits organization working with individuals with disabilities. Services include e-text, braille, captioning, assistive technology, office management software and consulting.





# Accessibility Made Smart

AMAC creates practical solutions that work, with a focus on utility, ease of use, and high quality.

- **Accessibility Consulting** focuses on organizational accessibility needs with evaluation, technical assistance, customer support, and website accessibility solutions.
- **Braille Services** produces customized projects from both print materials and electronic text including partial books and chapters or graphics only using cutting-edge technology.
- **Captioning Services** makes classrooms, meetings, labs and other audio environments fully accessible for deaf or hard-of-hearing.
- **Professional E-Text Producers** provide high-quality e-text in many formats such as PDF, DOC, DAISY, and HTML.
- **Certified Assistive Technology team** provides on-site and remote assessments, demonstrations, training and technical assistance for education, work, and daily living environments.

For more information, please visit our website at [www.amacusg.org](http://www.amacusg.org)

# Tools for Life Mission

We're here to help Georgians with disabilities gain access to and acquisition of assistive technology devices and assistive technology services so they can live, learn, work, and play independently in the communities of their choice.



# **Tools for Life**

## **Georgia's Federal AT Act Program**

- TFL developed Georgia's Plan for AT
- We serve individuals of all ages & all disabilities in Georgia
  - Over 50,000 thru various activities throughout the year
- TFL Network
  - Assistive Technology Resource Centers
  - Lending Libraries
  - Training and Demonstrations
  - AT Reuse
  - AT Funding Education/Assistance and Resources
- Online Resources
  - [www.gatfl.org](http://www.gatfl.org) - 12,000 unique visitors a month

# Iowa Program for Assistive Technology

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Loan Program](#)

The Iowa Program for Assistive Technology (IPAT) helps Iowans find out about and get the assistive technology (AT) they need as part of their daily lives to learn, work, play, and participate in community life safely and independently.

[Device Recycle and  
Reuse Services](#)[Device Demonstration  
Services](#)

IPAT serves Iowans of all ages with all types of disabilities, including persons who are aging.

[Device Short Term  
Loan Programs](#)

AT includes items that individuals use to assist them in daily activities, such as canes, wheelchairs, communication devices, hearing aids, keyboard alternatives, learning software and vision aids.

[Information and  
Assistance](#)

Go to our [Services](#) page to learn more about what IPAT has to offer or see the links to the left.

[Protection and  
Advocacy for Assistive  
Technology \(PAAT\)](#)

The Iowa Program for Assistive Technology is funded under the Assistive Technology Act of 1998, as amended by the U.S. Department of Education, Rehabilitation Services Administration. IPAT, the statewide assistive technology program for Iowans, is a program of Iowa's University Center for Excellence on Disabilities.





Iowa Program for Assistive Technology  
Center for Disabilities and Development

100 Hawkins Drive

Iowa City, Iowa 52242-1011

Phone: 800-779-2001

Email: [IPAT@uiowa.edu](mailto:IPAT@uiowa.edu)





# Student led IEP

- It was a collaboration between Middle GA Georgia Learning Resources Systems and CREATE/GA Tools for Life.
- MG-GLRS was involved in a state DOE grant program aimed at self-determination and advocacy
  - ASPIRE
- Linda Curry, the director, came up with the idea of giving kids iPads to see what they would do with them.
  - Crawford Co.



# **Student Lead IEP Research**

- In Georgia
- All sophomore
  - 12 started the program
  - 11 finished
- ASPIRE Training
- ½ with iPads
- ½ without iPads



# **ASPIRE:**

## **Active Student Participation Inspires Real Engagement**

- ASPIRE is a curriculum that seeks to foster active student participation in their IEP meeting, by providing the student with skills to direct and lead their meeting (Lynch, Crain & Moore, 2012).
- ASPIRE was adapted from the “I’m Determined Project” of the Commonwealth of Virginia Department of Education Training and Technical Assistance Centers. This approach was embraced and piloted by the Georgia Department of Education (GADOE).
- GADOE had selected 14 districts for a broader implementation of the principles of ASPIRE under the Partnership for Success program.

# Conclusions

- The presence of the iPad platform likely made a difference in two respects:
  - Setting the students apart as special in a positive way and providing them a sense of responsibility and purpose in this project.
  - Laying a foundation on which confidence was built as they developed a presentation that contained their ideas on this platform.



