



The Educators' Guide to Assistive Technology

for
students
with visual
impairments



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Welcome



Every student that walks through the school doors is full of potential. Whether you are a school leader, teacher or a teaching assistant, you know only too well how rewarding and fulfilling it is to be a part of your students' journey in achieving their goals. You will also know how supporting students to reach their potential is not always easy. All students face their own unique challenges to overcome along the way. For students who are blind or partially sighted, there is one central barrier to reading and learning: **accessibility.**

Assistive technology, such as screen magnifiers and screen readers, is here to help remove these barriers and empower students who are blind or partially sighted, so they can read and learn in a way that is accessible for them. In this guide,

we explore some of the fantastic ways assistive technology for Windows computers, laptops and tablets is used to support students who are visually impaired to read, learn and achieve their potential at school and beyond.

In this guide, we explore how students who are blind or partially sighted can:

- ✓ Find the right assistive technology for their level of sight
- ✓ Find and read accessible versions of textbooks on any device
- ✓ Explore, read and interact with websites for research
- ✓ Connect a scanner or camera, to read learning materials in print
- ✓ View and magnify the class whiteboard on their own screen
- ✓ Use their assistive technology on any computer with a USB version
- ✓ Benefit from a complete assistive technology kit for full access to the curriculum
- ✓ Use Microsoft applications to complete classwork and homework
- ✓ Obtain large print, braille, audio or ePub versions of learning material
- ✓ Get help when its needed from a team of assistive technology experts



If you would like to find out more about the assistive technology in this guide, visit YourDolphin.com and discover how assistive technology helps support students who are visually impaired on their journey to becoming independent learners.

1 Adaptable solutions for different levels of vision

Key benefit:

Find the right level of assistive technology to suit each student's needs.

Each student living with sight loss is different. Some students might experience low levels of sight loss and benefit from text being provided in a larger size. Others may experience more severe sight loss and need text read aloud in order to read and learn.

As there is no 'one size fits all' when it comes to sight loss, assistive technology is designed to be flexible, to meet a diverse range of needs. Let's explore some of the options available for students.

Screen Magnification

Screen magnification software enables students with partial sight to view their computer, laptop or tablet screen comfortably.

With screen magnification software, students can:

- ✓ Magnify text up to 64 times.
- ✓ Magnify the whole screen, or part of the screen.
- ✓ Change the screen colours to improve contrast.
- ✓ Choose a large, high-contrast mouse pointer.
- ✓ Use text smoothing, to make text really sharp when magnified.
- ✓ Use touchscreen magnification on the latest Windows devices.
- ✓ Track the text as it is read or typed, so they never lose their place.

Text-to-Speech

If a student has progressive sight loss, or if their level of vision fluctuates throughout the day, they may benefit from text being relayed audibly, in addition to using screen magnification.

Assistive technology products include a choice of natural sounding text-to-speech voices. This basic level of speech enables students to:

- ✓ Choose their favourite voices from the range available.
- ✓ Listen to any document or web page read aloud.
- ✓ Read characters, words, lines, paragraphs or an entire document audibly.
- ✓ Adjust the speed and volume of the reading voice.



Complete Screen Reader

Screen readers are designed to enable students who are blind to use a computer independently.

Students use a screen reader to:

- ✓ Read information which is not visible on the screen, such as descriptions of images.
- ✓ Use a 'virtual cursor' to explore the entire screen with the keyboard.
- ✓ Choose how much information the voice announces.
- ✓ Identify if text is centred, bold, underlined, italic, or a different colour.
- ✓ Jump to items on the screen, such as links, headings, edit areas and check boxes.
- ✓ Connect a braille display, to read information from the screen in braille.



Editions to meet your students' needs

To help tailor the level of support to each student's needs, screen magnification and screen reading programs are available in different editions. This helps make the technology adaptable. It supports students' vision now, and continues to support them if their sight changes over time.

“We use SuperNova in our labs and libraries, and I think the reason why they've chosen it is because it caters to everyone. I can come in as a screen reader user, yet at the same time someone who is partially sighted can use the same software, but they just use the magnification part”.

Ben, University Student

Dolphin magnification and screen reading software is available in four different editions.

SuperNova Magnifier

For students who have mild to moderate sight loss.

SuperNova Magnifier and Speech

For students who also benefit from documents and web pages being read aloud.

SuperNova Magnifier & Screen Reader

For students with moderate sight loss or deteriorating vision.

Dolphin ScreenReader

For students who are blind and will not benefit from screen magnification and those learning or using braille.



Learn more about magnification and screen reading for Windows at: YourDolphin.com/SuperNova

2 Support for Windows applications to complete school work



Key benefit:

Enables students to independently complete their work at school and home.

