



# CHILD DISABILITY PARENT EDUCATION

## UNDERSTANDING ACCESSIBILITY

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# What is accessibility?

The concept (Accessibility) focuses on enabling access for people with disabilities, special needs, or enabling access to entities through the use of assistive technology;

Products or services designed to meet these regulations are often termed Easy Access or Accessible.

However, research and development in accessibility brings benefits to everyone, making everyday mediums accessible to all people (whether they have a disability or not).

# The major categories of disability types are

- **Visual:** Blindness, low vision, colour-blindness
- **Hearing:** Deafness and hard-of-hearing
- **Motor:** Inability to use a mouse, slow response time, limited fine motor control
- **Cognitive:** Learning disabilities, distractibility, inability to remember or focus on large amounts of information



# Why do we need to make mediums accessible?

- 1) It's the right thing to do
- 2) It promotes and encourages equal opportunity and unrestricted access
- 3) It's the law



# The History - The Disability Rights Movement

The Disability Rights Movement is a global movement for equal opportunities and rights for people across the disability spectrum. The Disability Rights Movement started in the 1960's in the United States; encouraged by the civil rights movement.



# The History - UK Web Accessibility Law

The UK has had various anti-discrimination laws over the years. The Disability Discrimination Act 1995 was a step towards a concrete UK web accessibility law, but it was not explicit in the inclusion of websites as the internet was still in its early days. Since then, the different discrimination laws have been consolidated, simplified, and strengthened through the Equality Act of 2010.



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# The History - The Equality Act 2010 (EQA)

The Equality Act of 2010 provides legal protection for people against discrimination in the workplace and wider society. It prohibits businesses from excluding anyone from using their services because of a disability.

The EQA was created to harmonize UK discrimination law by both uniting and reiterating existing discrimination legislation.



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# The History - The Equality Act 2010 (EQA)

As mentioned before, the Disability Discrimination Act 1995 was the previous legislation that ensured accessibility. While the DDA did not mention the internet specifically, it did include “access to and use of information services” amongst the examples of services which had to be accessible to people with disabilities.

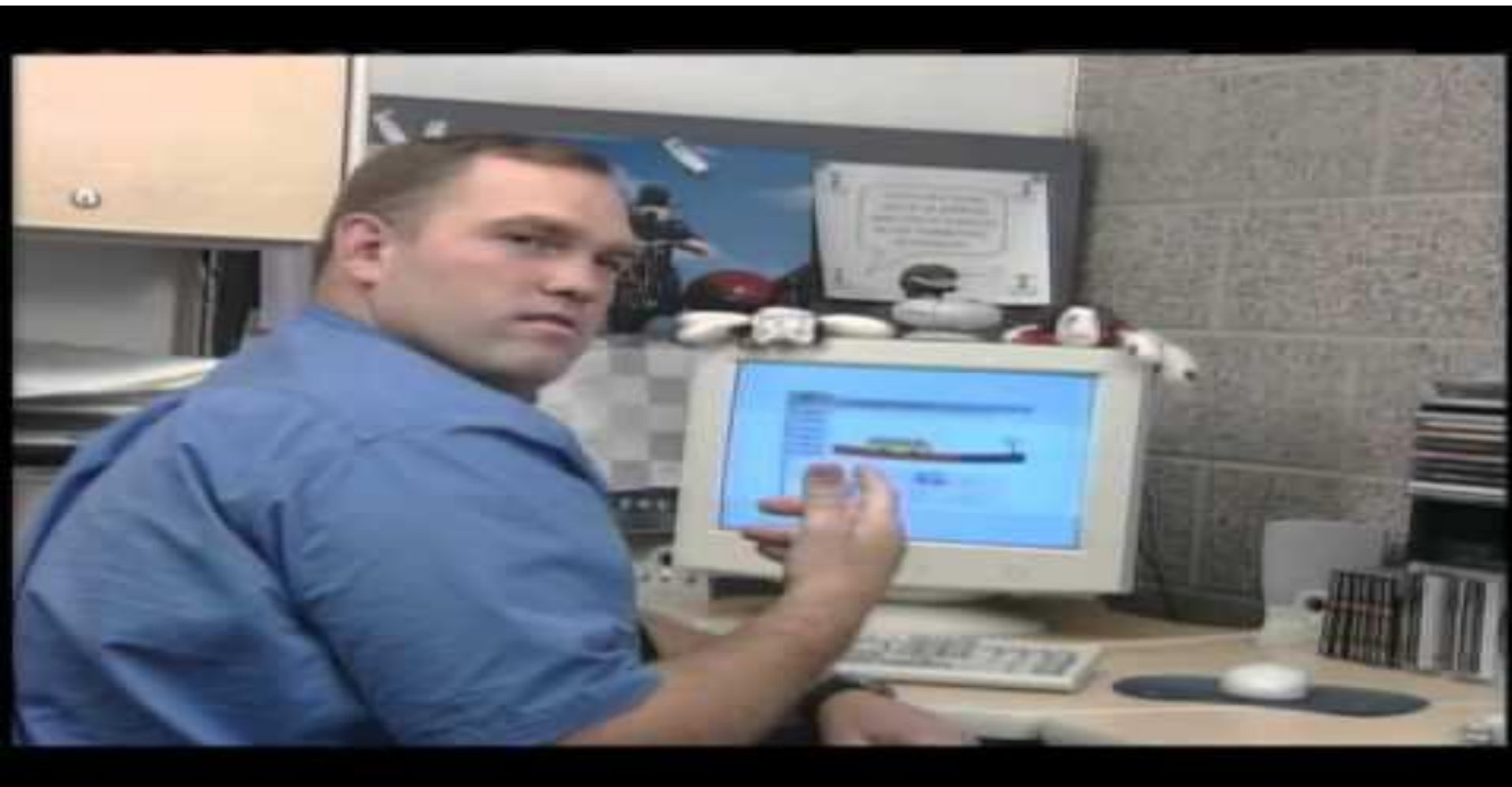
The EQA made sure to cement that websites are indeed included in the types of businesses that need to comply with this new UK web accessibility law.



