

ACADEMIA PUBLICATIONS



Reaching all learners with iPad

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Chapter 1

Introduction

This resource is the outcome of a series of four Accessibility webinars designed and hosted by Academia.

- Supporting Pupils with a Learning Delay
- Supporting Pupils with Autistic Spectrum Condition
- Supporting Pupils with Dyslexia
- Supporting Pupils with Attention Deficit Disorder

The purpose of this book is to raise awareness of the many ways in which Apple technologies support the needs of all learners regardless of difficulty or disability. It is intended to be a reference for educators in all institutions.

Introduction

Accessibility features are not solely for users with additional or special needs. “Accessibility” is not to be confused with “disability”. Accessibility features are useful for everyone. For some users with a physical difficulty the features will be *valuable*. For some users the features will be *vital* for their engagement.

A disability, based on the definition from the [Equality Act 2010](#) is “a physical or mental impairment that has a ‘substantial’ and ‘long-term’ negative effect on your ability to do normal daily activities.”

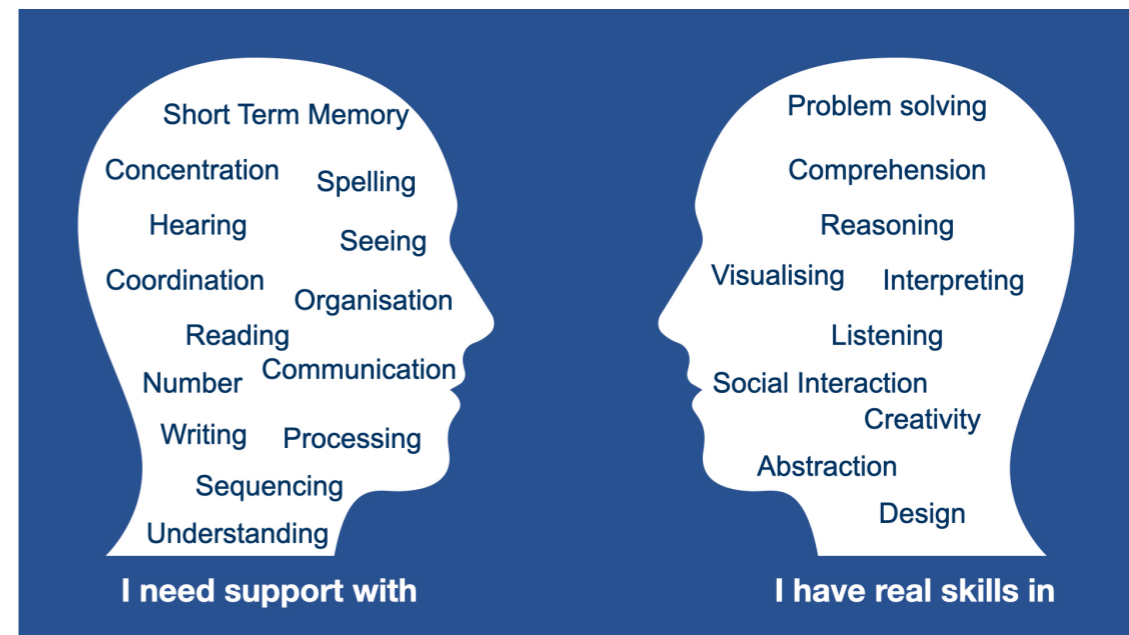
For example, having colour vision deficiency (colour blindness) is not a disability. Dyslexia is not a disability. It is a condition due to a physical difference in the phonological module in the brain.

Thankfully, many conditions are far better understood now and the advances in understanding are reflected in the way in which they are now referred. “Autism” seemed to refer to a specific single point until extensive research and understanding led to it becoming “Autistic Spectrum Disorder” and most recently it is now referred to as “Autistic Spectrum Condition.”

Equally, Dyslexia and ADD are referred to as conditions, not disorders. It is commonly accepted that they have an associated spectrum, from moderate to severe.

Technology will only be effective if it is able to adapt to - and meet the need of - all users at any point on any spectrum.

Technology has the potential to develop and strengthen understanding of core skills in the curriculum. It can also help to develop interpersonal skills and can also enhance skills for life.



For the purpose of this book we have defined an “Accessibility” feature as something that provides “the ability to access, process, organise and present information.”

Chapter 2

Reaching all learners

Reaching all learners

Everyone has needs. Some needs are constant and some needs change over time. It is vital that technology adapts and supports changing need - whether physical, auditory, visual or cognitive, and is able to remove barriers to learning.