Screen magnification and screen reading products include support for hundreds of Microsoft programs. This enables students to complete their work to a high standard, create well structured documents, spreadsheets, PowerPoint presentations, and more.

“One of the nice things about SuperNova is that I can have my speech set to read incredibly quickly. So I read at about 700 words a minute, and that really helps for situations where we’re doing some group work, and we have to read a case study.

My sighted friends just kind of skim through it in a few minutes, but in the same time, I will have read the case study word for word. In most situations, I’ll have a more informed opinion of it, because I’ve actually delved into it and I’ve read it all, as opposed to just skimming through it.”

Ben, University student

Here are examples of how screen magnifiers and screen readers help students with visual impairments get the most out of Microsoft Word:

Read a document with text-to-speech:

Students use the text-to-speech voice to read any character, word or line from a document. Or read the entire document with audio at the press of a single key.

Accessible reading modes:

Students can read documents using magnification, or they can load the text into an accessible doc reader. This wraps the text to the next line, so it never goes off the sides of the screen when magnified.

Support with typing:

The text-to-speech voice can read every character and word as it is typed. This makes it really easy to spot mistakes as a student is typing. These can be corrected easily.

Produce documents to high standards:

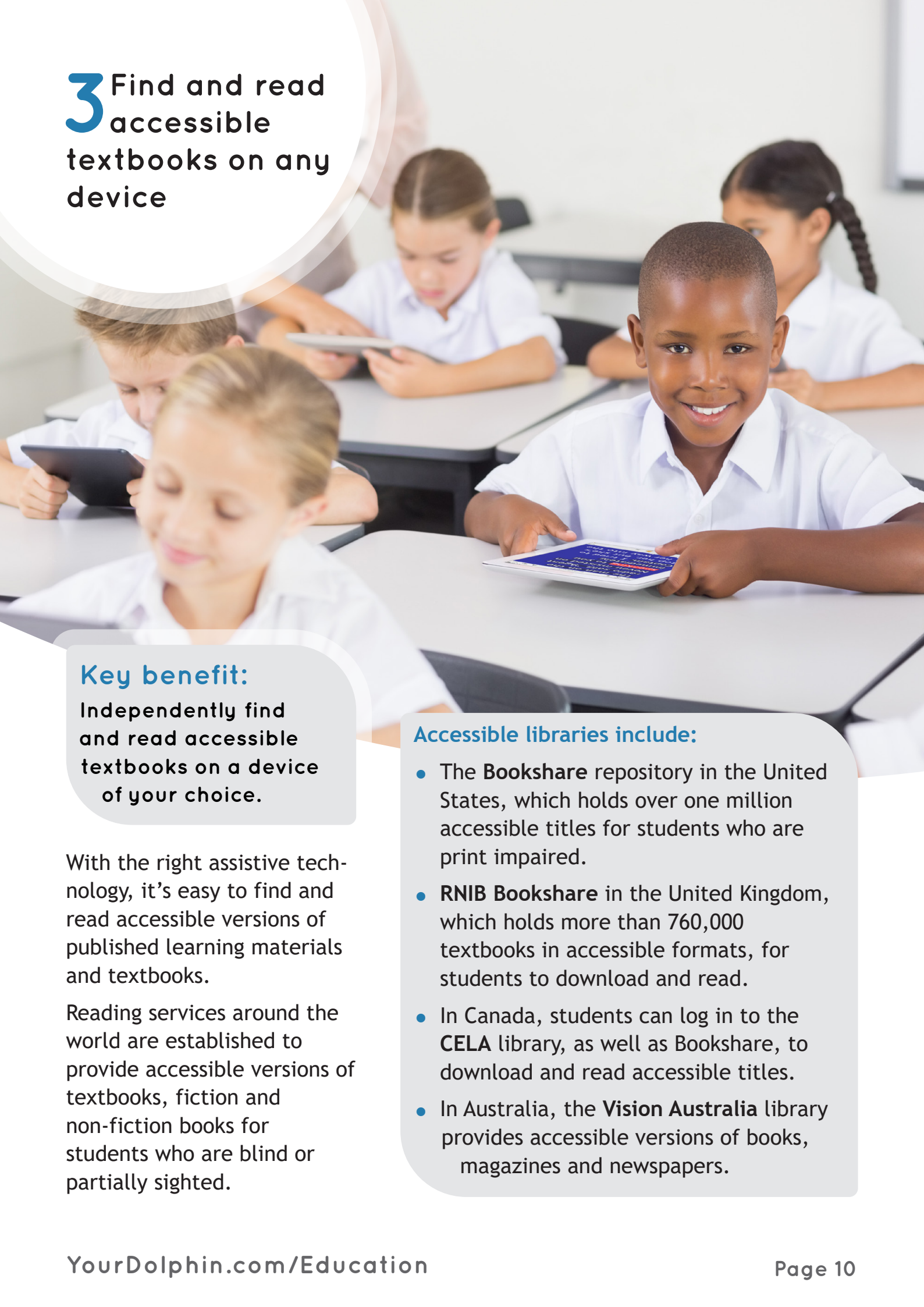
Screen readers can tell students whether text in a document is bold, italic or underlined. The voice can also announce fonts, size, colour and heading level. This helps format documents for a sighted reader.