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# Keeping Web Accessibility In Mind



# Making Your Computer Accessible

# Microsoft Accessibility



There is no limit to what people can achieve when technology reflects the diversity of all who use it. Transparency, accountability and inclusion aren't just built into the Microsoft culture. They're reflected in products and services designed for people of all abilities.

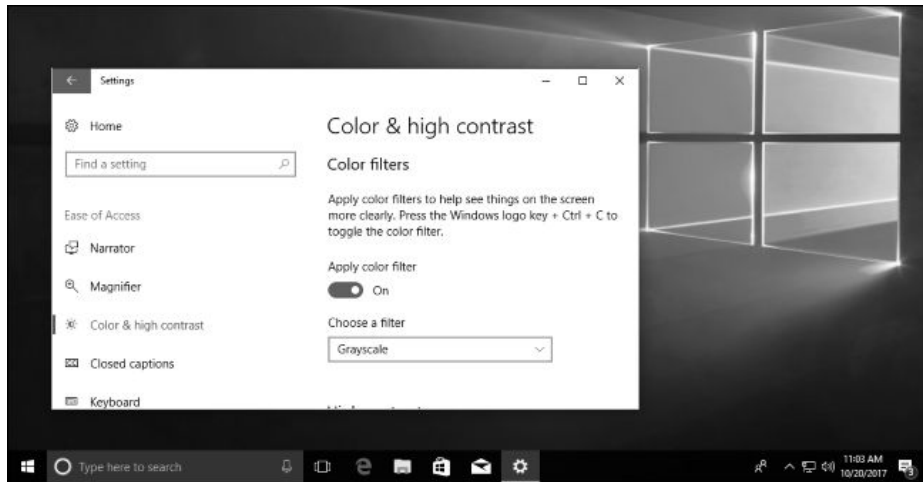
Over one billion people in the world have a disability. The opportunity to empower people through technology, particularly those with disabilities, has never been more important.



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# How to use colour filters in Windows 10

If it's hard to see what's on the screen, apply a colour filter. Colour filters change the colour palette on the screen and can help you distinguish between things that differ only by colour.



# Colour filters in Windows 10 - How to Access

To use a colour filter:

Select Start > Settings > Ease of Access > colour filters.

Switch on the toggle under Turn on colour filters.