# Conclusions



- The ASPIRE training provided students in both groups with the background understanding for participation in their meeting. Each student demonstrated that they understood the key questions to address in their meeting.

# Conclusions

- The technical assistance sessions in preparation for their meeting provided students with the opportunity and support to craft their personal responses to the key questions. This step forced them to address these questions.



# Conclusions



- The centrality of the student's own ideas at the meeting, presented in multimedia form, together with the acceptance from staff and parents, provided a further encouragement to students to be assertive and provide leadership at their meeting.

# Ergonomics in the School Environment

Promoting full inclusion in educational environments often includes knocking down simple physical barriers by building up everyone's skills and knowledge of the principles of ergonomics and understanding of assistive technology solutions. This presentation will identify ergonomic challenges present in the classroom environment and will provide solutions that can assist with improving posture and enhance the student's ability to focus on learning and promote inclusion.



# What is Ergonomics

- Greek word: Laws of Work
- Science that studies work in various environments, and the tools used to perform tasks in those environments
- Goal: match the capabilities and “limitations” of the human body



# Ergonomics in the Classroom

## Areas to Evaluate

- Chair
- Monitor
- Desk
- Keyboard & mouse



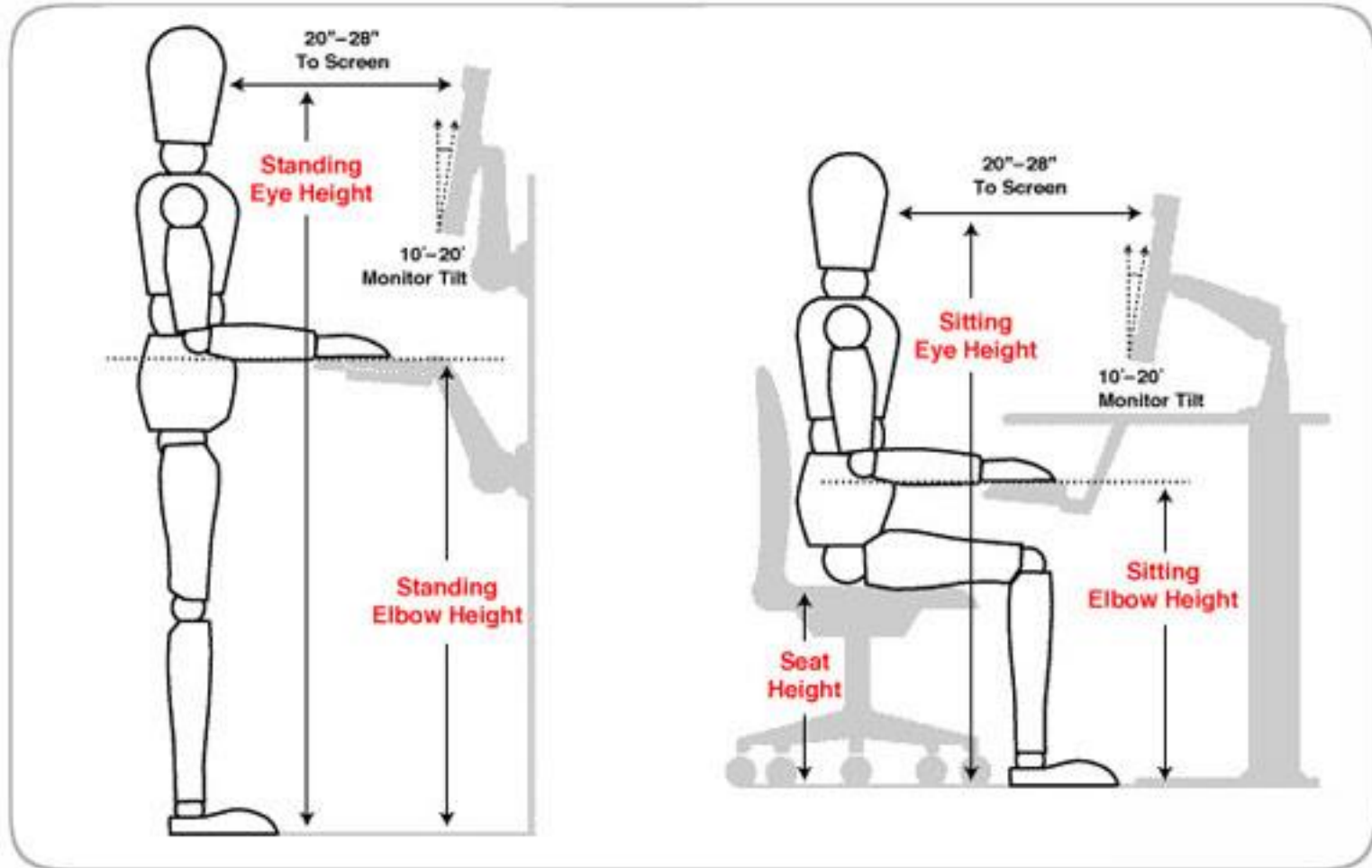
*Carolyn Phillips- TFL*

# Poor Sitting Posture

- Inhibits blood flow
- Creates muscle shortening
- Stresses back muscles and compresses spine
- Can inhibit learning
