Resources for families with a student with Vision Impairment

National Homework Hotline for Blind/Visually Impaired Students (NHH-BVI)

https://www.pathstoliteracy.org/resources/national-homework-hotline-blindvisually-impaired-students-nhh-bvi?fbclid=IwAR0JIkRSv8CPzXrUxR8til0K1Caqx-FBzjPxWu7qiaWWsW63nuZhsyzPIcw

By Charlotte Cushman

In response to the wave of K-12 school closures across the United States due to COVID-19, a few concerned teachers of the blind and advocates got together to organize a free, homework help hotline for students who are blind or visually impaired.

What:

Homework telephone hotline for blind/vision impaired students in grades K-12 experiencing emergency school closures due to COVID-19.

Areas of Hotline Help

Includes:

- Navigating accessible websites with JAWS
- Nemeth and literary braille reading and writing
- Navigating tablet/laptop using JAWS and Over
- Using refreshable braille display.

*The hotline does not provide tutoring in non-Expanded Core Curriculum content areas

When:

Tues -Thurs, 3:30pm - 8pm EST, March 17- April 16, 2020 (*end date may be adjusted based on school closure developments)

How:

Students submit a support request via email and receive a call-back during the designated NHH-BVI times.

Who:

NHH-BVI helpers are experienced, TVIs, counselors, blind mentors who want to help b/vi students get the support they need to access their remote learning programs.

For more info, and to request an initial NHH-BVI support call, please email **nhh-bvi@vistaseducation.com**.

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https://www.pathstoliteracy.org/resources

Panopreter Text-to-Speech Software

By Charlotte Cushman
https://www.pathstoliteracy.org/technology/panopreter-text-speech-software

Panopreter is a text-to-speech and text-to-mp3 software program with the following features:

- Reads text aloud with natural sounding voices, and converts the text to audio files in wav, mp3, ogg and flac formats

- Reads the text selected in any other software window and copied to the Windows clipboard

- Highlights the word or sentence being read

- Supports a wide variety of languages and voices

- Supports batch file conversion

- Includes a toolbar for Internet Explorer, the toolbar can read the text on the web page, and convert the text to audio files

- Includes a toolbar for Microsoft Word, the toolbar can read the text on the Word document, and convert the text to audio files

- Adjusts audio files' sample rate and bit rate to obtain satisfactory audio quality or audio file size

- Allows users to customize interface layout, font, text size, text color, highlight color, and background color

- Allows users to adjust voice speed, volume, and pitch

- Keyboard shortcut keys

- Speaking repetition

- Plays music when it finishes reading the text

UEB Unified English Braille Prep App

By Charlotte Cushman
https://www.pathstoliteracy.org/technology/ueb-prep-app

UEB Prep is a free app for the iPhone that is designed to teach Unified English Braille (UEB) to people who are sighted. Created by Holly Lawson of Portland State University in collaboration with their Computer Engineering department, UEB Prep "walks users through the process of learning braille by introducing basic concepts like the alphabet and progressively moving towards contractions, wordsigns, and more. Users reinforce course content by moving through interactive exercises including multiple choice questions, reading translations, and fill-in-the-blank problems. Learners can also use a built-in braille keyboard to braille individual words and full sentences, which allows for practical practice and deeper learning in a fun and engaging way. Other features like accessible games and a math curriculum will be released in the future as well!"

Braille for You and Me is the first course, which is designed for families. It includes the following lessons:

- Lesson 1: The Braille Cell and letters a-j
- Lesson 2: Letters a-k
- Lesson 3: Letters u-z
- Lesson 4: Capitalize and Punctuate It!
- Lesson 5: 1-2-3 Look at Me! Braille Numbers
- Lesson 6: Look Ma, Real Words! - Wordsigns
- Lesson 7: Staying Strong - Strong Contractions
- Lesson 8: Hey Shorty -- Shortforms
- Lesson 9: "Talk to Me" -- More Punctuation
- Lesson 10: Group Hugs -- Group Signs
- Lesson 11: More Shortforms
- Lesson 12: Hold Me Still -- Strong Wordsigns
- Lesson 13: How Low Can You Go? -- Lower Wordsigns
- Lesson 14: Jack and the Beanstalk -- Lower Groupsigns
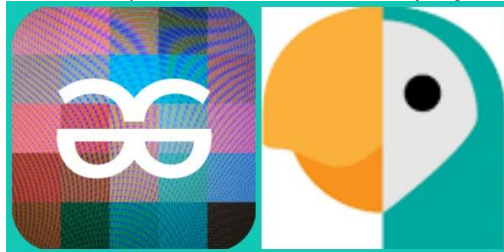- Lesson 15: Just Because We Can -- Even More Groupsigns