“I use the speech when I’ve got something long to read, or if my eyes aren’t working as well that day. Then I don’t have to strain my eyes to read it.”

Chelsea, Student.



Learn more about using Microsoft Word with magnification, speech and braille at YourDolphin.com/SuperNova



3 Find and read accessible textbooks on any device

Key benefit:

Independently find and read accessible textbooks on a device of your choice.

With the right assistive technology, it's easy to find and read accessible versions of published learning materials and textbooks.

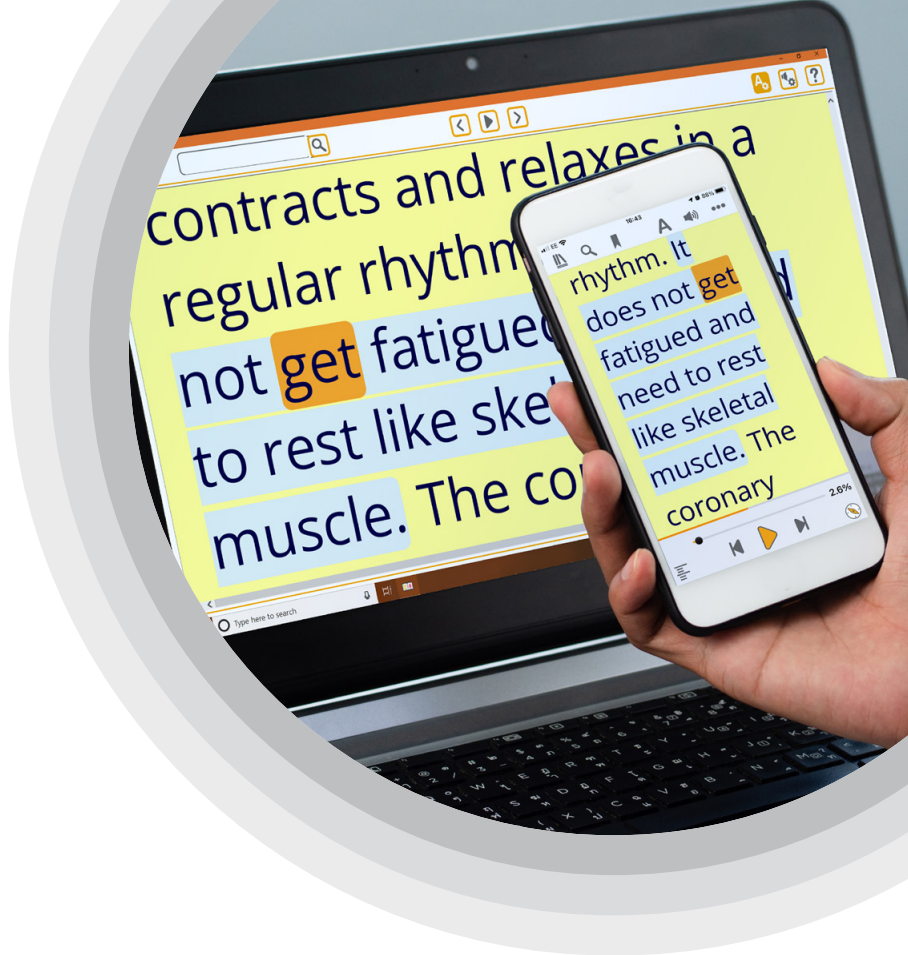
Reading services around the world are established to provide accessible versions of textbooks, fiction and non-fiction books for students who are blind or partially sighted.

Accessible libraries include:

- The **Bookshare** repository in the United States, which holds over one million accessible titles for students who are print impaired.
- **RNIB Bookshare** in the United Kingdom, which holds more than 760,000 textbooks in accessible formats, for students to download and read.
- In Canada, students can log in to the **CELA** library, as well as Bookshare, to download and read accessible titles.
- In Australia, the **Vision Australia** library provides accessible versions of books, magazines and newspapers.

Accessible reading apps such as Dolphin EasyReader, provide direct access to these library services. It enables students to read and learn independently. The EasyReader App is included in Dolphin SuperNova, and is also available as a free download for:

- iPhone and iPad
- Android smart phones and tablets
- Chromebook
- Kindle Fire tablet
- Windows laptops, tablets and PCs



New: EasyReader Premium is now available for educators in the UK, USA and Canada. Students can sign in to the free EasyReader App with a Premium account. This enables students to continue reading their accessible books on any device. They can read anywhere and learn anywhere.