- Compresses diaphragm
  - Affects breathing
  - Voice quality



# Ergonomics in the Classroom



# Ergonomics in the Classroom

## Stand Up For Your Health

### Physiologists And Microbiologists Find Link Between Sitting And Poor Health

*June 1, 2008* — Physiologists analyzing obesity, heart disease, and diabetes found that the act of sitting shuts down the circulation of a fat-absorbing enzyme called lipase. They found that standing up engages muscles and promotes the distribution of lipase, which prompts the body to process fat and cholesterol, independent of the amount of time spent exercising. They also found that standing up uses blood glucose and may discourage the development of diabetes.



# Chairs

- Proper height for desk or height adjustable if possible
  - boost height in a non-adjustable chair
- Thighs should not be in contact with the front edge of the seat
  - 2" to 3" between front edge of chair and back of knees
  - Use firm pillows or cushions to reduce seat depth
- Adjust the chair so feet are flat on the floor and thighs parallel to the floor
  - use foot rest or seat cushions to achieve proper posture
- If child is wheelchair user feet should make good contact with footplates

# Low cost solutions

- Portable back and seat cushions
- Small pillow or rolled up towel to support low back
- Booster seats, pillows or phonebooks, boxes



*Carolyn Phillips-TFL*

*Pictured used with permission*



Unsupported feet



Low cost solution

# Options



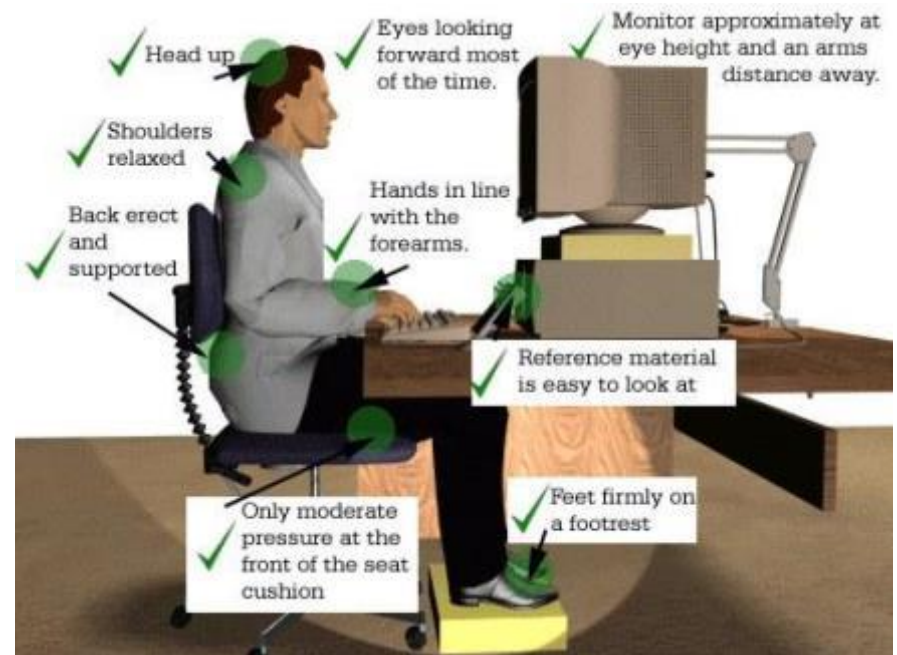
\$125



\$116

# Monitor

- Centered on desk
- The top of monitor should be at eye level allowing text on screen to be at or slightly below eye level
- Positioned arms lengths away unless visual acuity issues
- Use document holders
- Minimize glare