For some pupils, their additional need will be identified and provided for by the school. In England, Scotland, Wales, Northern Ireland and Ireland the proportion of learners across all key stages ranges from 2.4% to 5.2%. This proportion, combined with the number of pupils with additional SEN is rising year on year.

Facts

In schools there are approximately [1.3 million pupils](#) in education with some form of Special Education Need. This is approximately 14% of pupils in schools.

Approximately	Approximately	Approximately	There are
3%	10%	1 in 100	3X
of pupils have an EHCP	of pupils have dyslexia	pupils have some form of autism	as many boys identified with autism than girls

Of the 14% of pupils recognised with SEN, over 75% exhibit a degree of dyslexia. The most common type of need is Speech, Language and Communication.

Educators will also be aware that there are pupils who do not have a formal diagnosis and may not even be aware of a change in personal need. Some pupils will be aware of their need and will have developed masking strategies. Accessibility features are designed for all users.

Differing Needs

Statement	Additional SEN	No recognised need
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Accessibility

Accessibility features in iOS and iPadOS

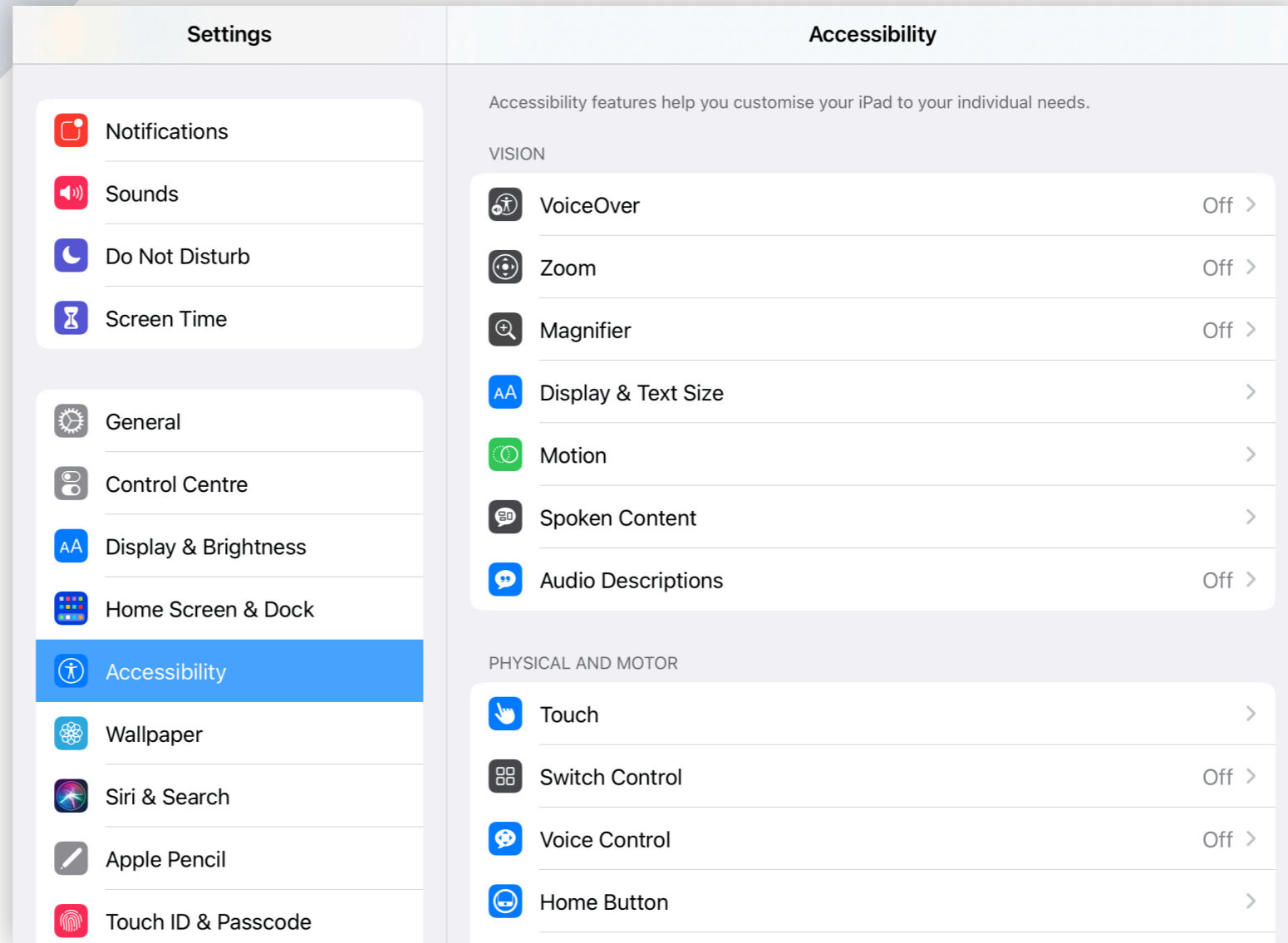
How to:

Go to “Settings”...

then tap on “Accessibility”.