Learn more about finding and reading accessible textbooks at YourDolphin.com/EasyReader

4 Makes websites accessible so students can research and learn online

Key benefit:

Enables students who are blind or partially sighted to use the internet to learn and collaborate online.

The Internet makes it easier than ever for students to research topics online, to collaborate on shared documents and complete work on school's virtual learning environment. However, students who are blind or partially sighted often find it difficult to access information online in the same way as a fully-sighted student.

Here are a few ways assistive technology makes it easier for students with visual impairments to find information online:

Explore websites with magnification:

Screen magnifiers increase the size of text and images on the web. They also include a range of colour schemes to make web pages easier to view, plus a choice of large, high-contrast mouse pointers, to make it easier to select links and text. Touchscreen support means students can also magnify and explore websites on the latest touchscreen Windows devices.

Explore websites with a Screen Reader:

With a screen reader, students who are blind can explore websites without needing to use the mouse. Screen readers include a virtual cursor, which enables students to explore all areas of a website using the arrow keys on their keyboard, or a connected Braille display.

Find information quickly:

Websites include a lot of information, so it's important for students to be able to find relevant information quickly. Assistive technology enables students to use a single key press to jump to any text, link, heading, button, and more. This makes it easy for students who are visually impaired to find the information they need.

Select and copy text:

Selecting and copying text is essential to research online effectively. Students using a screen reader can select and copy text from websites, ready to paste into their notes.

Complete school work online:

With the right assistive technology, students who are visually impaired can send emails using the school email service, submit work through school's virtual learning environment, collaborate with sighted classmates on shared documents in Office 365 and more.

“When I was at primary school, I did a trial with SuperNova. I loved it so much: It was so easy to use and now that I still use it, I'm able to do all my school work on it. I'm able to go on the Internet, I'm able to send emails. I can just do so much more using SuperNova.”

Chelsea, School student



Learn more about exploring websites with magnification, speech and braille YourDolphin.com/SuperNova

5 Connect a scanner or camera to make printed text accessible



Key benefit:

Enables students to read learning resources - even if they are not available in an accessible format.

For times where learning resources aren't available in an electronic format, assistive technology has the answer. Here are a few ways students who are blind or partially sighted can engage with print and image-based resources, with a screen magnifier or screen reader:

Scan and read printed documents

Assistive technology enables students to scan text from an image, PDF or a printed worksheet and display it on their screen. Once the text has been scanned, students can apply their preferred level of magnification and colour settings, then and have it read back to them by the speech.

Connect a camera to magnify and view print

Students who are partially sighted can connect a camera to their device to magnify printed handouts and worksheets on screen. Once a camera is connected, students can print resources with their preferred magnification and colour settings. Students can even use a 'scan' button to have any text from the document read back to them.



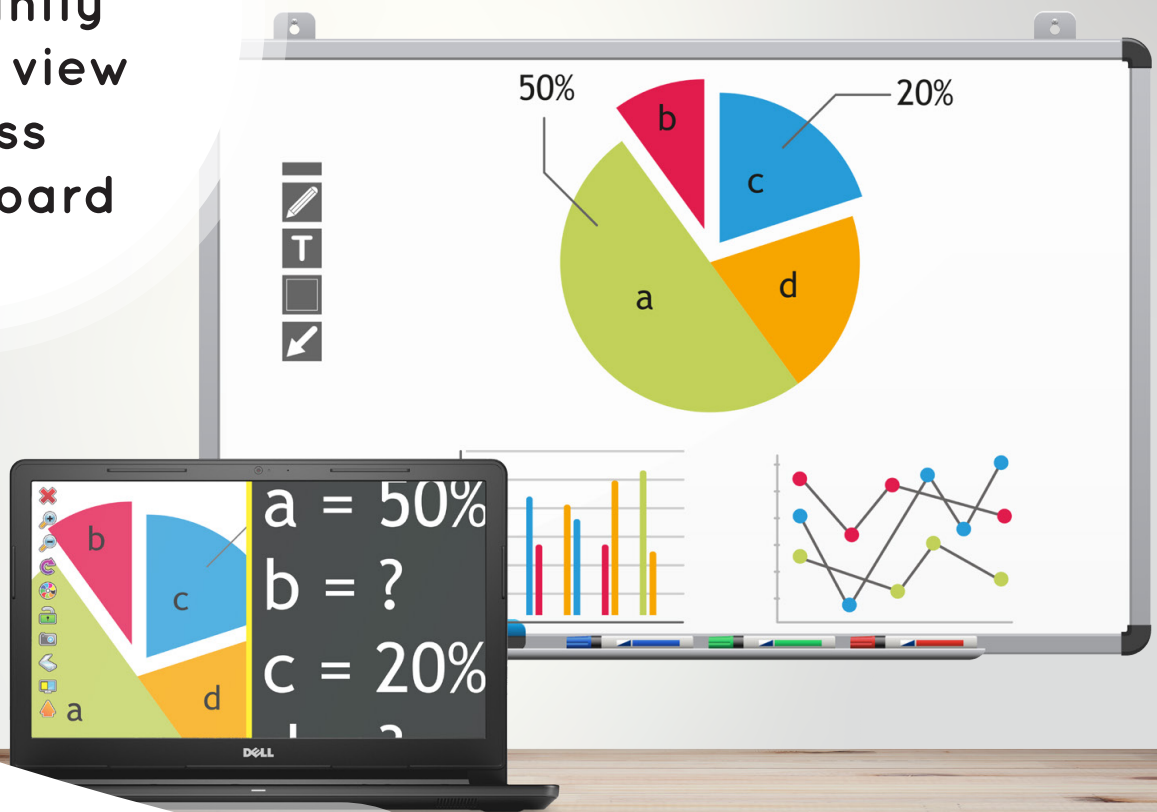
Add notes and annotations to scanned documents