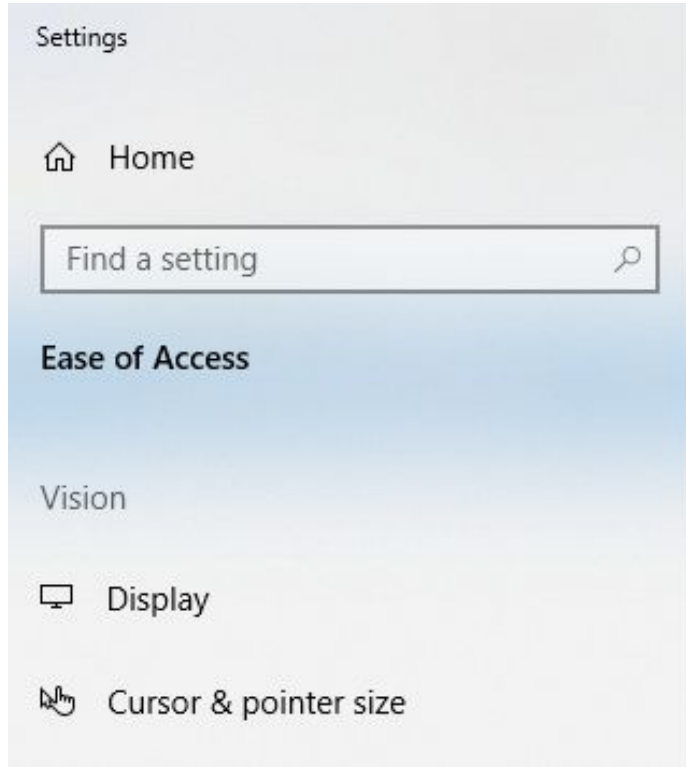
Then, select a colour filter from the menu.

*Note: To get to colour filter settings in previous versions of Windows 10, select Start > Settings > Ease of Access > colour & high contrast.*



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# Colour filters in Windows 10



## Colour filters

Make photos and colours easier to see by applying a colour filter to your screen.

### Use colour filters

Turn on colour filters



Allow the shortcut key to toggle filter c

Press the Windows logo key  + Ctrl + C to



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# Testing your colour settings - Exercise #1

- Split into 4 groups (Spain/Romania/Russia/UK+Turkey)
- Go to Settings
- Go to the Ease of Access menu
- Select Colour Filters and test out some of the settings
- Each group give one reason why or how these settings can be helpful



## Ease of Access

Narrator, magnifier, high contrast

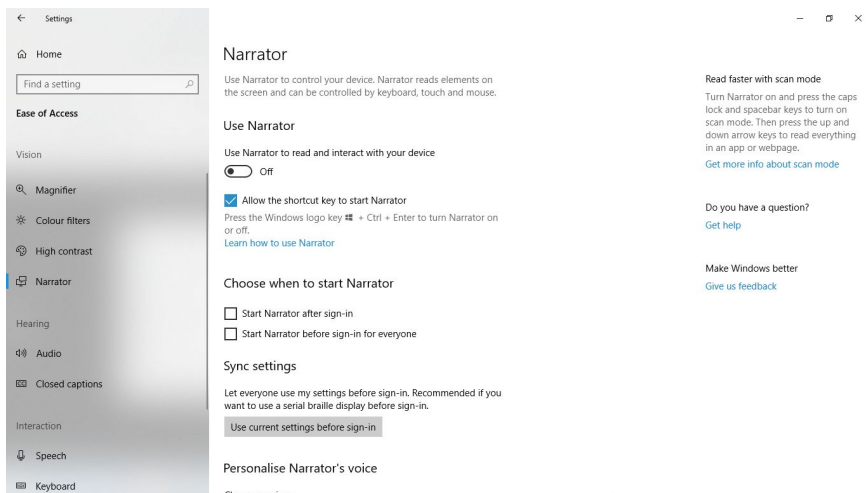


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# How to use narrator in Windows 10

Narrator is a light-duty screen reader utility included in Microsoft Windows. Narrator reads dialog boxes and window controls in a number of the more basic applications for Windows



The screenshot shows the Windows 10 Settings application with the 'Narrator' settings page open. The left sidebar shows the 'Ease of Access' category selected, with 'Narrator' highlighted. The main content area is titled 'Narrator' and includes the following sections:

- Narrator**: A brief description: 'Use Narrator to control your device. Narrator reads elements on the screen and can be controlled by keyboard, touch and mouse.'
- Use Narrator**: A toggle switch for 'Use Narrator to read and interact with your device' is currently turned 'Off'.
- Allow the shortcut key to start Narrator**: A checkbox is checked. Below it, text reads: 'Press the Windows logo key + Ctrl + Enter to turn Narrator on or off.' A link for 'Learn how to use Narrator' is provided.
- Choose when to start Narrator**: Two checkboxes are present: 'Start Narrator after sign-in' (unchecked) and 'Start Narrator before sign-in for everyone' (unchecked).
- Sync settings**: Text reads: 'Let everyone use my settings before sign-in. Recommended if you want to use a serial braille display before sign-in.' A button labeled 'Use current settings before sign-in' is visible.
- Personalise Narrator's voice**: A section header for voice customization.