Apps to Support Mobile Literacy

https://www.pathstoliteracy.org/technology/apps-support-mobile-literacy

Accessing Text

1. **Audible** (**www.audible.com**): Subscription service to download narrated audiobooks (an Amazon Company). $14.95/month (Multiple devices supported.)
2. **BARD** - Braille and Audio Reading Download (**https://nlsbard.loc.gov/**): National Library Service for the Blind and Physically Handicapped Downloadable Books and Magazines. FREE (iOS, Android, Kindle)
3. **KNFB Reader** (**www.knfbreader.com**) - Turns any printed text into speech that is read aloud or into Braille with a connected Braille display. $99.99 for a two-device license (iOS, Android, Windows)
4. **Learning Ally** (**www.learningally.org**) - Library of human-read audiobooks and textbooks. $119.00 annual membership fee (iOS, Android)
5. **Overdrive** (**www.overdrive.com**) – Borrow ebooks, audiobooks, and more from your local Public Library. FREE (iOS, Android, Windows)
6. **Bookshare** (**www.bookshare.org**) Accessible Online Library for people with print disabilities.

- **Read2Go** - an accessible ebook reader app that lets you read Bookshare books on Apple devices. $19.99 (iOS)
- **GoRead** - is a free, open source ebook reader. Connects directly to online libraries like Bookshare. FREE (Android)

7. **Voice Dream Reader** (**www.voicedream.com/reader/**) Text-to-Speech ability to change text font size, spacing, color, highlighting, etc. $14.99 (iOS, Android)
8. **Voice Dream Writer** (**www.voicedream.com/writer/**) proofreads your writing with text to speech. $9.99 (iOS)
9. **CaptiVoice** (**https://www.captivoice.com/capti-site/**) Listen and read audiobooks, website content, and documents in multiple formats. Cloud services, save and access documents offline; multiple languages supported. FREE (iOS) (Premium plan available)
10. **@Voice Aloud Reader** (**http://www.hyperionics.com/atVoice/**) HTML reader, document reader and ebook reader all in one for reading both on-screen or listening. FREE? (Android)
11. **iBraille Challenge App** (**http://www.brailleinstitute.org/braille-challenge-homepage/ibraille-chal...**) Utilizes a Braille Display. Coming Soon!

Accessing Environmental Print

1. **BlindSquare** (**www.blindsquare.com**) GPS navigation app that describes the environment, announces points of interest and street intersections as you travel. (iOS)
2. **TapTapSee** (**http://taptapseeapp.com/**) Identifies/speaks the identification of a photo of anything, at any angle. FREE (IOS, Android)
3. **Aipoly** (**http://aipoly.com/**) Uses real-time image recognition to identify objects and colors. FREE (iOS, Android)
4. **Aira** (**https://aira.io**) A service utilizing wearable smart glasses, a smartphone, WiFi connection, and certified live agents to respond to requests from the user. ($89-$329 monthly plans)
5. **LookTel Money Reader** (**http://www.looktel.com/moneyreader**) Recognizes currency and speaks denominations; supports a number of currencies and languages. FREE (iOS)
6. **IDEAL U.S. Currency Identifier** (**http://moneyfactory.gov/**) Identifies denominations of U.S. paper currency. FREE (Android)
7. **Seeing AI** (**https://www.microsoft.com/en-us/seeing-ai/**) Speaks/reads text, locates scans barcodes to identify products; recognizes friends/people. FREE (iOS)
8. **BeMyEyes** (**http://bemyeyes.com/**) Connects visually impaired users to sighted volunteers via a live video connection. FREE (iOS, Android) (must be 17+ to download)
9. **Digit-Eyes** (**http://digit-eyes.com/**) Barcode reader; can make or record your own QR labels or buy pre-printed washable labels; large database of manufacturer product codes. $9.99 (iOS)

Bonus Website!

