

BRIERCREST

Assistive Technology Guide

Assistive technology is any device, software, or piece of equipment that helps people work around challenges. Not all assistive technology is electronic. For example, something as simple as a pencil grip is a form of assistive technology.

This guide gives high-tech, low-tech, expensive, and free recommendations for assistive technology. I have not personally tested all the items listed, but all items either have high reviews or have been student-recommended. If there is something I have missed that you think should be included in this guide, please share it with me (egordon@briercrest.ca).

I've organized this guide alphabetically by academic task. Some sections are further divided by subheadings. Within sections, items are organized by cost.

Focus

Many academic tasks require focus and the eliminating of distractions. The following tools help you improve your focus by creating boundaries around your study times or adapting your study space.

- **Forest (free)**
[Forest](#) is a gamified timer that helps you stay focused. Every time you start a task, you plant a tree. The tree grows as you work. If you stop before the task is finished, the tree will wither. The more you focus, the bigger your forest becomes. The app is available on Google Play or the Apple App Store.
- **Spotify**
If background noise or music help you to focus, I recommend Spotify or a similar service. This can be used in conjunction with noise canceling headphones (or regular headphones) to improve concentration. I highly recommend music without words or other ambient tracks for studying. If commercials are distracting, you can try the premium version.
- **Fidget items**
Some students find that engaging their senses through touch improves focus. Items that don't make noise are ideal. Putty, playdough, stress balls, and stretchy strings are some good options. I've found playdough to be especially popular with college students.
- **Balance disc**
Balance discs, also called wobble cushions, can be used on the floor or any chair. Given their size, they are more practical than balance ball desk chairs in dorm rooms or classrooms. Amazon has a wide selection ranging from \$15 to \$40.

➤ **Rescue Time**

[Rescue Time](#) is an Android, iOS, and desktop time tracking app. The premise behind the app is that having constant access to the world through our smartphones is a distraction. Rescue Time helps people take charge of the amount of time spent on devices and how that time is spent. You can also set focus times and daily limits on apps. You can try Rescue Time free for 14 days.

Rescue Time costs \$72 annually or \$9 per month.

➤ **Portable standing desk**

Standing desks have some health benefits as well as support students who find sitting constraining. Look for options that sit on an existing desk or table. A desk with foldable legs and multiple configurations (standing, laying, lap) can also be helpful if you like to change positions frequently. Amazon has several good options for less than \$80.

➤ **Active and passive noise canceling headphones**

Active noise canceling headphones use an electronic process to cancel out unwanted noise by filtering sound waves. You can use them to listen to music, ambient sounds, or simply to block out noise. Active noise cancelling headphones typically range from \$50 - \$500 depending on the brand and quality. One brand, [b-Calm](#), has been designed specifically for people with sensory challenges (i.e. ASD, ADHD, PTSD, etc.). Their basic headphones are \$139 USD.

Passive noise canceling headphones (and ear plugs) work by muffling sound. They are commonly used in industrial settings. Being lower tech, these are significantly cheaper than active noise canceling headphones.

Regular headphones can also be helpful if you are listening to background music or ambient sounds and will not get sidetracked by some unwanted noise.

Note-taking

Note-taking is a critical skill for college students. This can be challenging if you have a mobility disability, sensory disability, reading disability, dyslexia, ADHD, etc. Note-taking tools are useful for both lecture notes and reading notes.

➤ **Microsoft OneNote (free)**

All Briercrest students have a free subscription to Office 365. You can either use the web-based version or the desktop version. To access it, go to <https://www.mybriercrest.ca/>. Click on the Office 365 icon on the right. You will be prompted to enter your mybriercrest email and password.

OneNote is a digital “notebook” with multiple functions. Besides aiding in organization, OneNote has an option for audio-recording while taking notes. In the desktop app (the web version does not have this functionality), the audio recording will sync with your written notes. To use this feature, click Insert, Record Audio. When you are finished recording, on the Playback tab click Audio & Video Settings. Make sure Audio Search is selected. Then click See Playback. When this button is highlighted, click Play. Your written notes will be highlighted as the audio portion plays. You will also see a small play button to the left of your notes. Click on that button to jump to specific places on the audio recording.

➤ **AudioNote**

[AudioNote](#) is an app that runs on Android, iOS, and Windows platforms. It functions similarly to OneNote, but with a less complicated user interface. One unique feature is that your microphone settings are automatically adjusted according to room size and volume level. You can link your notes to audio files. During playback, the notes are highlighted. You can try AudioNote one month for free.

You can purchase the app for \$28.97.