Features are organised into sections for:

- Vision
- Hearing
- Physical
- General need



Accessibility features in macOS

How to:

Click on the Apple icon in the top left-hand corner of the screen.

In the list that appears, click on “System Preferences”.

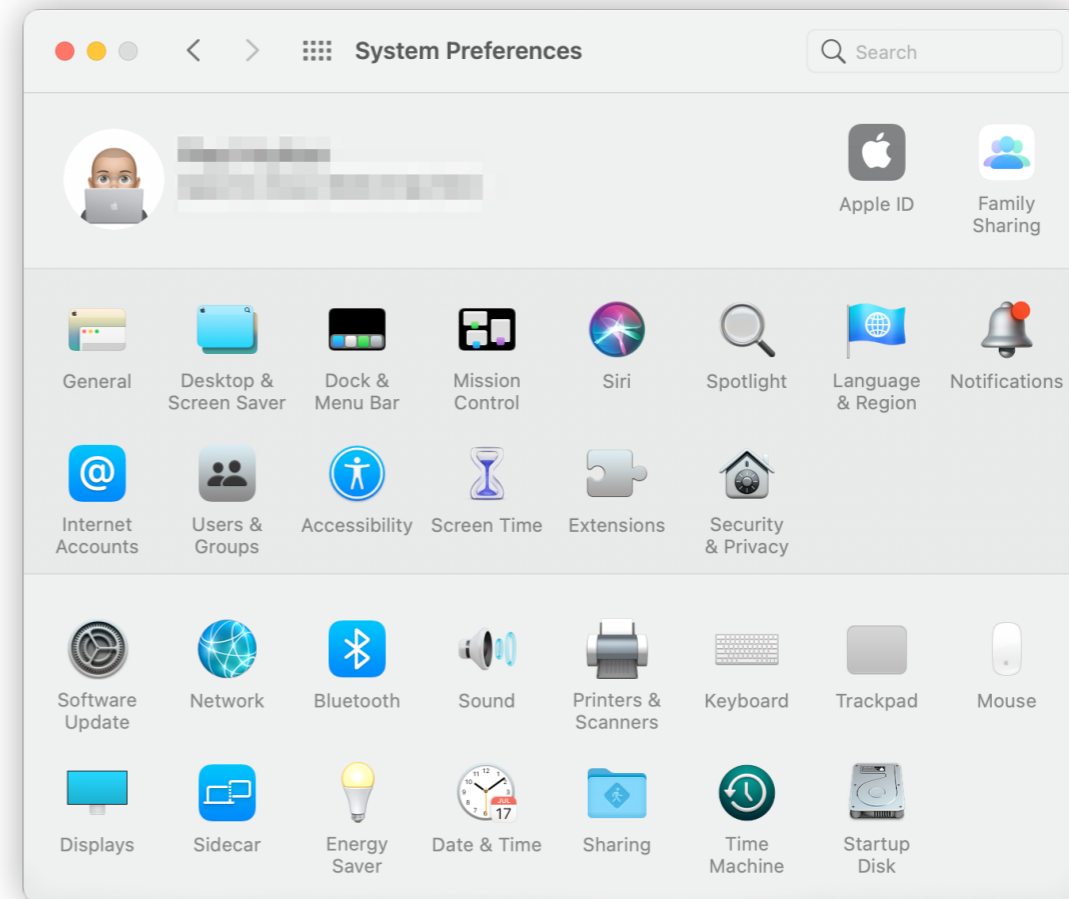
In the dialogue window click on “Accessibility”.

Features are organised into sections for:

- Vision
- Physical
- Hearing
- General need

In this book we will highlight a few features that are useful to all users. For a full description of all the Accessibility features, go to:

<https://www.apple.com/uk/accessibility/>



Display and Text Size

The size of text on screen can be easily altered.