As well as reading printed text aloud, students can use assistive technology to add their own notes to printed resources. This enables students with low vision to complete printed worksheets independently, at the same time as sighted classmates.



Learn more about viewing and reading printed documents at YourDolphin.com/SuperNova

6 Magnify and view the class whiteboard



Key benefit:

Partially sighted students can sit anywhere in class and view the teacher's whiteboard.

Teachers spend a lot of time preparing and presenting resources on the classroom interactive whiteboard. However, students with low vision often find it difficult to view the whiteboard. Many students find they need to sit close to the whiteboard and struggle to see the text.

With the latest screen magnification products, students who are partially sighted can view the teacher's interactive whiteboard on their own laptop or tablet screen. They set the preferred magnification level and colour schemes to view it comfortably. This is with no wires, no cables,

and no cameras - all you need is an internet connection.

Once connected, students with low vision can magnify text from the whiteboard, choose their preferred colours, capture an image to paste into their notes, and even scan and read the text on the whiteboard too.

Dolphin also offers an app to help teachers and students set up in seconds at the start of class. With the **free SuperNova Whiteboard Wizard** app, teachers can create a wireless connection to their whiteboard and set a password. Students can then use their assistive technology to enter the password and connect to the whiteboard screen.



Teachers don't have to worry about security. When a whiteboard is shared with a student, the connection is shared as 'view-only'. So, while a student can view the teacher's whiteboard on their laptop comfortably, they can't make any changes to the content on screen, or alter what the rest of the class sees on the screen.



Learn more about magnifying the Interactive Whiteboard at info.YourDolphin.com/Whiteboard-Wizard

7 Instant accessibility on any computer, at school and home

Key benefit:

Students who are visually impaired can use any Windows computer, at school or at home, even if the computer doesn't have assistive technology installed.

As this guide has shown, assistive technology offers fantastic benefits that enable students who are blind or partially sighted to become independent learners. However, in order to access and use a computer or laptop, it's often thought the assistive technology needs to be installed on the device. This isn't the case!

The latest screen magnifiers and screen readers are available in USB versions. This means a student can insert a specially-adapted USB

memory stick into any Windows 10 device at school and instantly load their preferred combination of magnification, speech and braille. The great thing about the USB option is that it requires no installation. This means students have the flexibility to access and use any Windows device at school and home.

If a student uses the product in this 'zero-install' mode, there are a few features which are not available. This includes the Scan and Read function and the ability to use the touch-screen. However, if the student uses the device regularly, or if the student is using a Windows 11 device, a small driver can be installed to provide complete access.

USB versions provide an extremely flexible option for students who need to access multiple Windows devices. It also comes with a full licence to install on the student's personal device. So students really do get the best of both worlds.

"I use SuperNova USB on any computer that doesn't have a SuperNova licence already installed on it".

Charlotte, University student



Learn more about assistive technology on a portable USB at YourDolphin.com/SuperNova-USB

8 A complete kit for students with low vision



Key benefit:

Save thousands and provide students with the benefits of multiple assistive technology products, in one complete solution.

As well as being available as software, screen magnification and screen reading products are also available as complete packages.

These packages mean students benefit from assistive technology software, and also have access to the latest Microsoft devices, in a complete kit that fits into a backpack.