GCF Global www.gcflearnfree.org
Offers tutorials on more than 180 topics. Hundreds of lessons, videos, interactives and games, completely FREE! Most activities accessible using JAWS. (Some quizzes and activities have pictures, but the content is usually covered within the text.) Resources on Technology, Reading, Math, Work and Career, Daily Living (Everyday Life) and more.

Voice Dream Reader

https://www.pathstoliteracy.org/technology/voice-dream-reader

By Charlotte Cushman on Jan 18, 2018

Voice Dream Reader is an accessible reading tool with a mobile text-to-speech app and a highly configurable screen layout.   Voice Dream Reader supports reading PDF and Word documents, DRM-free EPUB and DAISY eBooks, web pages and more. It's directly integrated with Bookshare, Dropbox, G-Drive, Evernote, Pocket, Instapaper, and Gutenberg.
Available from iTunes for $14.99: https://itunes.apple.com/app/voice-dream-reader-text-to/id496177674
http://www.voicedream.com/

Flip–Over FACES App to Explore Facial Expressions

https://www.pathstoliteracy.org/technology/flip-over-faces-app-explore-facial-expressions

Flip-Over FACES is the latest app from American Printing House for the Blind (APH). It is designed to allow children with low vision or autism to explore facial expressions. You can

generate hundreds of facial expressions by changing eyebrow position, eye direction, and mouth type. In addition multiple hair styles and eyewear options are available. This app is especially designed for students with low-vision and a cognitive level of aged 5 years of age and older. Students with language delays may also benefit from this app. Sighted students and adults are invited to enjoy it as well!

This app requires iOS 11.0 or later and is compatible with iPhone, iPad, and iPod touch.

App for Creating Flashcards: Sight Words – Record and Read

https://www.pathstoliteracy.org/technology/app-creating-flashcards-sight-words-record-and-read

By Dorit Resnikoff

I have been looking for an iPad app to create flash cards that allow for font size accommodation, as well as text-to-speech, in order to help my students do review work.

I did some research and found **Sight Words - Record and Read**, which works very well and is very simple. It allows you to add and record new words for free or buy pre-fab lists for about a dollar (we're using it free). It does not allow for font size change or two finger zooming (I didn't try it with magnification from accessibility, but it would probably work), but the font is already pretty big and clear (you can change the font style).

Another feature I like is that it has no advertisements and the buttons are very large. I tried Quizlet, but they had ads every other screen with sounds and tiny escape "x" that showed up in different corners each time.

Description from iTunes

Add words and record their pronunciation to help your kid study. Children enjoy practicing with a familiar voice or recording their own voice. Includes a few prerecorded Dolch lists and others are available via in-app purchase.

Features

- Add new words and record them in your own voice
- Tag problem words for later review
- Prerecorded words available via in-app purchase
- Turn each word list on and off individually
- Simple interface is easy for kids to use

Help Kidz Learn: Educational Games

https://www.pathstoliteracy.org/technology/help-kidz-learn-educational-games

By Charlotte Cushman

HelpKidzLearn is a collection of software for young children and those with learning difficulties to play online. The software is split into five sections: Early Years, Games and Quizzes, Stories and Songs, Creative Play & Find Out About.

The creators recommend that these activities be played together with your child or student. They can be used as a focus for chatting. Speaking and listening is very important for young children's educational development, particularly reading and writing.

More than one hundred games and activities can be accessed using mouse and keyboard, switch(es), touch screen, interactive classroom displays, joy stick, roller ball and eye gaze. These can be played by children with a wide range of special educational needs and learning difficulties at a pre-literacy or early literacy level.

Each game notes what skills it works on and how it can be accessed through different types of switches. For example, in the game "Splat" below it says: "Develop your tracking and eye-hand

coordination skills in this classic game of splat that kids love to play. Accessible with touch, mouse, eye gaze or switch."

Some teachers recommend using **Tapio** for switch access using an iPad.

Make Your Own Tactile Memory Game

By **AT Neal**

Build a Better Book recently held a training for people interested in Makerspaces to create inclusive media, such as picture books, games, and graphics. Families, teachers, and students worked together to create accessible materials.