# **Position for Learning: Students with Attention Issues**



*Liz Persaud- TFL*



# **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.

# 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)



# Other options



**Move Small Ergonomic  
Stool for Children**



**Seating Disc**



**Stay n place ball**

# Fidget Footrests

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



# Tilt Desks

- Positioning the work closer the student can improve visual access
- Promote upright trunk posture
- Improve head posture



# Tilt Desks



**TherAdapt Extended Easels; \$288**



**Study Pal; \$42**

# Ergonomics in the Classroom

## Writing Solutions:



- “The Penagain takes a novel [ergonomic](http://ergonomics.about.com/od/buyingguide/fr/frpenagain.htm) approach to ink pen design. The body of the pen is shaped like a "Y" creating a cradle for the index finger to rest in.”

<http://ergonomics.about.com/od/buyingguide/fr/frpenagain.htm>



- Wide barrel pens can make it easier for some people to write due to their contoured shape. With a Fat Ergonomic Pen there's more surface area to grip which makes it easier to write.



# Ergonomics in the Classroom

## Writing Solutions:

- “[Stabilo’s](https://www.thewritingpenstore.com/c-307-easyergo-s-move-easy.aspx) goal is to make writing and drawing easier, so they work closely with ergonomic and fine motor specialists to achieve the optimum ergonomics results. Their products low weight and ergonomic shape, the hand muscles do not tire too quickly, as only a light pressure is required, eliminating the pain of hand cramps. Their pen and pencils even encourage good posture, which can improve academic performance in children and students.” <https://www.thewritingpenstore.com/c-307-easyergo-s-move-easy.aspx>



- The Free Ride's vibrant and sleek metal frame is perfectly balanced with the neutral hand placement grips. <https://www.thewritingpenstore.com/c-295-free-ride-ergonomic-pens.aspx>



# **Apps for the Classroom**

# TFL AppFinder

Search by:

✓ App Name

✓ Categories

- Book
- Education
- Environmental Adaptations
- Hearing
- Cognition, Learning, Developmental
- Navigation
- Personal Care and Safety
- Productivity
- Communication
- Therapeutic Aids
- Vision





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### Welcome to Tools for Life

Tools for Life, Georgia's Assistive Technology Act Program, 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.

Tools for Life and the TFL Network work collaboratively together to accomplish our mission through:

- [AT Demonstration](#)
- [AT Evaluations and Assessments](#)
- [AT Funding Options & Education](#)
- [Access to the TFL AT Lending Libraries](#)
- [AT & Durable Medical Equipment Reuse](#)
- [AT Training \(Individual\)](#)
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### 2013 IDEAS CONFERENCE

2013 Institute Designed for  
Educating All Students Conference  
June 3 - 6, 2013  
Epworth by the Sea, St Simons Island

- [Submit a Proposal](#)
- [Conference Website](#)
- [Exhibitor Details](#)

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[Free for All! Resources for  
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APR  
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[Assistive Technology and  
Adapted Recreation: A  
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### APP FINDER



... Living, Learning, Working, and Playing.

### AT ONLINE EXCHANGE



**gTRADE** [gTRADE, Georgia's Online  
Equipment Exchange](#)

encourages members to offer AT and DME for sale or donation to others who may benefit from using technology unneeded by others.

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Zimbra: Inbox

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Welcome to the Tools for Life Database - Our Favorite Apps for Living, Learning, Working and Playing!

Search By:

Name:

OR

Category: 

Please select...

Price: ☒ Free ☐ Up to \$4.99 ☐ Up to \$9.99 ☐ All

Device Type: ☒ All ☐ Android ☐ iOS ☐ Microsoft

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AT ONLINE EXCHANGE

 aTRADE eTRADE Georgia's Online

10:10 PM



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## My Favorite Apps

You searched for: Learning, Cognition, and Developmental






### tango Video Calls

Tango brings you free, high-quality mobile voice and video calls over 3G and Wi-Fi! Millions of people around the world are using Tango in an exciting new way. It

Learning, Cognition, and Developmental iOS

No Ratings

app icon

### i-prompt

Professional Tele-prompting software for your iPhone or iPod Touch.

