Reading and Writing Apps for Dyslexic Students

Arlene Siegwarth
Stephanie Talalai

List of Apps
https://goo.gl/6SfUuV

This Presentation
https://goo.gl/sCzkZp

NJ Coalition for the Advancement of Assistive & Rehab Technology

www.njcart.org

Stalalai@njcu.edu

What is Dyslexia

“Dyslexia is defined as a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities”

(International Dyslexia Association)

Simple definition

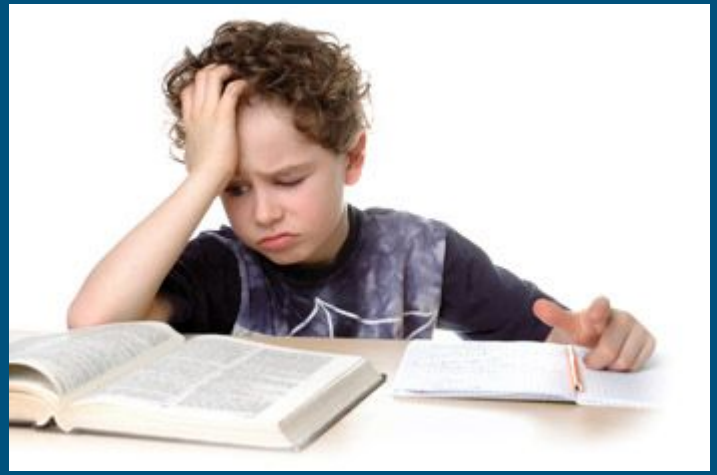
Dyslexia is a neurological condition which makes it difficult to read, write, and spell in your native language despite having at least average intelligence.

Many schools use the classification Specific Learning Disability (SLD) instead of Dyslexia.

NJ Law

New Jersey law now requires school districts to provide certain teaching staff members at least two hours of professional development instruction on the screening, intervention, accommodation, and use of technology for students with reading disabilities, including dyslexia (C.18A:6-131).

NIH Findings released 1994



1 in 5 students have Dyslexia

Most go undiagnosed.

NIH Findings

- **Dyslexia is due to a difficulty processing language. It is not due to visual problem.**
- **Dyslexics use a different part of their brain when reading.**
- **Dyslexic children display difficulty with the sound/symbol correspondences of our written code**
- **Reading failure is highly preventable through direct, explicit instruction in phonemic awareness.**
- **Children do not outgrow reading failure or dyslexia.**

Dyslexics are not:

- lazy
- unmotivated
- stupid
- uneducated

The right side of their brain is more developed so their visual-spatial skills and their logic and reasoning skills are far superior

Assistive Technology Solutions

- Audiobooks
- Text to Speech
- Dictation programs
- Word Prediction
- Graphic Organizers
- Spell Checker
- Calculator

These are all available on an iPad!

Reading Alternatives

Audiobooks - Text to Speech apps

It is important that Dyslexic students have access to the same books that their non-disabled peers are reading.

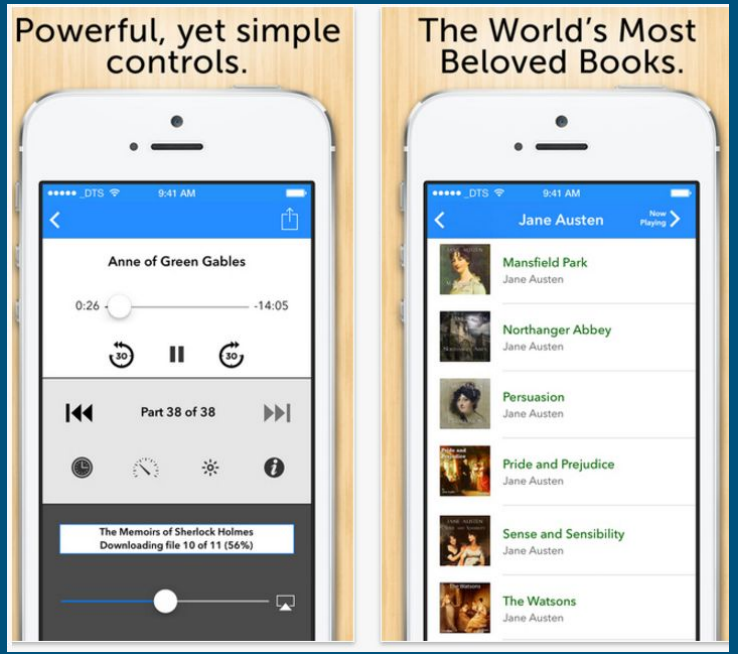
Audiobooks - **Free**

Books are read by real people.

Listen to 5,533 classic audiobooks free.

Books in the public domain are free.

Others can be purchased.



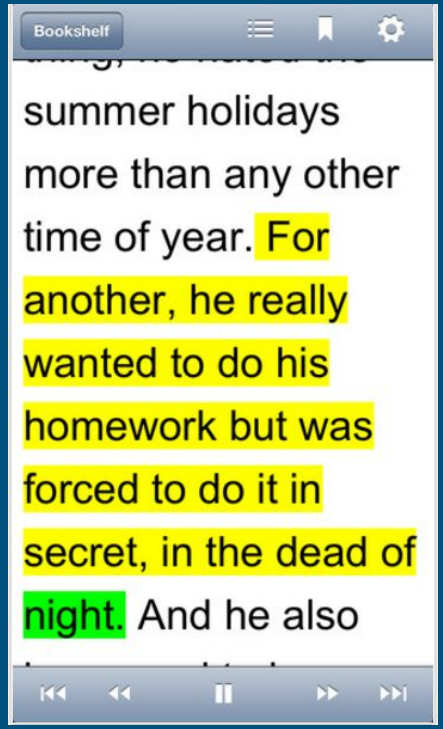
Learning Ally Audio - Free *

Books, including textbooks, read by real people.
Navigate by page or chapter.
Set Bookmarks

** Learning Ally membership required to use this app.*

Read2Go - $19.99

Browse, search, download, and read books directly from Bookshare. Features word-by-word highlighting for multi-modal reading.