Background on Build a Better Book

The **Build a Better Book project**, based at the University of Colorado Boulder, works with school and library Makerspaces to engage youth in the design and fabrication of accessible picture books and graphics. Using both low- and high-tech Makerspace tools, such as 3D printers, laser cutters, Makey Makeys, conductive boards and craft materials, youth design, fabricate, test and refine multi-modal books, games and STEM graphics that incorporate tactile and audio features. These products are designed by and for learners with visual impairments as well as other physical and learning disabilities. Through the Build a Better Book initiative, middle and high school youth develop technology skills and learn about STEM careers as they design and create accessible, multi-modal picture books, graphics and games that can be seen, touched and heard!

Motivated by a Need for Inclusive Games

We initially developed the **Tactile Memory game** in collaboration with several families with tweens and teens who were blind or visually impaired. One mom (of a then 12-year-old) had mentioned to us that it would be fun for her daughter and some of her friends to work on

creating games, not just books. She mentioned that they had a hard time finding games that worked well to play as a family, and that it would be fun to have more games that all family members, regardless of vision, could play together. We decided to start with Memory, as a simple game that could be fabricated with basic materials. This is a hand-crafted version that uses readily accessible materials.

Design Criteria

When thinking about how to make an effective Tactile Memory game, remember:

- Shapes/objects should be the same height off the board so that height is not a distinguishing factor.
- Shapes should be easily distinguished from each other. You can use common shapes (e.g., circle, square, star, etc.) or create your own unique shapes and designs.
- Don't be afraid to use color as well so this game is fun for everyone.
- The tiles/cards should be fairly sturdy so they don't get damaged.
- You may want to add braille labels to the cards, or you could use this as a way to learn braille by having to match the shape with its braille label on a different card.

Guide to Making the Game

We made our first copy of the game using laser cut tiles with **Wikki Stix** shapes that were coated with **Mod Podge** in order to set the design. Our first game set was made collaboratively with the families, where each family member (parent, child, siblings) designed their own shape and then made a bunch of copies of tiles with that one shape. (Each person made 16 tiles, so that we had 8 complete sets at the end, one set for each family, along with some extra sets for Building Better Books and bldg. 61.) It was such a fun way to create a game – it was a community event where everyone (kids/adult, blind/sighted) had a chance to contribute equally to the game.

Making the Tiles

We used a laser cutter to cut rectangular 2" x 3" tiles out of a sturdy 1/8" thick craft wood. However, you could use any size or backing you'd like. Other materials that would work well for the tiles include foam core board, playing cards, or cardboard.

Wooden tiles

Making the Shapes

Use Wikki Stix to make your own designs and shapes on the Memory tiles. Make sure that the shapes you make are very different from each other so that they can be distinguished by touch. Also, make sure that you create two tiles with each shape, and that the matching shapes are the same size.

Tactile Memory

Cards　　　　　　　　　　　　　　　　　　　　　　　　　*Wikki Stix*

Use Mod Podge to Set the Tiles

If left uncoated, the Wikki Stix can be sticky to surfaces and also not super sticky to the tiles. We painted the tiles and shapes with Mod Podge to create a smooth surface that is nice to touch, and to effectively adhere the Wikki Stix to the tiles. This also helps to ensure that your Tactile Memory cards will last a long time!

Mod Podge

Create Your Own

You may choose to follow our instructions or modify as you'd like. One thing we noticed after playing several games of Tactile Memory is that the tiles move around as multiple people interact with them. One thing you may want to consider is creating some sort of board for the tiles to fit into so they don't move around on the game-playing surface. This could be made with a piece of plywood or cardboard with a thin raised border around the edge.