Learning, Cognition, and Developmental iOS

No Ratings



### Dragon

Dragon Dictation is an easy-to-use voice recognition application powered by Dragon

Learning, Cognition, and Developmental iOS



5 stars by 1 users



### iBooks

iBooks includes the iBookstore, where you can download the latest best-selling books or your favorite classics

Learning, Cognition, and Developmental iOS

No Ratings



### Say Text

SayText reads out loud the text in the image. It is intended for the visually impaired users. SayText is a free spin off product from the DocScanner team.

Learning, Cognition, and Developmental iOS

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## AT ONLINE EXCHANGE

**gTRADE** [gTRADE - Georgia's Online Equipment Exchange](#)

encourages members to offer AT and DME for sale or donation to others who may benefit from using technology unneeded by others.



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## Best Apps for Teaching & Learning 2013

The apps recognized as Best Apps for Teaching & Learning are of exceptional value to inquiry-based teaching and learning as embodied in the AASL's *Standards for the 21st-Century Learner*. The apps foster the qualities of innovation, creativity, active participation, and collaboration and are user friendly to encourage a community of learners to explore and discover.

- [Books](#)
- [Science, Technology, Engineering, and Math \(STEM\)](#)
- [Organization & Management](#)
- [Social Sciences](#)
- [Content Creation](#)

American Association  
of School Librarians



### Books



#### Bats! Furry Fliers of the Night (available for iPad)

Bats! Furry Fliers of the Night layers clear text with interesting diagrams, beautiful photographs, and interactive features that enhance young readers' understanding of the subject. The design elements are top-notch, providing just the right amount of zing to keep kids engaged without distracting them from the essence of the material. A well-executed informative nonfiction app that anyone implementing the AASL learning standards and Common Core State Standards will find beneficial. This is what a book app should be, it takes you beyond the book with innovative technology related to the topic.

**Tip:** Springboard an inquiry unit using Bats! Furry Fliers of the Night as a motivation and tie in with a trip to the zoo.

# Apple Volume Purchasing Program

- Allows educational institutions to purchase iOS apps and books in volume and distribute them to students and teachers
- Apps at discounted rate if 20 or more copies are purchased
- <http://www.apple.com/education/ipad/volume-purchase-program/>
- Enrollment is simple



# SmartNotebook for iPad



- Works with SmartNotebook 11 software for Smartboards
- Dropbox and Google file Integration
- Asynchronous collaboration
- Insert photos and sounds

- \$6.99



# Bridgit

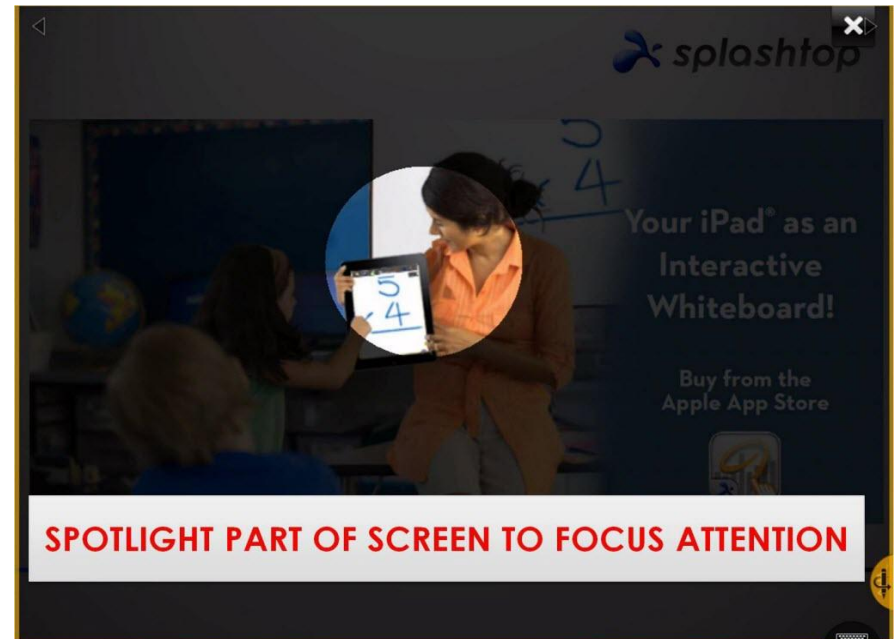


- Use with SMART Board interactive whiteboard
- Display to view content that is being presented and highlight or annotate over that content.
- Create or join a meeting on iPad
- Free