➤ **Livescribe smartpen**

[Livescribe smartpens](#) record lectures as you write notes. Smartpens have a built-in mic and camera. The mic records lectures, while the camera records your notes. If you are a slow writer or have trouble listening and writing, the Livescribe smartpen gives you the option of focusing primarily on listening and only writing down the most important points. To listen to a specific part of a lecture, simply tap that section of your notes. Your written notes and the audio file are synced. Using the Livescribe app, you can upload your written notes and audio files to your computer. This gives you the option of adding to your notes, sharing your notes, searching your notes, and more. For increased functionality, Livescribe notebooks should be purchased.

Livescribe smartpens run between \$128 - \$205 on [Amazon](#).

➤ **Sonocent**

[Sonocent](#) is desktop software that records and transcribes in real time. Each phrase becomes an audio bar. Important phrases/audio bars can be highlighted. The app also gives you the option to take notes on a side bar or upload images/slides for your notes. Recordings can be organized into sections with slides and notes. You can also extract the highlighted portions of the audio for playback. You can try Sonocent for free to test it out (recommended) as this powerful software is pricey.

A one-year license for Sonocent costs \$215. The lifetime license is \$504.

➤ **reMarkable**

If you like taking notes by hand, the [reMarkable tablet](#) may be for you. The tablet gives the experience of paper but has the power of a digital notetaking system. Handwritten notes can be converted to typed notes. The tablet is also compatible with PDF and ePub files. This means that you can easily take notes on ebooks and articles. The tablet is a bit pricey but has lots of features.

The reMarkable 2 costs C\$599 while the reMarkable 1 costs C\$499.

Microphone

➤ **USB omnidirectional mic**

Omnidirectional mics pick up sound from all directions. Using an omnidirectional mic can improve the quality of audio notes, especially if you can't sit close to the speaker. Mics can run from \$30 to over \$100. Here is a [link](#) to the one that I own.



Reading

Audiobooks and eBooks

If you struggle with reading or concentration you may find that e-texts and audiobooks will support your learning. eBooks are digital books with a read aloud function. Most eBook platforms have annotation tools so you can highlight and take notes. An audiobook is simply a recording of a book. Some audiobook platforms also have bookmark and note-taking functions. eBooks are usually less expensive than audiobooks.

eBooks:

➤ **Project Gutenberg (free)**

[Project Gutenberg](#) is a collection of over 60,000 free eBooks in the public domain. Many of the books on this site were published before 1924. If you need to access any classics, this is a good place to start.

➤ **Christian Classics Ethereal Library (free)**

This [library](#) is a collection of classical Christian works including commentaries, biographies, and original works by early Christian writers. The books can either be read online or downloaded. You will need a text-to-speech reader for the read aloud function.

➤ **Libraries (free)**

The [Archibald Library](#) has a collection of eBooks. To search for eBooks, select the E-books on EbscoHost database. You may also be able to access eBooks (and

audiobooks) through your local public library. For example, the [Moose Jaw Library](#) gives members access to both [OverDrive](#) and [Hoopla](#).

➤ Kindle/Google Play/Apple Books/etc.

Amazon, Google, Apple, and other companies have eBooks available for purchase. To access the book, you may need to download an app on one of your devices. Most apps will have a read aloud feature.

Audiobooks:

➤ **LibriVox (free)**

[LibriVox](#) is a collection of audiobooks in the public domain. All of the books are read by volunteers so quality and accent may vary.

➤ **Audible**

[Audible](#) is an Amazon audiobook store. You can subscribe to the service and choose one free book per month or pay full price for the books.

➤ **Libro.fm**

[Libro.fm](#) is similar to Audible. You can subscribe for a monthly membership or purchase books at cost.

➤ **Bookshare**

[Bookshare](#) is an online library of over 800,000 audiobooks for individuals with print disabilities (ex. dyslexia, reading disability, low vision, blindness, physical disability, etc.). You can access as many books as you like for one fee.

Membership costs \$50 USD annually.

➤ **Learning Ally**

[Learning Ally](#) has a library of over 80,000 audiobooks for adult learners. To become a member, you must have documentation of a print disability (ex. dyslexia, reading disability, low vision, blindness, etc.). In addition, the service provides links and resources for managing learning differences.

Membership costs \$99 USD.

Text-to-Speech

Text-to-Speech readers scan digital texts and read them aloud. Voices are computer generated and can vary in quality. In most apps, the user has the option to adjust the speed of the voice.

➤ **Screen Readers for Web Browsers**

You can improve the accessibility of Canvas and other websites by adding a screen reader to your web browser.

- Chrome & Firefox : [Pericles](#) (free) (other options are available as well)
- Safari: [VoiceOver](#) (free)

➤ **Natural Reader (free version)**

[Natural Reader](#) can be used on the web or downloaded to a PC. Text and documents can be uploaded and read aloud or converted to mp3 files (premium feature). The free version has less functionality, though many students have found it adequate for basic needs.

Premium version is \$99.50 USD for software or \$9.99 a month for online version.