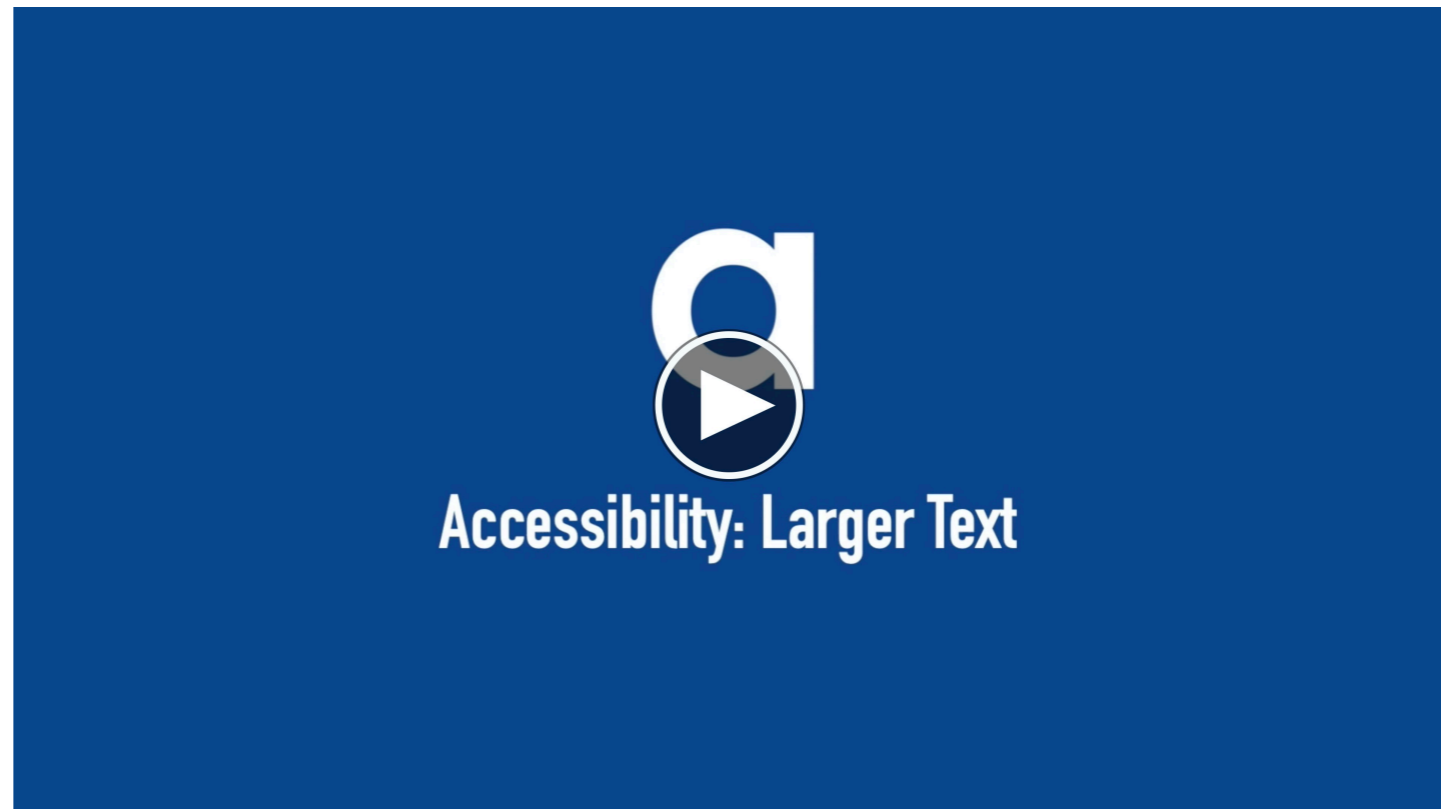
How to:

Go to “Settings”... “Accessibility”...

In the “Vision” section on the right-hand side, tap on “Display and Text Size” and enable “Larger Text”.

Apps that have been designed with Dynamic Type will also adapt the size of text to suit what works best for a user. Enabling this provides a much wider range of text sizes on screen and is ideal for users with low vision that may need text on screen enlarged to a greater extent.

These changes will not necessarily happen in every single app, but will come into effect where dynamic text is supported. For more information [click here](#).



Zoom

Zoom enables a user to zoom in on a specific part of the screen.

How to:

Go to “Settings” ... “Accessibility”...

In the “Vision” section on the right-hand side, tap on “Zoom” and enable “Zoom”.

To Zoom in on a specific part of the screen double tap with three fingers to bring up a zoom window. Use the bar to navigate round the screen and access information more easily.

Double tap on the screen with three fingers to end.



Magnification

Magnification uses the camera on iPad or on iPhone for viewing information or items that are not on screen. This might be a text book; information sheet; or detail on a physical object such as a serial number; or a natural feature when outside on a walk or a trip.