The SuperNova Connect and Learn package is designed specifically for students who have low vision. It provides complete access to learning resources. The package includes:

| Computer equipment | Assistive software | Accessories |
|--|---|--|
| <p>A 12-inch Microsoft Surface Pro tablet.</p> <p>A wireless, large-print keyboard.</p> <p>A wireless mouse.</p> | <p>Dolphin SuperNova.</p> <p>Dolphin EasyReader accessible reading app.</p> <p>3-year software maintenance agreement (SMA).</p> | <p>A lightweight, foldable tablet stand.</p> <p>Laptop backpack.</p> |

This combination of equipment, assistive technology and computing accessories enables students with low vision to benefit from five different assistive technology products in one:

Digital video magnifier

Use the built-in camera to view classroom handouts and worksheets. These resources can be viewed with the students' preferred magnification and colours on screen.

Accessible tablet

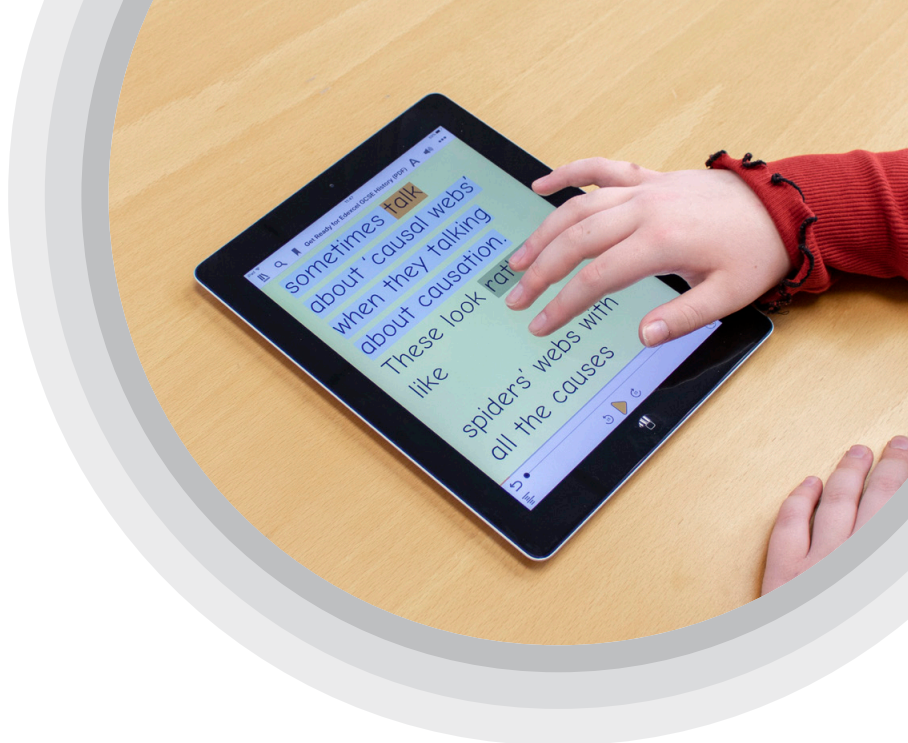
Explore and read web pages and documents with intuitive touchscreen magnification.

Windows laptop

A wireless keyboard and mouse makes the package ideal for typing documents and completing assignments.

Whiteboard magnifier

No matter where a student sits in class, they can use SuperNova to connect to and view the class interactive whiteboard.



Accessible book reader

Students can browse, download and read accessible textbooks using the EasyReader app, included with the SuperNova Connect & Learn package.

“All the students love SuperNova Connect & Learn. It is providing them with access to the curriculum and helps them develop the skills they need to move on to higher education and the workplace.”