On the right side of the window, there are additional links and sections:

- Read faster with scan mode**: Text explains how to use scan mode: 'Turn Narrator on and press the caps lock and spacebar keys to turn on scan mode. Then press the up and down arrow keys to read everything in an app or webpage.' A link for 'Get more info about scan mode' is provided.
- Do you have a question?**: A link for 'Get help' is provided.
- Make Windows better**: A link for 'Give us feedback' is provided.

# Narrator in Windows 10 - How to Access

To use narrator:

Select Start > Settings > Ease of Access > Narrator.

Switch on the toggle under Use narrator to read and interact with your device.

You can choose to have the narrator start automatically after sign-in

*Again, access to these settings may vary in older versions of Windows*

← Settings

Home

Find a setting

**Ease of Access**

Vision

Magnifier

Colour filters

High contrast

**Narrator**

# Narrator

Use Narrator to control your device. Narrator reads elements on the screen and can be controlled by keyboard, touch and mouse.

## Use Narrator

Use Narrator to read and interact with your device

Off

Allow the shortcut key to start Narrator

Press the Windows logo key  + Ctrl + Enter to turn Narrator on or off.

[Learn how to use Narrator](#)

## Choose when to start Narrator



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# Testing your narrator settings - Exercise #2

- Again, split into 4 groups (Spain/Romania/Russia/UK+Turkey)
- Go to Settings
- Go to the Ease of Access menu
- Select Narrator and test out some of the settings
- Each group give one reason why or how these settings can be helpful



Ease of Access

Narrator, magnifier, high contrast

High contrast

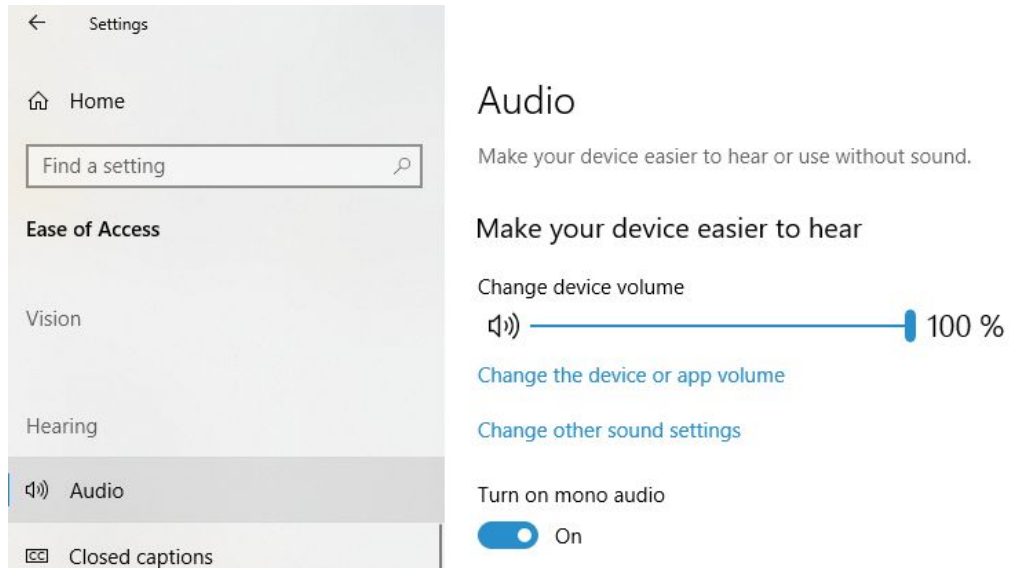
Narrator



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# Audio settings in Windows 10 - Stereo to mono