BookShare.org

Voice Dream Reader - **Free/$9.99**

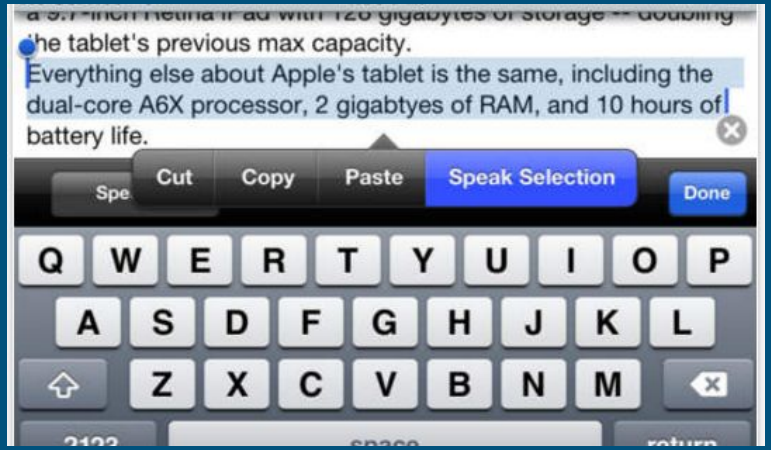
Advanced text-to-speech
Highly configurable screen layout
Can be tailored to suit every reading style from completely auditory to completely visual, plus synchronized combination of both.
Opens many file formats - PDF, Word, ePub, DAISY, etc

Links to BookShare. Does not display images.

Speak it! $1.99

Copy emails, documents, web pages, PDF files, and more;

Paste them into Speak it! and have the text spoken back to you.



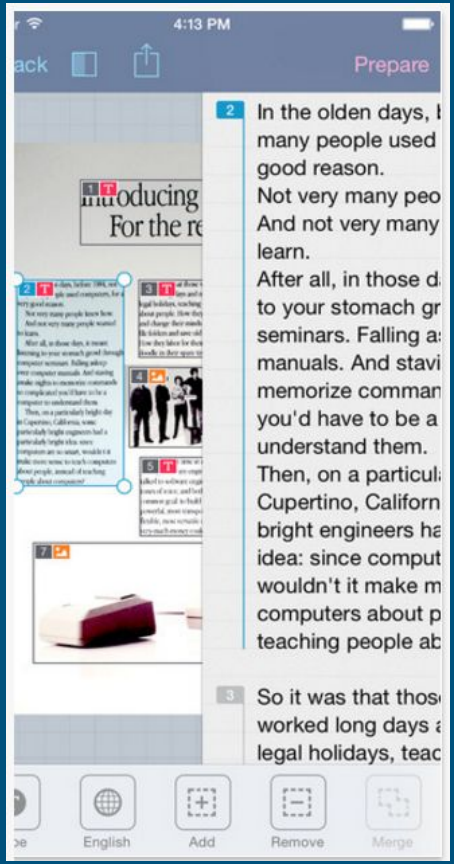
Prizmo $9.99

Use iPad's camera to "scan" print or worksheets

Uses OCR technology so documents can be read by text to speech apps.

Edit text before saving

Export as text, editable PDF or as a picture



Writing Aids

Many people with Dyslexia also have writing challenges.

Apps can help with:

Spelling

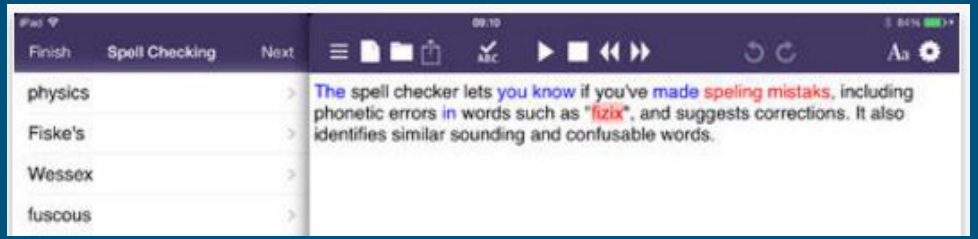
Handwriting

Keeping thoughts organized

iReadWrite $19.99

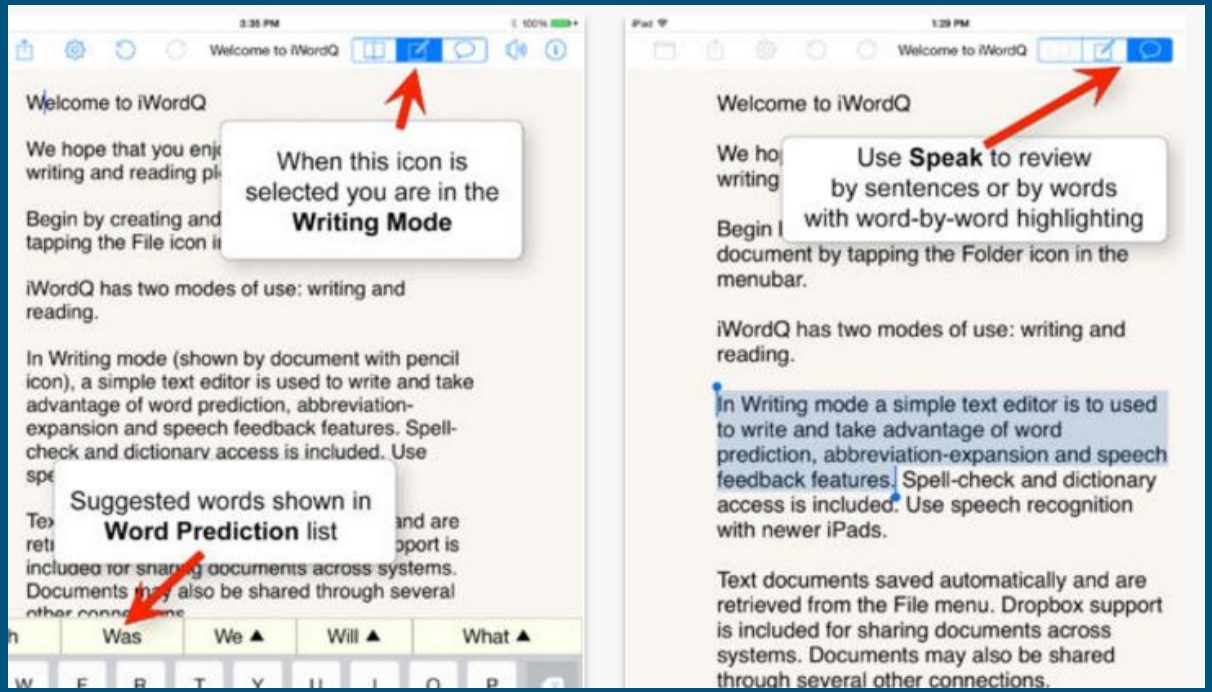
Supports for Reading & Writing

Text to speech with highlighting
Open Dyslexic Font
Typing with Word Prediction
Picture Dictionary
Phonetic spell check
Homophone & Confusable checker
Change background & text colors



iWordQ US $24.99

Smart word prediction
Speech feedback
Text Chunking
Reading & Writing modes
Keyboard hidden
Text masking



CoWriter App $19.99

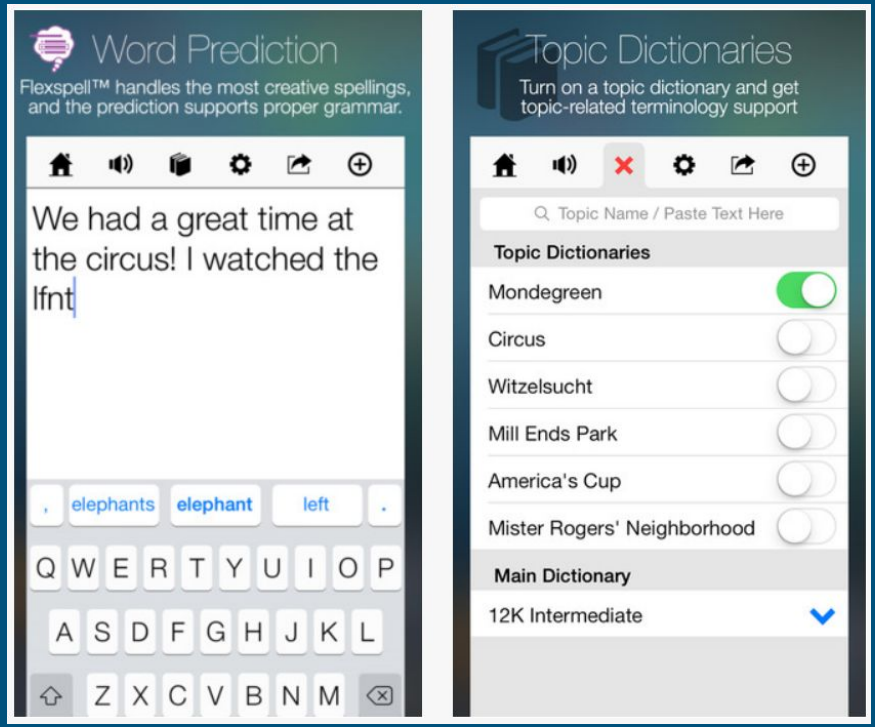
Flexible spelling

Grammar support

Topic dictionaries

Words/sentences read aloud

Send to DropBox or Google Drive

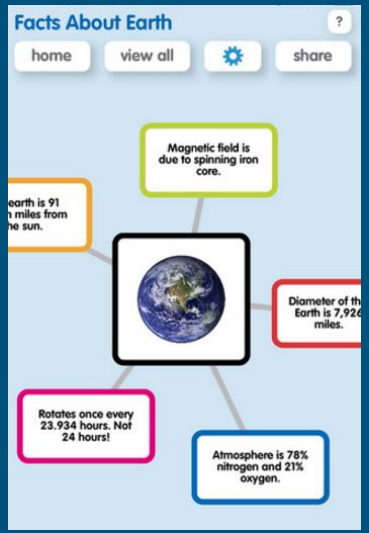


Graphic Organizers

Begin structuring the writing process
Create Mind Maps
Use as classroom visuals

Popplet (Free/$4.99)