How to:

Go to “Settings” ... “Accessibility” ...

In the “Vision” section on the right-hand side, tap on “Magnifier” and enable “Magnifier”.

In iPadOS a new shortcut will appear on your device screen.

Tap on the app to open it and activate the camera as a magnifier. The level of Magnification can be adjusted up to 500%.

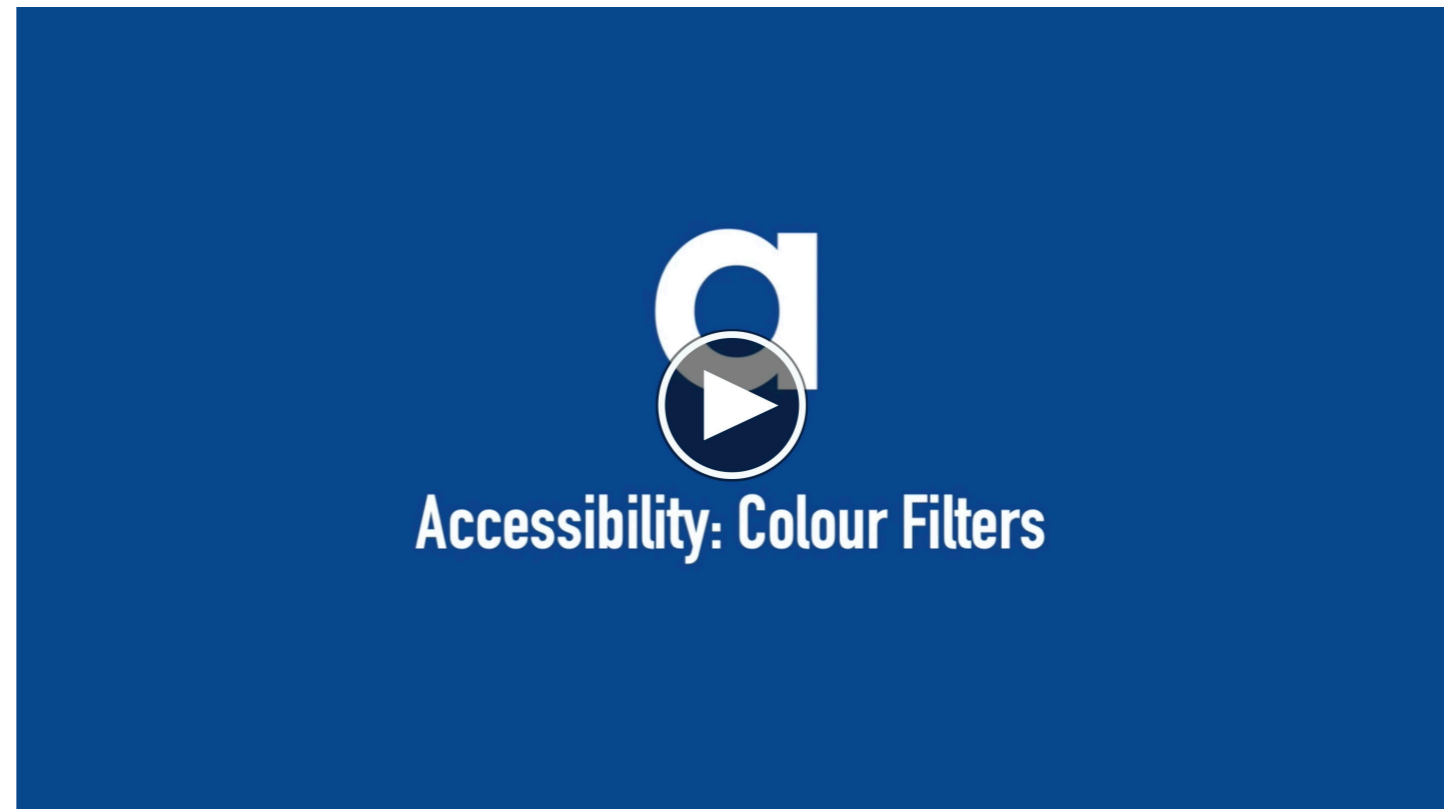


Colour Filters

Colour overlays are used to reduce eye strain; improve clarity and readability; reduce anxiety. They can come in the form of physical overlays and coloured lenses in glasses.

Coloured reading overlays can help people with dyslexia with their reading and visual perception. They are laid on top of published material and can make words on the page seem clearer and prevent them from “jumping around”. They can also reduce the perception of “rivers of white” flowing between words in a block of text.