# Splashtop Whitboard



- Allows teachers and students to turn their iPad into an interactive white board
- Allows movement around the classroom
- Spotlight and Screen Shade tools for focus
- \$19.99



# iMovie



- Tell a story in movie form
- Import pictures
- Add music and sound effects
- Has themes to choose from
- Airplay to stream
- \$4.99



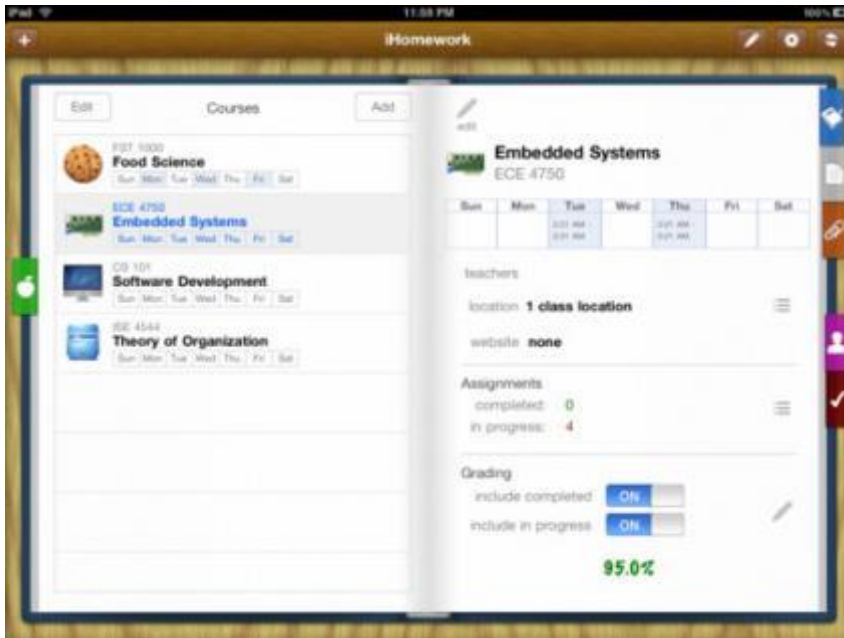
# SkyGrid



- Personalize news events by categories
- Simple interface
- Free
- [www.skygrid.com](http://www.skygrid.com)



# iHomework

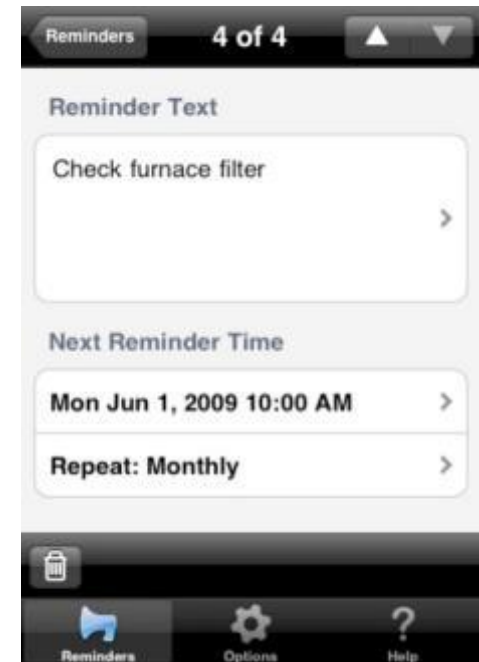
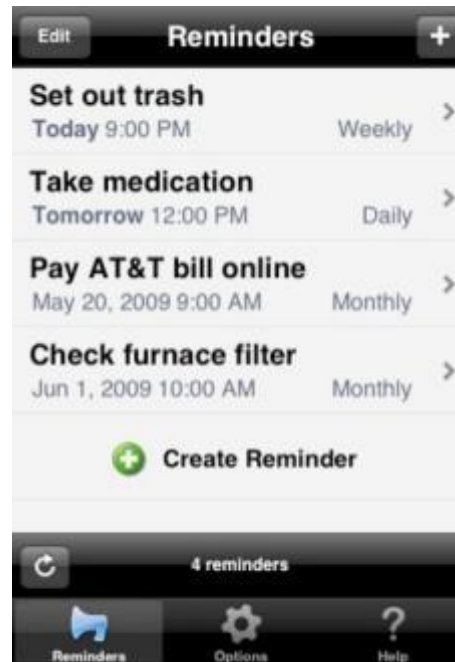