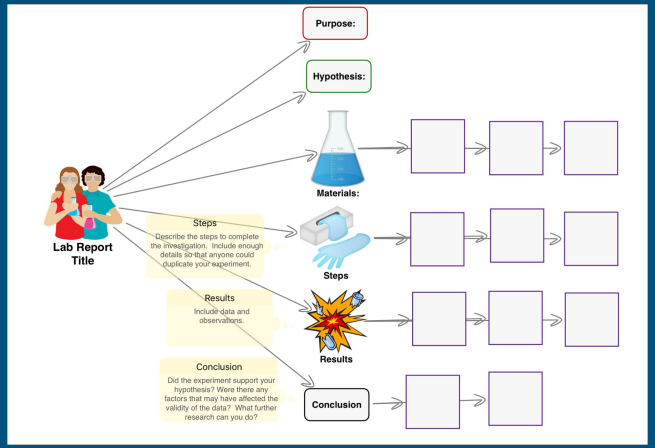
Popplet is a productivity app that also works as a mind mapping tool.



Lite version only lets you create 1 popplet. Paid version is unlimited.

Kidspiration Maps

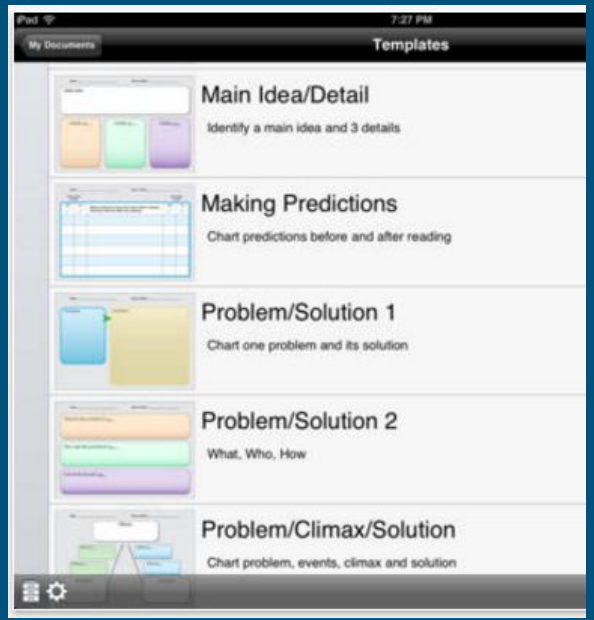
Inspiration Maps

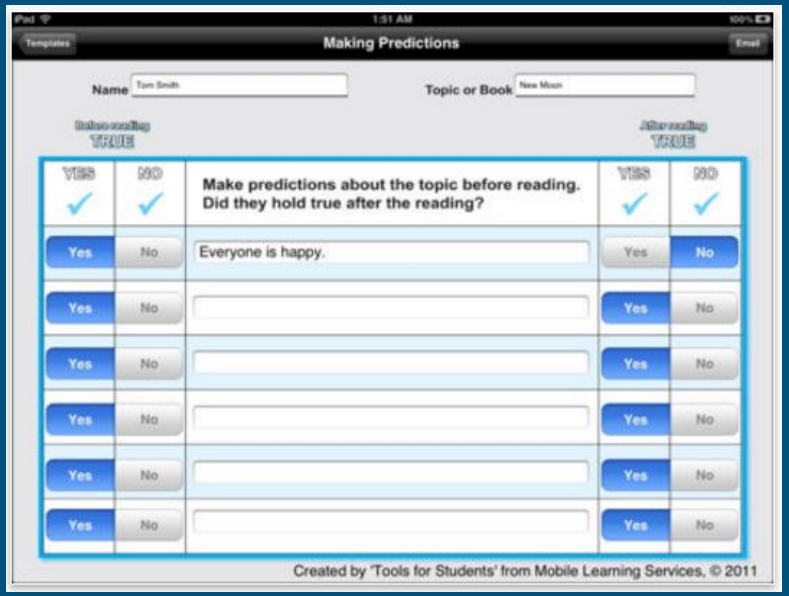


(Free/$9.99) Lite versions limit you to 5 docs. Includes many templates.

Tools 4 Students $0.99

25 graphic organizers





Accessible worksheets
Note taking

Worksheets can be completed on an iPad.

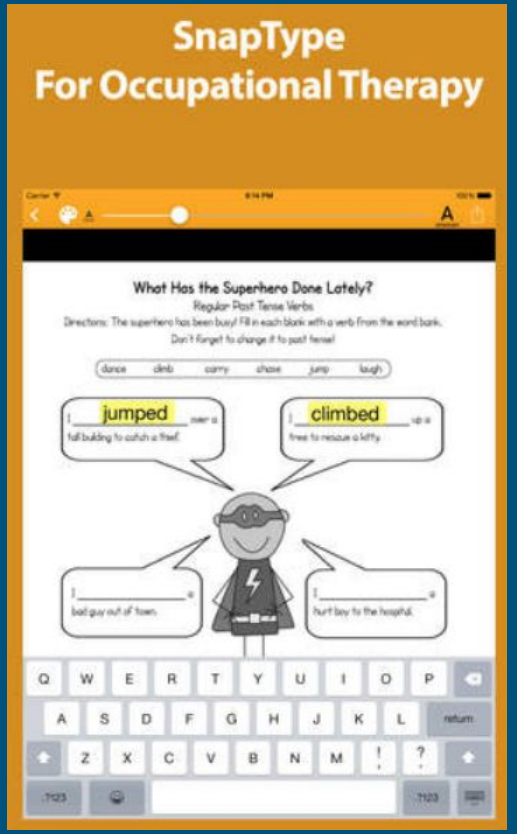
Scan paper worksheets by taking a picture of them.