They can also be beneficial for users with a recognised condition such as colour vision deficiency or a visual stress including [Irlen Syndrome](#).



Colour Filters

How to:

Go to “Settings”... “Accessibility”...

In the “Vision” section on the right-hand side, tap on “Display and Text Size”, scroll down to “Colour Filters” and enable the feature.

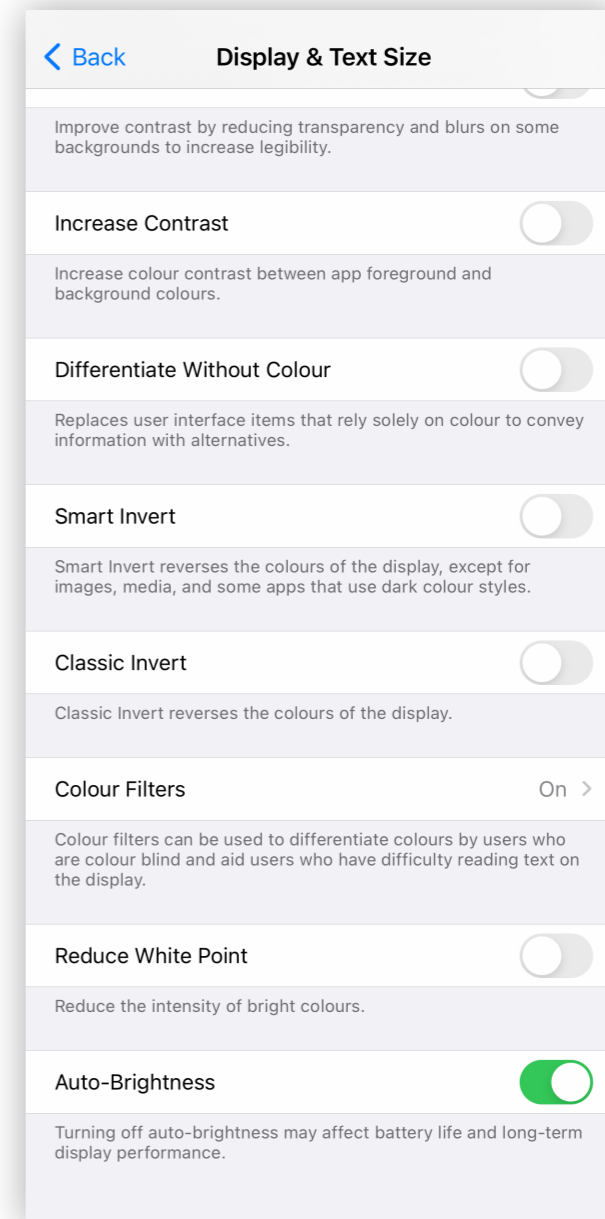
There is a greyscale option which may be useful for users who find it more difficult to process the wide amount of information when viewing a device with a full colour range.

There are then three pre-set filters for users with a recognised colour vision deficiency - Protanopia, Deuteranopia and Tritanopia.

The two sliders at the bottom of the screen allow a user to select the exact intensity (strength) and hue of colours on screen to suit their personal preferences.

Some users have commented that having a slight tint to the screen is more restful on their eyes, especially if they are spending extended periods of time accessing information on screen.

Note that this coloured overlay is only on the device and will not be present if the screen is mirrored using Airplay or connected to a screen or projector.




Reader View

Reader View is a feature built into Safari, Apple's browser.

Reader View removes distracting content such as adverts and menus from web pages and allows a user to focus on information on a specific web page.

To enable it, go to a specific web page, not a web site. For example the feature will not work on [news.bbc.co.uk](https://www.bbc.co.uk/news) but it will work on an individual news story e.g. <https://www.bbc.co.uk/news/science-environment-56542408>

How to:

 Tap on the "AA" icon to the left of the address bar, then tap on "Show Reader View".

All distracting and injected content will be removed.

Reader View also allows a user to personalise their online reading by altering the font and size and change the background colour. Some users find it easier to read lighter text against a darker background. Tap on the AA icon again to access the settings.

Pinch and zoom can also be used in Safari for easier access to information.



Spoken Content

Users may find it easier to have content on screen spoken to them. This could be information on a web site or in a document.

How to:

Go to “Settings”... “Accessibility”.

In the “Vision” section go to “Spoken Content”... and enable “Speak Selection.”

In this section there are also a range of voices available for download which can be used for further personalisation. Enhanced versions are more accurate.