- Keep up-to-date with your school work, grades, to-do's, teacher's information
- School organizer that can be with you anywhere you go, whether that be on your iPhone/iPod touch, iPad, or Mac
- \$1.99

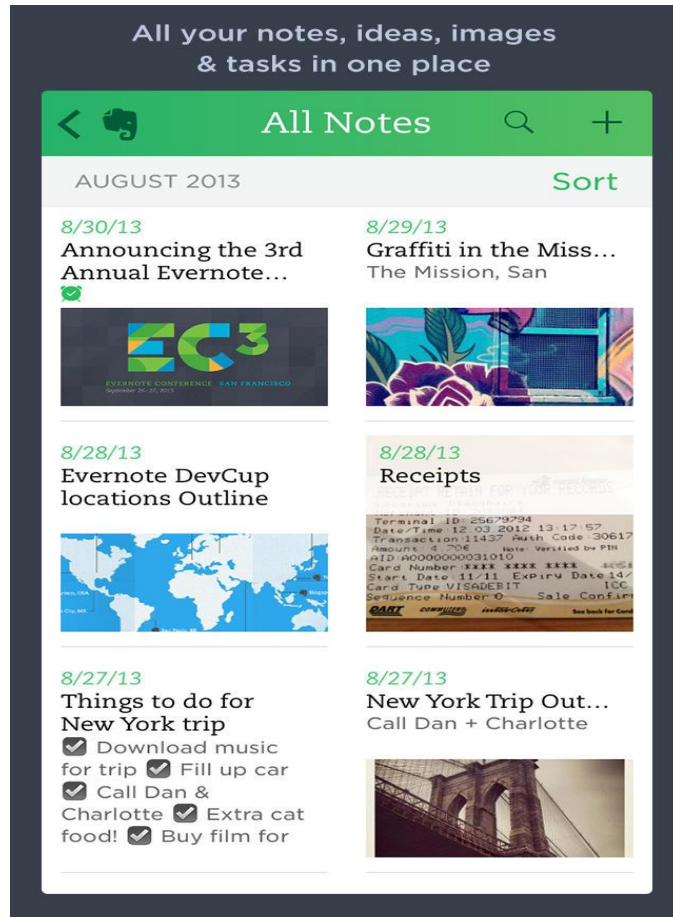
# TextMinder



- Create SMS text reminders
- Specify exact date and time; choose a repeat schedule for each reminder
- Multiple reminders can remain in popup notification summary, even when followed by other messages (push notifications only show your most recent alert)
- Unread reminders show as a number badge on your standard SMS/Messages app, and remain until removed to ensure they are noticed
- \$1.99



# Evernote

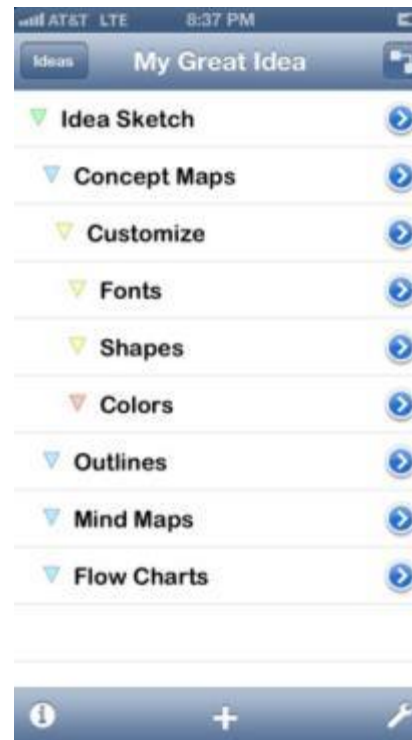


- Works across platforms
- Organize notes
- Create folders
- Import pictures
- Record Voice and Audio Notes
- Save Tweets
- Free