There is also a laser-cut version of the Tactile Memory Game. **Learn more**.
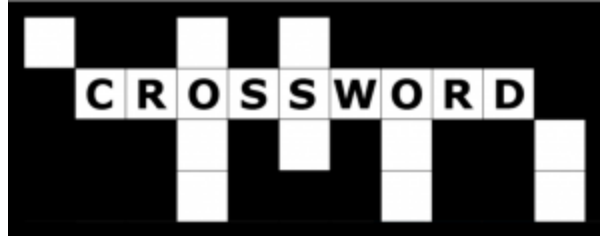Have fun and get creative! We'd love to hear about any designs you create. **Please let us know**!
Read more about: **3D Printing**, **Games**, **Tactile Discrimination**, **Social Skills**, **General Literacy**, **Assistive Technology**, **Families**, **Inclusion**

Accessible Crossword Puzzle App

https://www.pathstoliteracy.org/technology/accessible-crossword-puzzle-app

By Charlotte Cushman on Mar 15, 2019

Constructed with universal design concepts, this **Crossword Puzzle app** from APH (American Printing House for the Blind) provides a platform on which to solve crossword puzzles for all. The puzzles are fully accessible and can be navigated with a screen reader or VoiceOver.

The existing list of puzzles corresponds to academic content for 5th-12th grade, in US and World History, Science, Social Studies, Literature, Math, The Arts, and more. The dropdown list includes the following puzzles:

- 5th Grade Time
- 5th Grade Baby Animals (I and II)
- 5th Grade Geometric Shapes
- 5th Grade State Capitals (I and II)
- 5th Grade U.S. Presidents
- 5th Grade Women in History
- 5th Grade World Languages (I and II)
- 6th Grade Animal Life Cycles
- 6th Grade World Holidays
- 6th Grade Dance
- 6th Grade Marine Life
- 6th Grade Musical Instruments
- 6th Grade Landmarks and Monuments
- 6th Grade Pilgrims
- 6th Grade Units of Measurement
- 6th Grade World Currency
- 7th Grade Classic Children's Novels
- 7th Grade The Declaration of Independence
- 7th Grade Earth Day
- 7th Grade Earthquakes
- 7th Grade Music
- 7th Grade Explorers
- 7th Grade Nutrition
- 7th Grade Physical Fitness

- 7th Grade Volcanoes
- 8th Grade The Theater
- 8th Grade 20th Century Inventions
- 8th Grade Endangered Species
- 8th Grade Titanic
- 8th Grade The Great Depression
- 8th Grade Health
- 8th Grade The Human Body
- 8th Grade The Middle Ages
- 8th Grade The Renaissance
- 8th Grade Solar System
- 8th Grade What are you afraid of?
- 9th Grade Algebra
- 9th Grade Baby Animals (I and II)
- 9th Grade Geometric Shapes
- 9th Grade Grammar
- 9th Grade Literary Terms
- 9th Grade Literary Characters
- 9th Grade Mythology
- 9th Grade The Revolutionary War
- 9th Grade U.S. Presidents
- 10th Grade Civil War
- 10th Grade Geometry
- 10th Grade Cooking
- 10th Grade Space Exploration
- 10th Grade Sports Heroes
- 10th Grade The Stock Market
- 10th Grade Teen Health
- 10th Grade Social Media
- 10th Grade Time
- 10th Grade Women Novelists and Writers
- 11th Grade 1960s
- 11th Grade American Writers
- 11th Grade The 1950s
- 11th Grade Ancient Greek Theater
- 11th Grade Famous Couples

- 11th Grade Civil Rights Movement
- 11th Grade World Currency
- 11th Grade World Languages (I and II)
- 12th Grade American Judicial System
- 12th Grade Broadway Musicals
- 12th Grade World Languages
- 12th Grade College Majors
- 12th Grade College Life
- 12th Grade Human Brain
- 12th Grade Our Solar System
- 12th Grade Shakespearean Characters
- 12th Grade Famous Artists
- 12th Grade World Capitals (I and II)

Users can also create their own puzzles.

Getting Started with Dolphin Easy Reader App

https://www.pathstoliteracy.org/technology/getting-started-dolphin-easy-reader-app

By Gregory_gerhart

Dolphin Easy Reader is a free accessible reading app designed for those with print disabilities such as dyslexia, low vision, and blindness. Based out of the United Kingdom, the Dolphin Software Company has focused on developing accessibility software with magnification and screen reading solutions.

Easy Reader is available for both Android and IOS and optimized for use with accessibility tools such as Voiceover, Talkback and refreshable braille displays. Integration with Bookshare's vast library of accessible books makes reading on any device even easier. Easy Reader app users

can customize their print reading preferences such as text size, font, high contrast color schemes, line spacing, and more.