PDFs can be opened in a variety of apps.

SnapType Free/$3.99

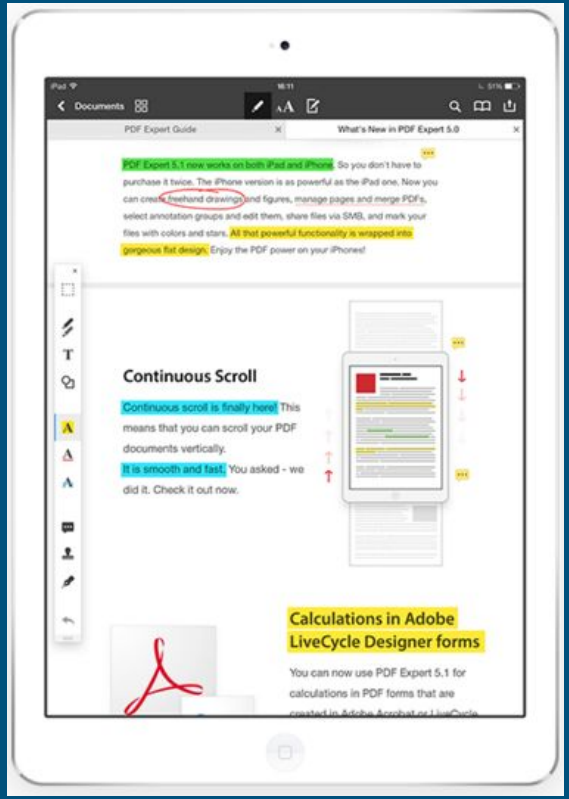
Take a picture of a worksheet
and type in answers

Paid version lets you save more than 3 documents and change the background color.



PDF Expert $9.99

Fill out worksheets.
Type or write on PDFs even if protected.
Have questions read to you.
Underline or highlight text.
Sign forms.



AudioNote - Notepad & Voice Recorder

$4.99

Each note acts as a link directly to the point at which it was recorded, taking you instantly to what you want to hear.

AudioNote Features:

- Synchronized note and audio recording
- Seek directly to audio by tapping notes
- Highlighted notes during playback
- Insert text, drawing, photo, & highlighter notes

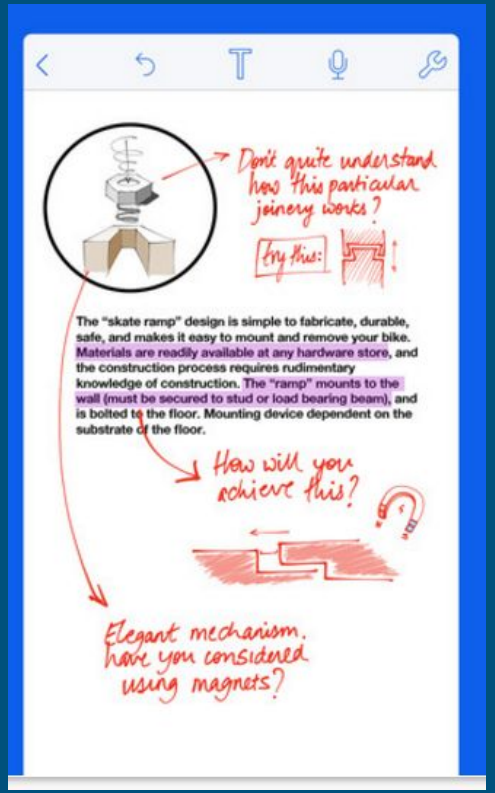
Notability $5.99

Simple note taking and pdf annotation

Handwrite, sketch or type in a variety of colors

Highlight typed text

Links notes to audio recording

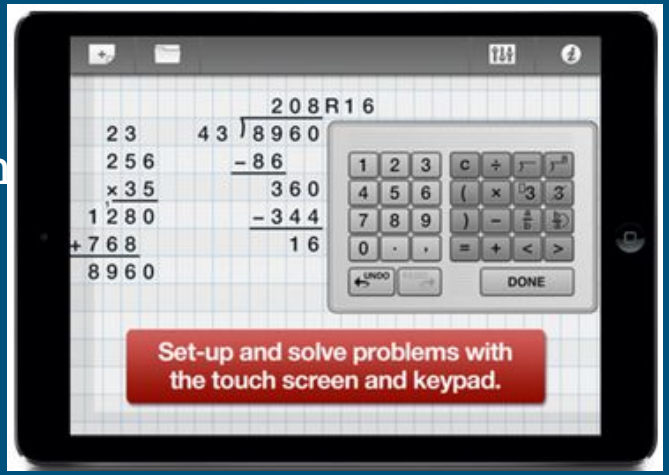


Doing math problems on an iPad

ModMath - Free

Type math problems on the iPad instead of usin

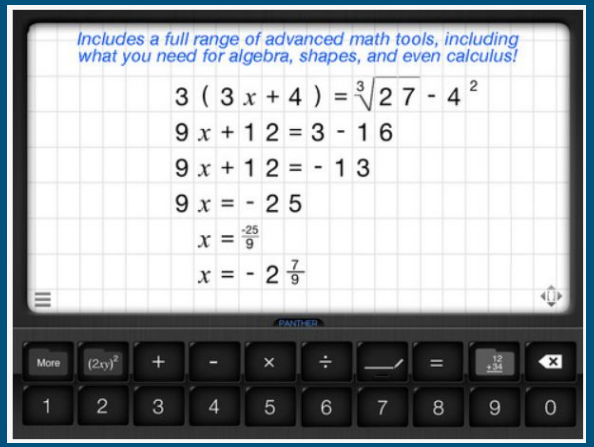
pencil and paper.