In this section there is also a range of TTS (Text To Speech) voices available for download which can be used for further personalisation. Enhanced versions are more accurate. Of particular note for English (US) is Alex. The American voice has very natural intonation and inflexion and includes pausing, breathing and accurate pronunciation.



Dictation

Students can use built in dictation to convert speech to text. This works in any app where the keyboard may conventionally be used to enter text. The microphone button beside the space bar enables voice input.

Dictation does more than listen to individual words. Dictation interprets voice input and will self-adjust to ensure the whole sentence makes sense.

Dictation can be used to enable access to information in many apps. For example, a search term can be dictated into Safari.

Some people are able to articulate their thoughts and being able to simply dictate their messages, emails or any text content is more enabling than having to mechanically write.

For some users it is the ability to get their ideas down quickly- either as an audio recording, or as speech converted to text which preserves their ideas in a short space of time.

For some users being able to highlight and hear a single word or a block of text rather than have to read it ensures they can check aurally for comprehension, have the opportunity to engage and are able to stay focused and on task.



Accessibility: Dictation

Guided Access

Guided access enables an individual iPad to be restricted into a single app.

This is useful for teachers who would like to set up devices and know that a learner cannot leave the app and can stay focused on desired learning.

Access is enabled and disabled using a passcode created by the teacher.



Guided Access

How to:

Go to “Settings”... “Accessibility”...

Scroll all the way to the final “General” section.

Enable Guided Access on the right-hand side.

Guided Access can be used straight away. There are also options here to change passcode and set up time limits and sound notifications.

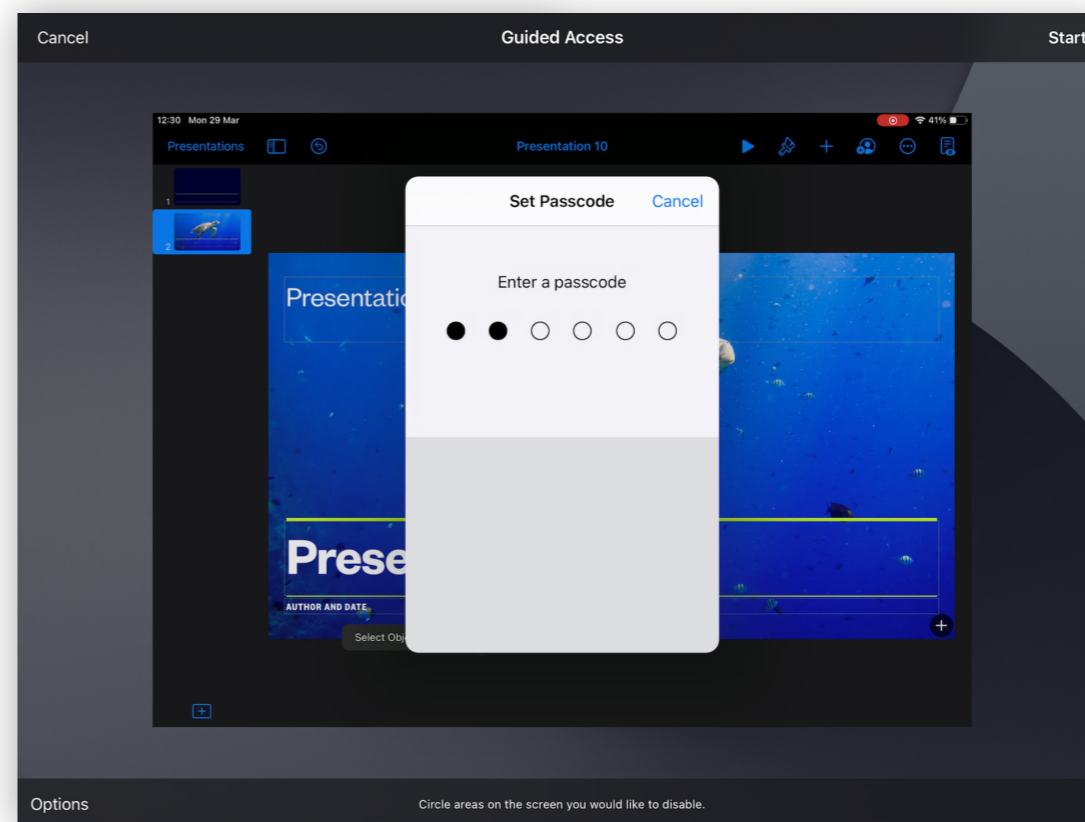
To use Guided Access, open the required app. Then simply triple click the Home Button, or triple click the Power Button at the top if the iPad does not have a Home Button.

When prompted, enter a passcode which will be used to enable and then end Guided Access.