What you'll need:

- Android/IOS device
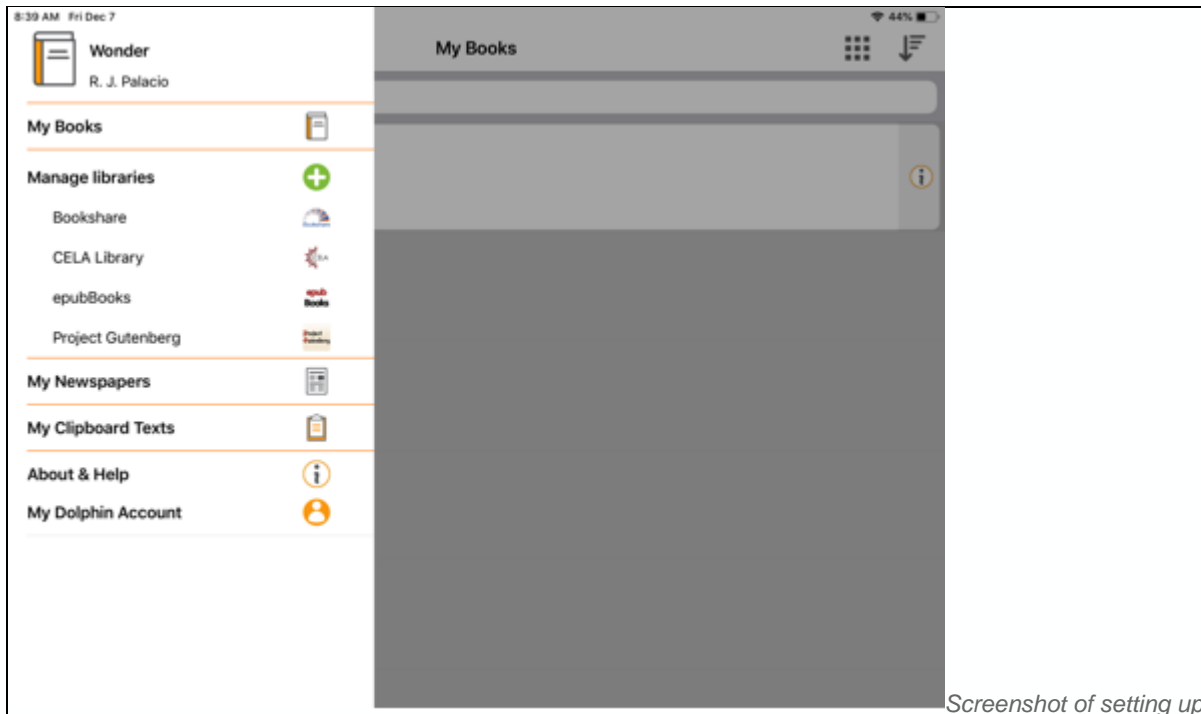- Google Account
- Bookshare Account

Step 1: Log into Dolphin Easy Reader using your Google account

Screenshot of logging into Dolphin Easy Reader using your Google account

Step 2: Click on Side Menu icon located in the top left corner. Select Bookshare. Enter Bookshare username and password.