➤ **Read&Write (free version)**

[Read&Write](#) is a software toolbar that support students through reading text aloud, defining words, and transcribing speech. It can read pdfs, websites, Word documents, and more. The premium version is free for 30 days. You can download it on a device or PC. The free version (after 30-day trial) only has the text-to-speech feature.

The premium version is \$145 £ for a year.

➤ **Kurzweil 3000**

[Kurzweil 3000](#) is the Mercedes Benz of assistive technology platforms for students with learning disabilities and dyslexia. Kurzweil 3000 has multiple text-to-speech voices, font options, built-in OCR, the ability to read locked PDFs, embedded dictionaries, vocabulary resources, writing organizers, speech-to-text functionality, and more. This is a research-based program that works for students in kindergarten through university. The program comes with lots of tech support from the company. To test it out, you can sign up for a free trial. The final price is not listed on the website.

Cost—expensive (With a discount, US college students pay \$500)

Optical Text Recognition (OCR)

OCR software converts pictures into text that can be read with speech-to-text software. OCR can work with scanned documents, screenshots, and snapshots of documents.

➤ **Microsoft OneNote (free)**

OneNote is packed with hidden features (see note-taking)—one of them is OCR. To use this feature in OneNote, either drag your image/file into OneNote or click Insert, File Printout or Picture. You can also click on Screen Clipping to clip a page from a website. Right click on the image/file and select the Copy Text from _____ (the blank will depend on what you inserted). The copied text will go to your clipboard. You can now insert this in OneNote or another app to be read by a text-to-speech reader. The higher the quality of your image/clip/file, the more accurate the text will be.

- **Microsoft Office Lens (free)**
[Office Lens](#) can be used on a mobile device or PC for enhancing pictures of whiteboards and documents. It converts pictures to PDF, Word, and PowerPoint files. Images can also be saved to OneNote. It's basically a pocket scanner.
- **C-pen**
[C-pen](#) is one example of a pen scanner. The C-pen uses OCR technology to capture printed text. To use it, you pass the scanner over the text and then the pen "reads" the text aloud. The pen also includes built-in dictionaries. Pen scanners can be helpful options when audio-versions of texts are not available. This is often the case when doing research for a paper.
 The C-Pen Reader costs \$330 on [Amazon](#).



Stress Management

Looming due dates, heavy workload, managing relationships. There are a lot of potential stressors in college. Good time management and study skills can reduce stress, but sometimes we need some extra support. These apps are recommended by the Briercrest Counseling Centre.

- **Breathe2Relax (free)**
 Breathe2Relax is available in the Apple Store and Google Play. The app provides instructions for deep breathing exercises which can reduce stress, anger, and anxiety.
- **Smiling Mind (free)**
[Smiling Mind](#) is a meditation app that uses mindfulness to boost calmness, contentment, and clarity. It is available for iOS and Android.
- **Self-Help for Anxiety Management (free)**
 This app helps you understand what causes your anxiety, monitor your anxious thoughts and behaviour, and grow through self-help exercises and reflection. The app is available in both the Apple Store and Google Play.
- **ReachOutWorryTime (free)**
[ReachOutWorryTime](#) is an app to help you manage the time you spend worrying. The app is only available for iOS devices.
- **Calm**
[Calm](#) is a guided meditation app to help reduce stress and increase sleep. Calm is available for iOS and Android. You can try Calm for free.

➤ **Headspace**

[Headspace](#) is an interactive app designed to help you manage anxiety and practice mindfulness. A free trial is available. Headspace is available on iOS and Android devices.



Time Management & Organization

Planners

It may come as a surprise, but according to [a survey in an ADHD magazine](#), individuals with ADHD preferred paper planners over digital planners.

Paper Planners

➤ **Passion Planner**

The [Passion planner](#) is a calendar, goal setting guide, journal, sketchbook, and to-do list all in one. The academic edition begins in August and ends in July, making it ideal for the school year. You can purchase the planner on their website or download and print the planner for free.

➤ **Little More Planners**

Little More Planners are available on [Amazon](#). There are different editions of the calendar depending on your preferences. Each helps with goal setting and tracking your schedule.

Digital Planners

➤ **Semester Calendar (free)**

Every semester, the Academic Resource Centre produces a semester calendar for students. You can access this on Canvas. The calendar is great for having a bird's eye view of the semester.

➤ **Google Calendar/Outlook (free)**

If you prefer digital calendars, Google Calendar or Outlook Calendar (accessed through your myBriercrest email account) are good options. In both, you can create tasks, events, and notifications. Notifications are great if you are in the habit of forgetting things.

➤ **Shovel**

[Shovel](#) is available on the web, Android, and iOS. If you want a planner that helps you track how you spend your time, how long tasks take, and tracks progress towards goals,

then this may be the planner for you. Shovel was designed especially for college students. It takes a bit to get it set up, but once running, it is a powerful tool.

Shovel costs \$23.99 annually.