At this stage it is also possible to draw over circle areas of the screen which can be disabled. For example, a teacher may simply want learners to add slides to organise their thinking in Keynote and not want them to access the formatting options. Simply circle areas on the screen and access to them will be disabled when Guided Access starts.

Click on “Start” and Guided Access will be enabled. It will remain in place until the teacher triple clicks the Home Button or Power Button, types in the code and ends the session.

Note that in an education context, a teacher using Apple Classroom to manage iPad in class can lock pupil devices into a single app in a similar manner.



Support

Strategies for Support

- Avoid distractions - visual and auditory
- Plan for change - inform pupils well in advance of action
- Burst approach to learning in small sections using visual/auditory timers
- Ensure consistency/routine using visual timetables for reassurance
- Encourage self-help and ownership of behaviour

Further Support: Organisations and Sites

Vision

Irlen Foundation: <https://www.irlenuk.com/>

RNIB: <https://www.rnib.org.uk/>

Hearing

British Deaf Association: <https://bda.org.uk/>

Cognitive

British Dyslexia Association: <https://www.bdadyslexia.org.uk/>

National Autistic Society: <https://www.autism.org.uk/>

ADHD Foundation: <https://www.adhdfoundation.org.uk/>

<https://www.theconfidentteacher.com/category/closing-the-gap/>

<https://www.enherts-tr.nhs.uk/services/adhd-add/strategies/>

https://www.beaconschoolsupport.co.uk/newsletters/adhd_strategies

Further Support: Apple

Apple Teacher

Apple Teacher is a free online programme to raise awareness of the potential of Apple technologies to enhance learning and teaching. For more information go to: appleteacher.apple.com.

Apple Books

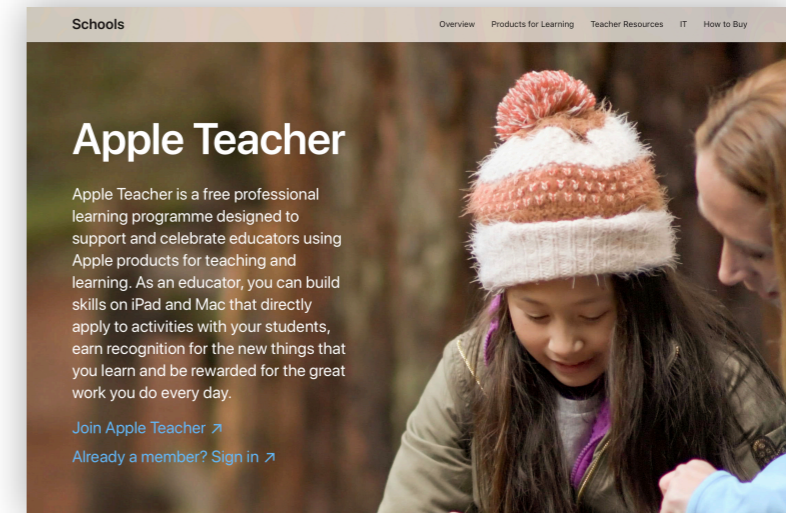
In the Apple Books app, educators can download inspirational books written by educators for educators.

Search for the “Everyone Can Create” series of books, designed to help educators at all stages in education to develop knowledge and confidence using a range of creative Apple apps in the classroom:

- [Everyone Can Create Photo](#)
- [Everyone Can Create Video](#)
- [Everyone Can Create Music](#)
- [Everyone Can Create Drawing](#)

Search for the following books in the Leadership series:

- [Elements of Leadership](#)
- [Innovation in Schools](#)
- [Elements of Learning](#)
- [Research for Educators](#)



Regional Training Centres

RTCs are a community of educators who provide training and professional development. For more information go to <https://www.rtceducationevents.com>.

Further Support: Academia

Vision and Plan

Academia has a proven record of supporting over 10,000 educational settings; schools, colleges and universities. Through Academia, Apple Professional Learning Specialists can lead strategic planning sessions with leadership teams to help them to realise their vision for transforming teaching and learning with technologies and planning for change. Academia can also share model examples where Apple technologies have had real impact in Apple Distinguished Schools.

Events

Academia runs regular events online and in-person. These are very popular with educators as a forum for sharing good practice and exploring how technology enhances teaching and learning. To find out more go to: <https://academia.co.uk/latest-events/>.

Investing in Technologies

Academia can discuss many options available to educational settings to make robust plans for investing in technologies, from wired and wireless infrastructure, cloud services, mobile device management, ecosystems, devices and professional development for educators.

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