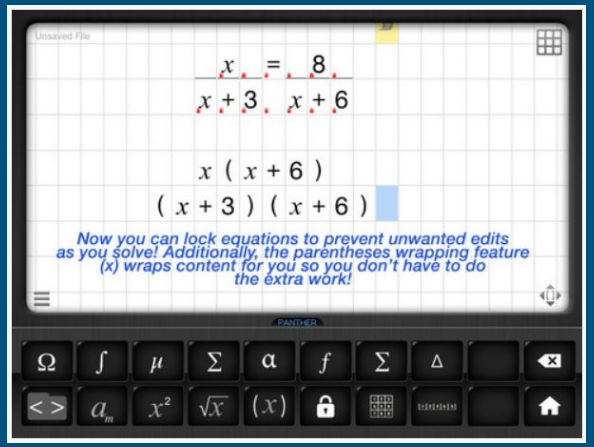


For Higher Math

Panther Math Paper - $19.99

Settings for beginning math and advanced math.





Skill Building

- Comprehension
- Phonemic Awareness
- Word Recognition
- Spelling
- Handwriting/Fine Motor
- Directionality

Question Builder $5.99

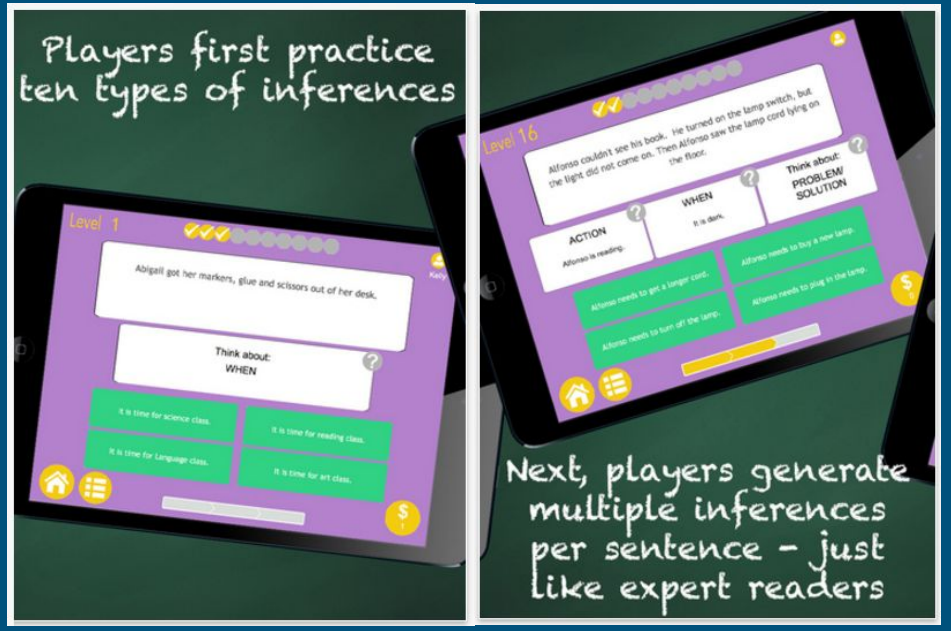
Designed to help children answer abstract questions and create responses based on inference. Audio clips promote improved auditory processing for special needs children with autism spectrum disorders or sensory processing disorders.

Inference Ace: Reading Comp - FREE

Builds inference skills step by step.

Mastering a level unlocks the next.

First 4 levels are free. In app purchases for additional level or additional players.