# Idea Sketch



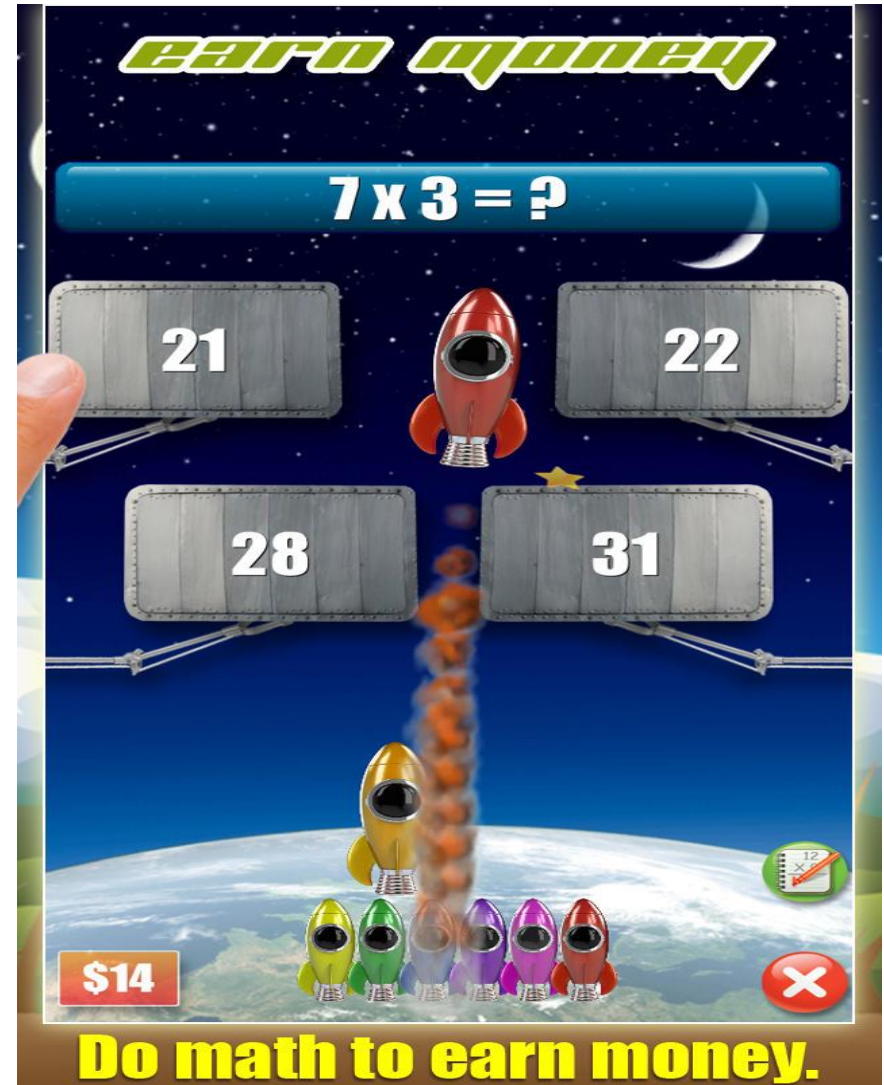
- Mind and concept mapping
- Create flow charts
- Brainstorm ideas
- Convert flowchart to text outline and vice versa
- Free



# Mathmeeter



- 56 different math missions.
- Each mission has touchable objects floating in space
- Missions range in difficulty from even/odd numbers all the way to square roots
- Free or .99



# What are Your Favorite Apps?



**Our Question to You:  
What have You Learned today?**

# Contact

**Martha Rust**

AT Specialist

[Martha.Rust@gatfl.gatech.edu](mailto:Martha.Rust@gatfl.gatech.edu)

## *Disclaimer*

*This presentation is produced by Tools for Life which is a result of the Assistive Technology Act of 1998, as amended in 2004. It is a program of the Georgia Institute of Technology, College of Architecture [COA], AMAC and is funded by grant #H224C030009 of the Rehabilitation Services Administration (RSA), Department of Education. The contents of this presentation were developed under a grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, Georgia Tech, COA or AMAC and you should not assume endorsement by the Federal government.*