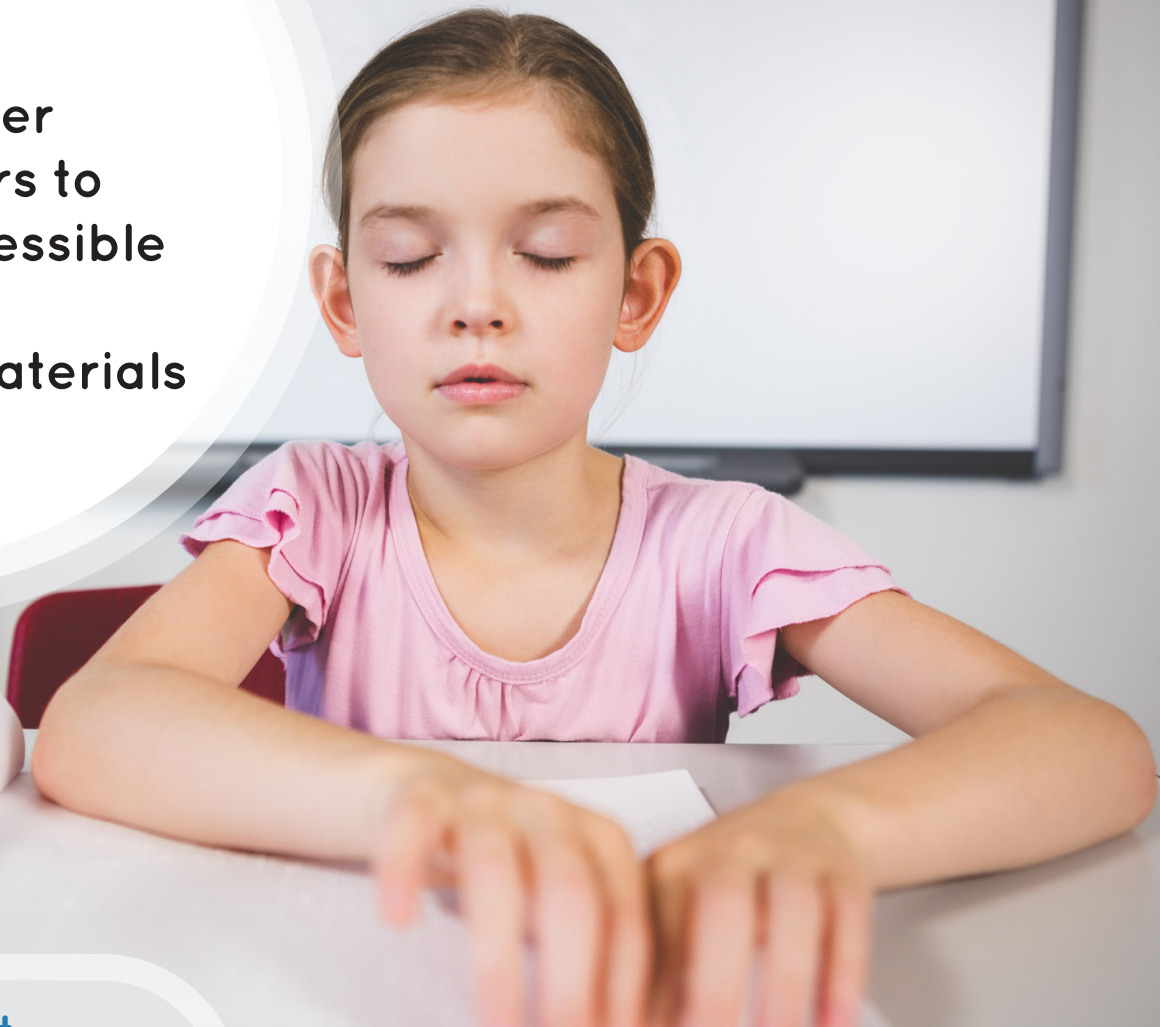
C Thomas, Specialist teacher in the UK for children and young people who are visually impaired



Discover a complete package for students with low vision at

YourDolphin.com/Connect-and-Learn

9 Empower teachers to create accessible versions of learning materials



Key benefit

Ensures teachers can provide accessible learning material in a timely manner, with no expertise needed.

If students need an accessible hard copy or electronic version of their learning material, assistive technology can help.

Conversion tools are designed to make it easy for teachers to create accessible versions of learning material for students who are visually impaired. This overview details the four main types of alternative format:

Large print

Converting to large print means text can be printed in A4 using your students' preferred text size and font. Large print conversions also keep the page numbers the same as the original document, which makes it easy for students to read alongside their sighted classmates.

Braille

Braille is a tactile reading system, designed for people who are blind. Reading in braille has been linked to higher literacy levels and there are lots of reasons students who are blind may prefer it to audio. If you have students who would like to read hard copy braille, it is worth investing in a special printer - called a braille embosser - so your team can emboss braille quickly and easily.

Audio

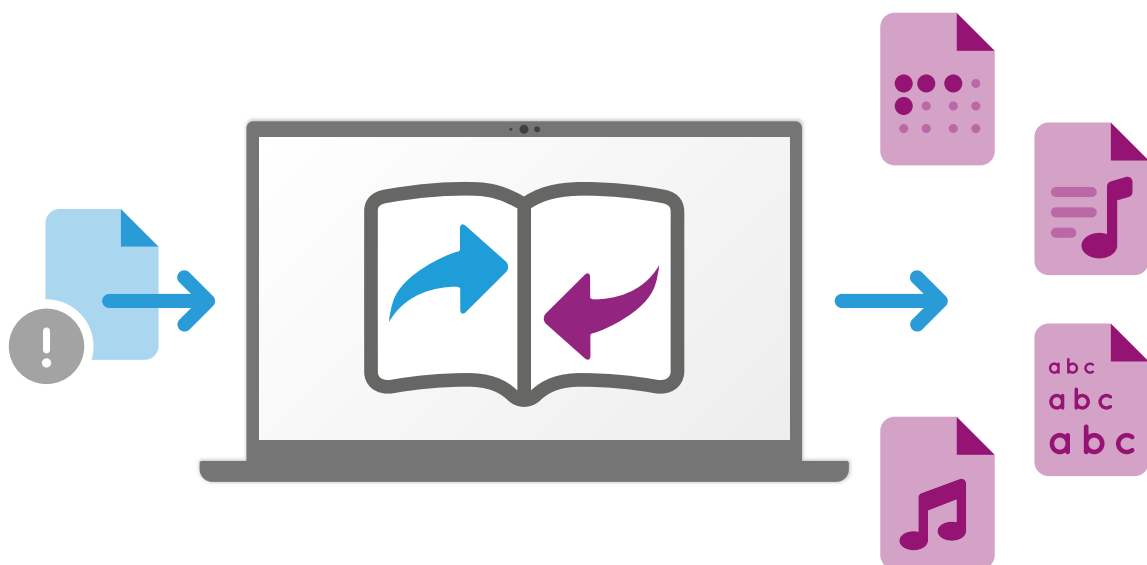
Audio formats are created using synthetic, yet natural-sounding voices to read text. Audio format documents can be shared with students to read on their computer, smart phone or tablet. It is ideal to help them read in class, at home and while travelling.