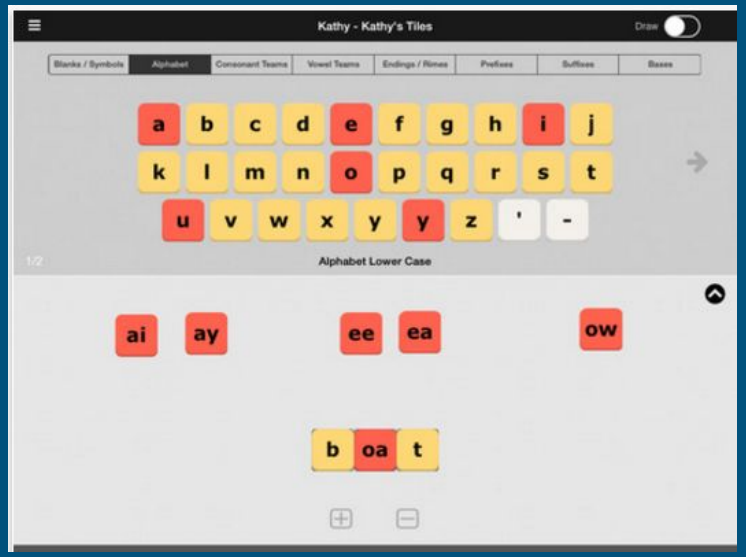


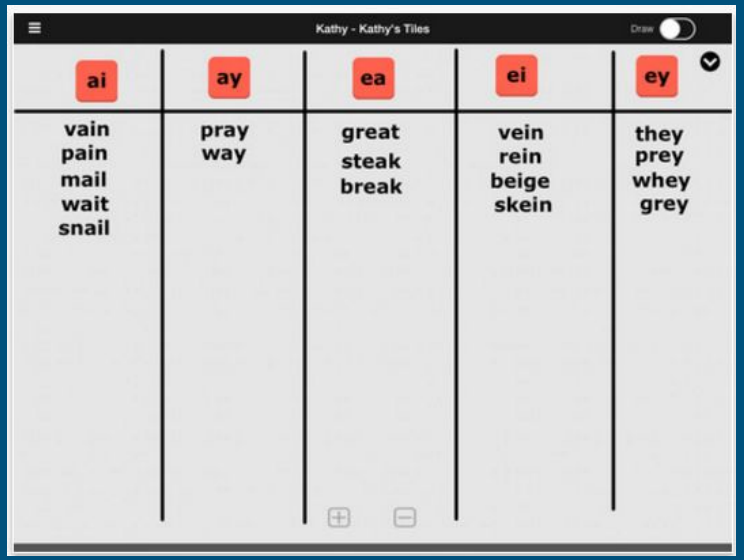
Dyslexia Quest - $3.99

The Yeti Master will take your child on an adventure while testing working memory, processing speed, visual memory, phonological awareness, auditory memory, and sequencing skills. Learn your child's strengths and weaknesses as well as how to encourage improvement in those areas.

Sound Literacy $24.99

Orton-Gillingham or Wilson reading Instruction in a mobile app. Provides a teacher, tutor, speech therapist, or parent a tool for enhancing literacy lessons.





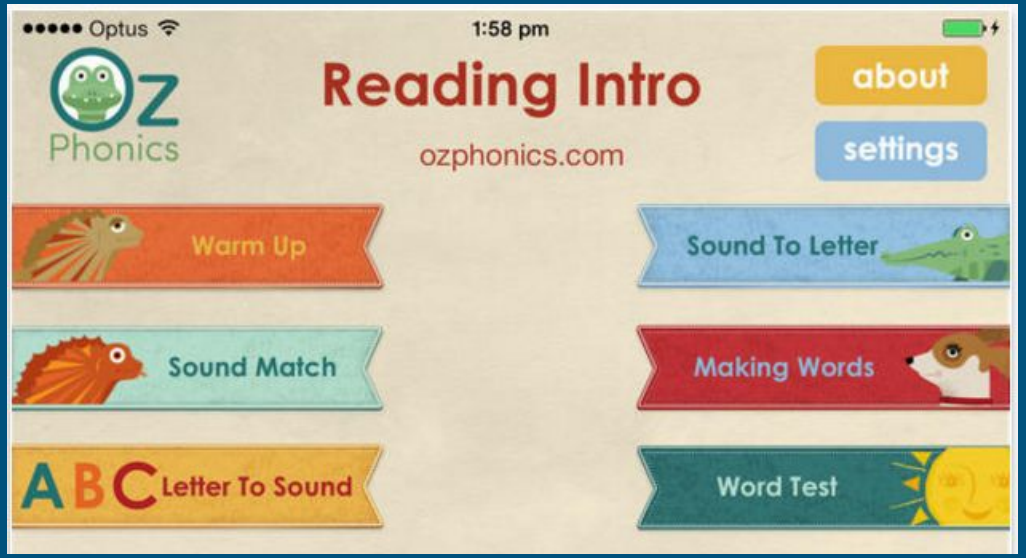
Oz Phonics $ 7 .99

Suite of apps cover many Common Core State Standards in Reading

iPad exercises

Printable worksheets

Purchase as bundle or individually



Phonics Genius Free

Thousands of words grouped into 225 phonic categories

Change the font size and color

Import your own content

Word Wizard $4.99

Talking Movable alphabet that allows kids to experiment with phonetic sounds and word building.

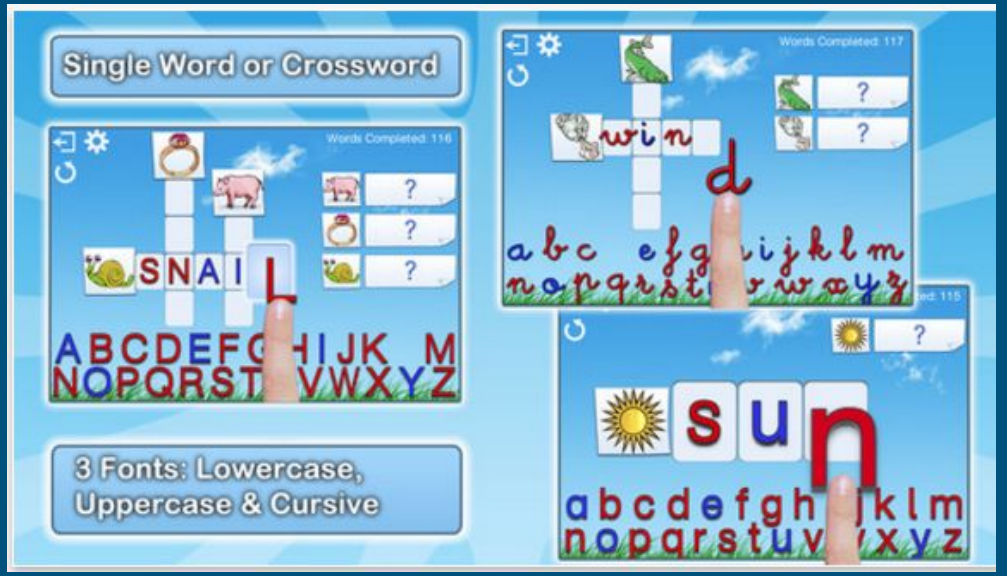
Montessori Crosswords $2.99

Development of reading and spelling skills through phonemic awareness.