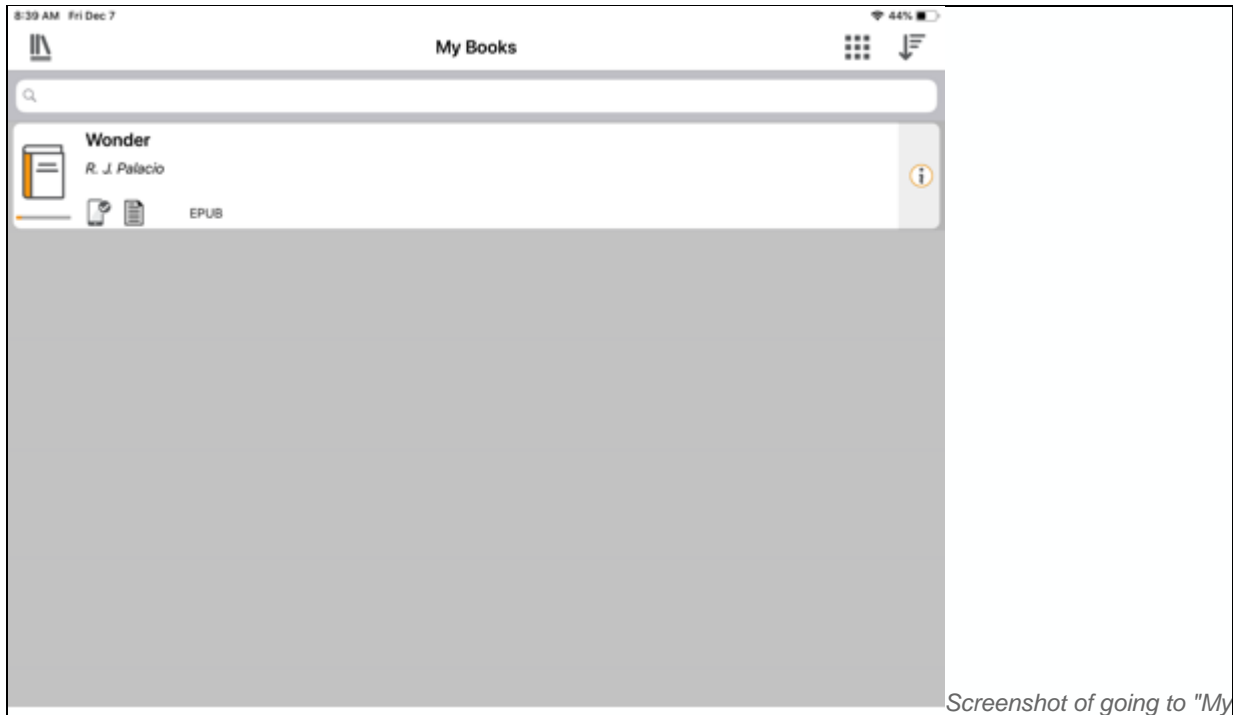*Screenshot of setting up Dolphin Easy Reader with Bookshare*

Step 3: Search and download your favorite book. Books are saved to My Books as an EPUB file.
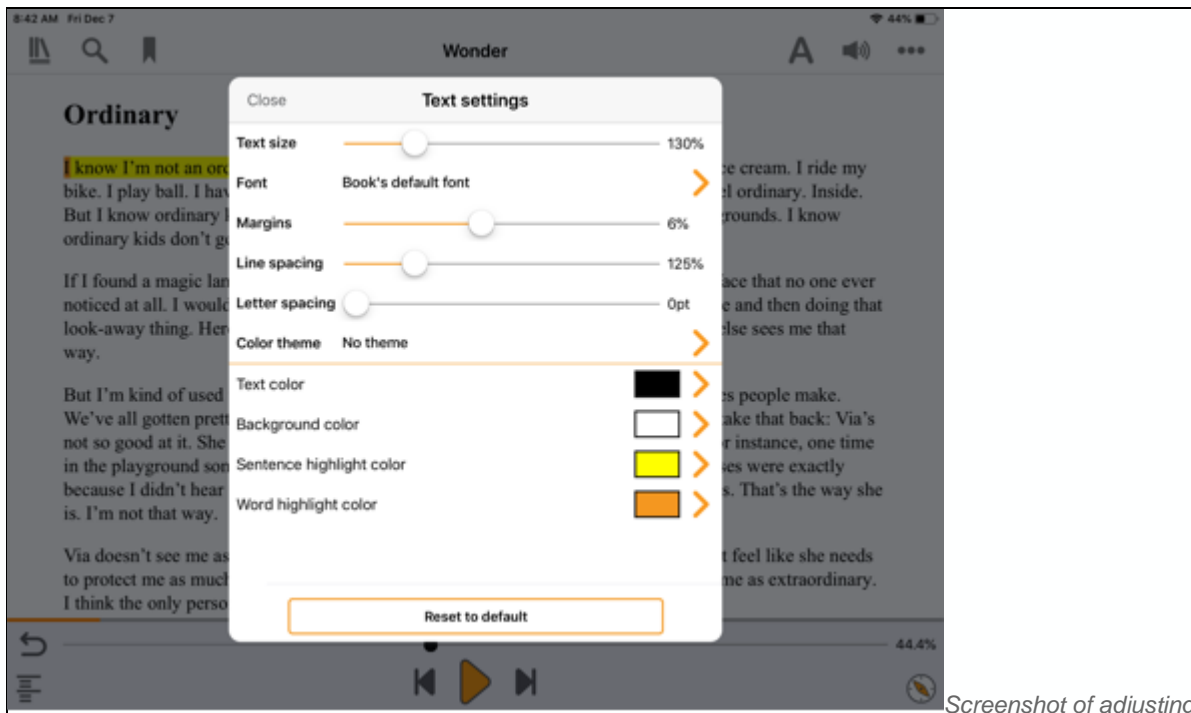