ePub

ePub is a digital book format, which can be opened on a number of different devices including computers, smart phones and tablets with EasyReader. Text converted into ePub retains the heading structure from the original document. This makes it easier for people who are blind or partially sighted to navigate to different sections in a document, or to search for particular words or phrases.

Producing alternative format versions of learning material is much easier than you might think. Products such as Dolphin **EasyConverter Express** enable teachers to open Word documents and convert them into large print, braille, audio or a digital book format in just three clicks.

You don't need to be an expert in braille or any of the other formats to produce documents accessible to your students with visual impairments.



Find out how your team can create accessible documents at

YourDolphin.com/EasyConverter-Express

10 Help and support when you need it. From assistive technology experts



Key benefit:

Get the most from your assistive technology products with help and support when you need it, from a knowledgeable team.

technology during their own education and succeed in their careers. So, if you have a query about how to get the most out of using assistive technology with your students. Or if you are experiencing any kind of technical issue, you can be assured that our knowledgeable team is here to help.

While assistive technology helps enable students who are blind or partially sighted to become successful, independent learners, there will be times when help and support is needed.

It's reassuring to know that the assistive technology available to students and teachers is backed up by customer support services, to ensure your students get the best possible experience.

At Dolphin, the product support team includes people who are blind or partially sighted themselves. They benefited from using assistive

“We’ve used SuperNova long before I started... The feedback we get from students, families and the teachers that work with them is that they like it. That it works and its robust... The support we get from Dolphin and the Support Team is excellent. They’re on the end of the phone, on the end of an email, but also your website is very informative. We can get advice on magnification, on speech, and on driving braille displays. So if you have any problem, it’s fixed very quickly”

John, Sensory support team leader

Find out more

In this guide, we explored ten ways assistive technology empowers students who are blind or partially sighted to become independent learners. We covered many of the benefits of assistive technology, though we've only really scratched the surface of what's possible for your students'.

If you are interested to find out more about the benefits of assistive technology for your students:

Visit the Dolphin website

Discover a range of solutions to support students with sight loss at YourDolphin.com

Book a free online demonstration

Explore assistive technology in action, with a live demo with a Dolphin assistive technology expert. Book your session at YourDolphin.com/online-demo

Register for a free webinar

For an introduction to assistive technology, we hold regular webinars for teachers, SENCOs and student support staff. View the calendar and book your place at YourDolphin.com/webinars

Try it yourself

Download a free 30-day trial of screen magnification and screen reading software from YourDolphin.com/SuperNova

About Dolphin

Dolphin Computer Access develops assistive technology for people who are visually impaired.

We develop software that supports users in education, employment and at home, to improve accessibility and independence in all stages of life.

Dolphin software includes:

SuperNova:

Screen magnification and screen reading you can rely on. SuperNova enables people who are blind or partially sighted to succeed in education, at home and in the workplace.

YourDolphin.com/SuperNova

GuideConnect:

User-friendly tech for people with sight loss. GuideConnect enables people with sight loss to stay independent, connected and entertained at home.

YourDolphin.com/GuideConnect

EasyReader:

Open a world of accessible books. EasyReader is an accessible reading app, providing direct access to the world's largest collection of accessible libraries and newspaper services. Available for iOS, Android, Kindle Fire and Windows devices, EasyReader is ideal for people with visual impairments, as well as a range of neurodiverse conditions such as dyslexia.

YourDolphin.com/EasyReader

EasyConverter Express:

Convert Microsoft Word documents into a range of accessible formats, including large print and Braille.

YourDolphin.com/EasyConverter-Express

Follow with us on social:

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Facebook: @DolphinComputerAccess

LinkedIn: @dolphin-computer-access

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Find out more about Dolphin Computer Access and assistive technology for education at

YourDolphin.com