To-do Apps

Though some planners have to-do functions (Google and Outlook), some students find a separate app helpful. Some apps allow for greater control and organization of lists.

➤ **Todoist (free version)**

[Todoist](#) is a to do list that syncs across all of your devices. You can set tasks, due dates, priority levels, and more. Todoist also allows you to track your progress. You can connect it your Google account for increased functionality. It is available on Google Play or iOS.

The premium version is \$4 a month.

➤ **Any.do (free version)**

[Any.do](#) is similar to Todist but has a “plan my day” feature. It integrates with both Google Calendar and Outlook.

The premium version is \$5.99 £ a month.

Timers & Alarms

We frequently recommend timers and alarms to all students. When motivation is lagging, sometimes the simplest thing to do is set a timer and commit to working for a specified amount of time. Alarms can remind us of tasks—or get us going in the morning.

➤ **Phone Alarm (free)**

Use the alarm/timer feature on your smartphone. This can be used as a timer for focus or an alarm to remind you of where you need to be.

➤ **Kitchen Timer**

If your phone is a distraction, consider using a portable kitchen timer for improving focus. Some digital versions have a countdown feature so you can easily see how much time is left.

➤ **Alarm Clock apps (some free options)**

Some students with ADHD report having a difficult time getting up in the morning. Some easily sleep through their alarms. If this is you, you might want to consider an

alarm clock app. On Google Play or the Apple Store, search for ADHD alarm clock. Some options require you to take a picture or shake your phone before they will shut off.



Writing

Speech-to-text

Speech-to-text tools and apps can be stand alone or built into common programs. These tools allow users to dictate text rather than type it out themselves.

➤ **Google Docs (free)**

Google Docs has a built-in speech-to-text function. To access it, in Google Docs, go to Tools and then select "Voice typing." A microphone will open on the left-side of the screen. For best results, use with a USB mic (or mic and headset combo).

➤ **Microsoft Word (free)**

All Briercrest students have a free subscription to Office 365. You can either use the web-based version on the desktop version. To access it, go to <https://www.mybriercrest.ca/>. Click on the Office 365 icon on the right. You will be prompted to enter you mybriercrest email and password.

The Dictate button is on the Home taskbar for both versions. To record, simply click the button. For best results, use with a USB mic (or mic and headset).

Note: If you have speech challenges, built-in or free speech-to-text tools may not work as well for you. I've tested both Google Docs and Word with no problems. However, they didn't work well for my daughter who has minor speech challenges.

➤ **Dragon Speech Recognition Software**

Dragon is a speech recognition software for use with Android, iOS, or PC. The software can be used to turn your speech into text or to give your computer commands. Dragon will "learn" your voice, increasing the accuracy of transcriptions. If you find that free or built-in speech-to-text options don't work well for you, you may want to consider Dragon.

[Dragon Anywhere](#) (Android/iOS) has a 1-week free trial and is \$14.99 USD per month after that.

[Dragon Home](#) is available for \$150 USD

Writing Process

➤ Graphic organizers

Graphic organizers help students to visually organize information. This can be very helpful in the writing process. Graphic organizers can be drawn, printed, or created with an app. Here are some helpful resources:

- [Frederick Community College](#) has some printable organizers for essay writing. Many are simple enough to draw out instead of print.
- [MindMup](#) is a free mind mapping web program. You can save maps to your Google Drive.
- Sticky notes or index cards can be used to organize ideas. Some students like to write main ideas on the notes or cards and then move them around to create an outline.

➤ Academic Resource Centre

The Academic Resource Centre at Briercrest offers one-on-one writing support to students at any stage in the writing process. There is no charge for this service. In addition, writing guides are available for students on Canvas.

Comprehensive Tools

Comprehensive writing tools have advanced spell check and proofreading abilities, speech-to-text functions and more. These tools are often designed specifically for students with learning disabilities.

➤ Ghotit

[Ghotit](#) was designed for children and adults with dyslexia. Ghotit includes an intelligent spell checker, grammar checkers, word prediction, text-to-speech function, dictionary, and more. One cool feature is that it “learns” as the user inputs data. This results in better word prediction and spell checking. The application also includes a screenshot reader.

An annual license costs \$99 USD.

➤ WordQ

[WordQ 5 Pro](#) is a writing tool that works with Windows and macOS devices. WordQ has features such as word prediction, proofreading, speech feedback, speech-to-text, and research support. A floating toolbar allows student to use the WordQ across desktop applications. You can try out WordQ free for 30-days.

An annual license of WordQ costs \$99. A permanent license costs \$279.

➤ Kurzweil 3000

See full description under Reading. Kurzweil 3000 includes dictionaries, graphic organizers, speech-to-text functions and more.

For questions or more information on services available to students with disabilities at Briercrest, contact [Erin Gordon](#), Director of Student Success.