3 levels of difficulty

30 word-image-audio-phonics combinations

Phonics enabled moveable alphabet

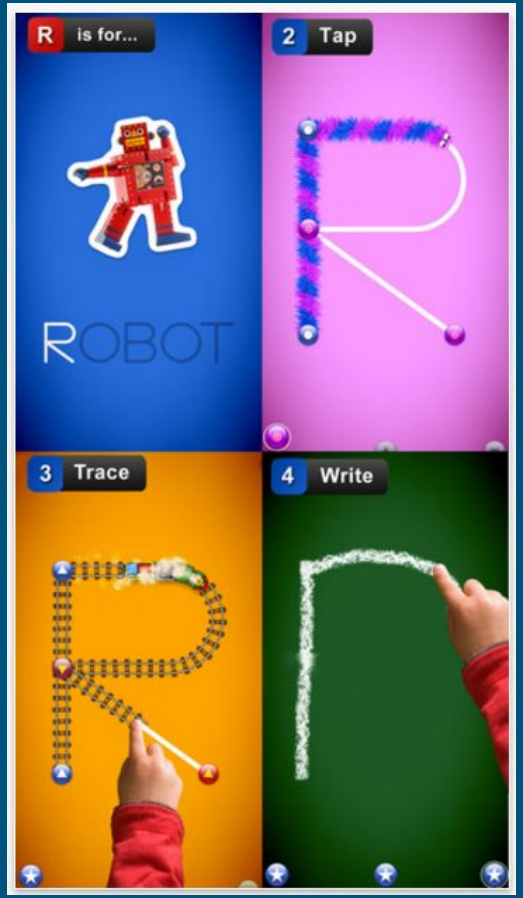


Simplex Spelling HD $4.99

Improves Spelling and Reading skills
Fun and Interactive
Unique “reverse phonics” approach
Explains why words are spelled in a particular manner.

Letter School $4.99

Write Letters and Numbers
Uppercase and lowercase letters
Full prompts fading to no prompts
Choice of 3 most popular typefaces in handwriting
Progress and settings stored for up to three players.



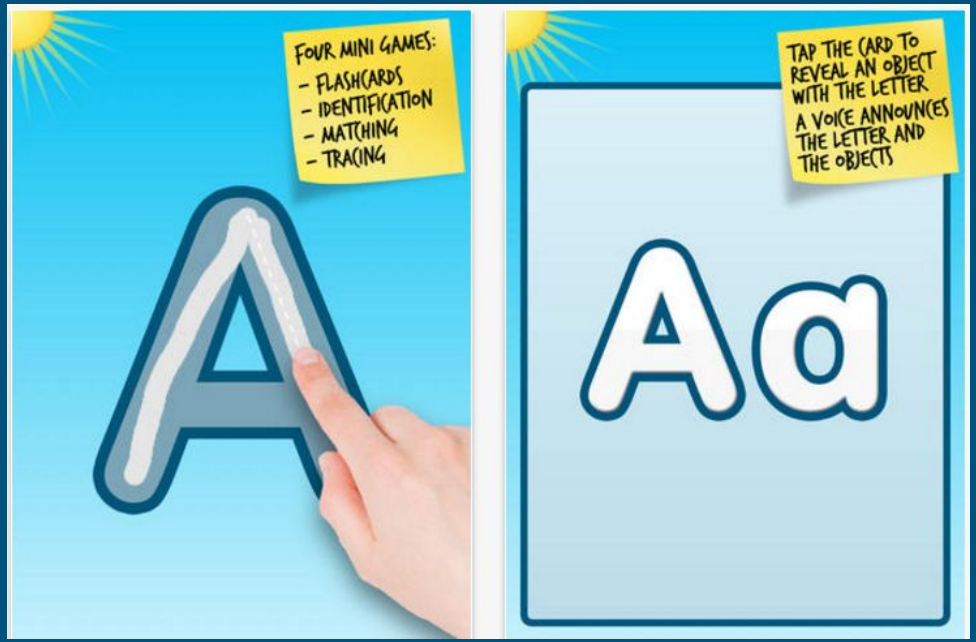
Letter Quiz free*/$1.99

Letter recognition

writing practice

4 games

* Free version goes to letter H



LetterReflex $3.99

Provides a fun way to help overcome common letter reversals. Tilt It activity uses kinesthetic learning techniques to help kids map their left side/right side to correct letter formation. They will learn the correct position of letter loops by being challenged to tilt the device in the correct direction to form letters. The second activity, Flip It, allows them to practice what they learned while honing their letter discrimination skills.

Key Points

- Dyslexia is a lifelong condition that affects reading, writing, spelling and even speaking.
- Dyslexia is very common and is not a sign of low intelligence.
- Teaching methods that involve sight, sound and touch can improve skills significantly.
- Proper interventions can have life changing effects

References

Burr, E., Haas, E., and Ferriere, K. (July 2015). *Identifying and supporting English learner students with learning disabilities: Key issues in the literature and state practice*, U.S. Department of Education, Institute of Education Sciences, Regional Educational Laboratory at WestEd.

Connor, C., Alberto, P.A., Compton, D.L., and O'Connor, R.E. (February 2014) *Improving Reading Outcomes for Students with or at Risk for Reading Disabilities: A Synthesis of the Contributions from the Institute of Education Sciences Research Centers*, U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research.

The National Center for Learning Disabilities (NCLD) (2014). *The State of Learning Disabilities* (Third Edition). New York: NCLD

https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/dyslexia/understanding-dyslexia

Eden, G. (n.d.). Is there a certain font that works best for kids with dyslexia? Retrieved from https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/dyslexia/is-there-a-certain-font-that-works-best-for-kids-with-dyslexia