Screenshot of searching for and downloading your favorite book

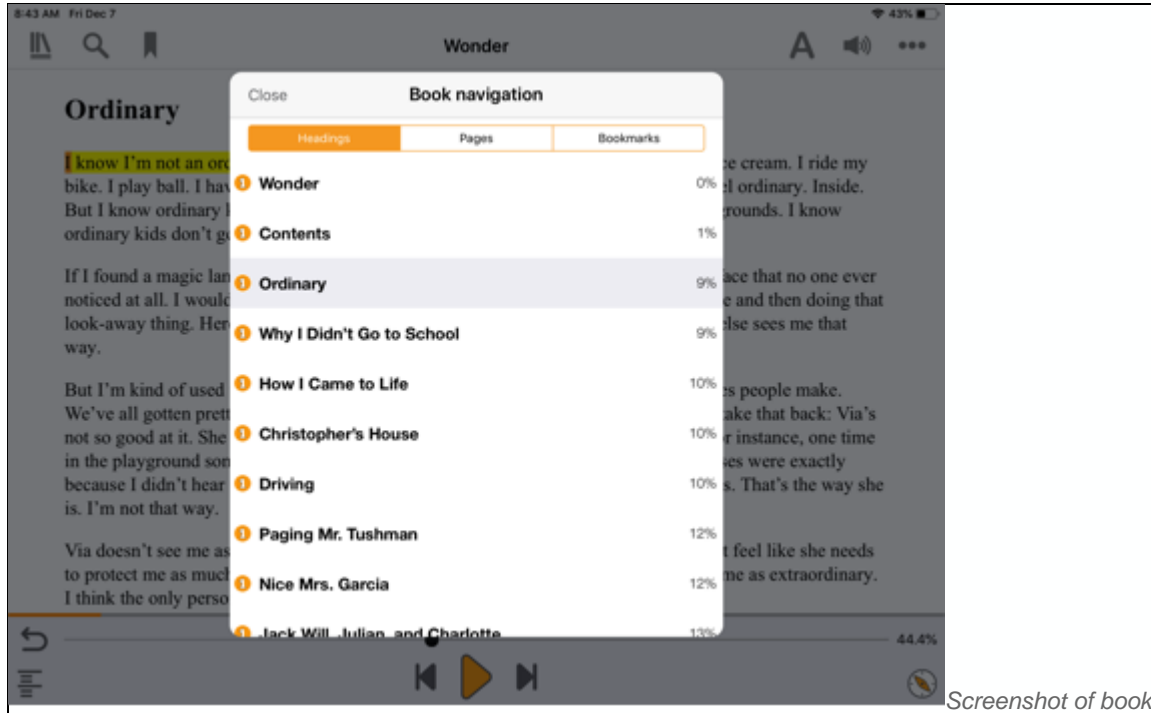Step 4: Go to My Books, open your book. Adjust Text Settings if necessary.

Screenshot of going to "My Books" and opening your book

Screenshot of adjusting settings

Screenshot of book navigation

Final thoughts:

As a teacher for the visually impaired, I have found that Dolphin Easy Reader has exceeded my expectations. Dolphin Easy Reader provides a lot of value at no cost. There are certainly other fantastic applications available such as Voice Dream Reader, but many of these apps cost around 20 dollars. Dolphin Easy Reader may be your most cost-effective way of getting accessible digital books into the hands of students with print disabilities. In my opinion, this application is a game-changer and a must-have download.