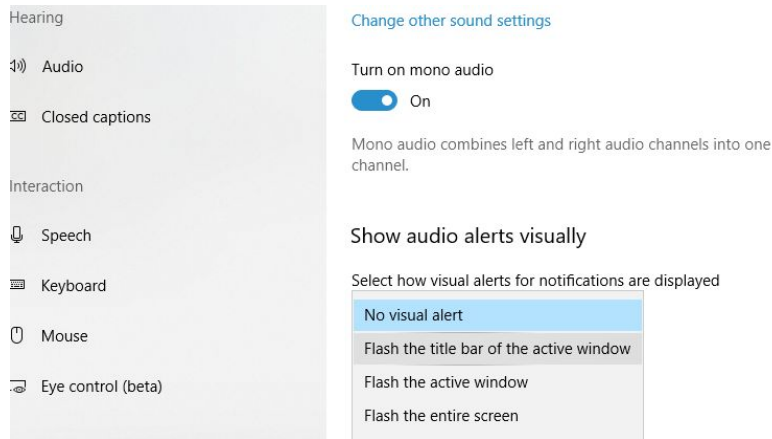
In Windows 10, you can set stereo sound to mono. If you have trouble hearing sound in stereo, it might help to set Windows to convert all stereo sound to mono.



The screenshot shows the Windows 10 Settings application. On the left is a navigation pane with 'Settings' at the top, followed by 'Home', a search box labeled 'Find a setting', and a list of categories: 'Ease of Access', 'Vision', 'Hearing', 'Audio' (which is selected and highlighted), and 'Closed captions'. The main content area is titled 'Audio' and contains the following text: 'Make your device easier to hear or use without sound.', 'Make your device easier to hear', 'Change device volume' with a volume slider set to 100%, a link 'Change the device or app volume', and another link 'Change other sound settings'. At the bottom, there is a toggle switch for 'Turn on mono audio' which is currently turned 'On'.

# Audio settings in Windows 10 - Visual Alerts

Many PC functions include alerts to tell you about things you might want or need to know, like when an email or notification arrives, a sign-in attempt fails, or there's an error. The alerts often come with an audio signal, such as a beep or chime, but you can set Windows 10 to replace that with a visual notification. This means a brief flash of brightness, which can light up your title bar, the active window you're working in, or your entire screen. as well.



The screenshot shows the Windows 10 Settings application, specifically the 'Hearing' section. The left sidebar lists various settings categories: Audio, Closed captions, Interaction, Speech, Keyboard, Mouse, and Eye control (beta). The main content area is titled 'Change other sound settings' and includes a toggle for 'Turn on mono audio' which is currently turned 'On'. Below this, there is a description: 'Mono audio combines left and right audio channels into one channel.' The 'Show audio alerts visually' section is expanded, showing a dropdown menu with four options: 'No visual alert', 'Flash the title bar of the active window', 'Flash the active window', and 'Flash the entire screen'. The 'No visual alert' option is currently selected.

# Audio settings in Windows 10 - How to Access

To use audio settings:

Select Start > Settings > Ease of Access > Audio.

**Stereo to Mono:** Switch on the toggle under Turn on mono audio to convert stereo sound to mono.

**Show audio alerts visually:** Click on the drop down menu to select how you'd like audio alerts displayed.

*Again, access to these settings may vary in older versions of Windows*



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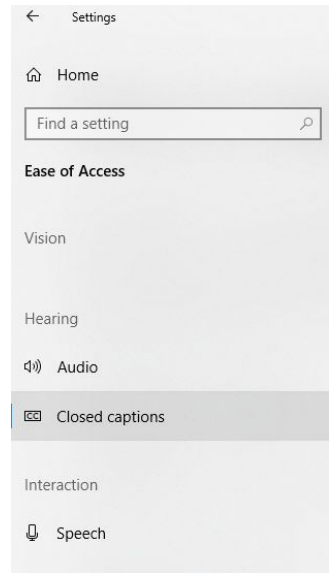
# Closed captions in Windows 10 - How to Access

In Windows 10, you can set the size, color and font of Closed Captions that appears in Windows apps, and in some websites you view with Microsoft Edge. This not only can help those with hearing difficulties watch videos more comfortably, it also can be helpful for people who are blind or who have low vision as well.



# How to use closed caption Windows 10

There are many ways to make closed captions appear just how you want them. Under Change caption font, you can change the color, transparency, style, size, and effects of the actual words in your captions. Under Change caption background, you can put a color behind the captions for better contrast and visibility. Check Preview at the top of the screen to see if you like your new settings.



## Closed captions

Make your device easier to use without sound by displaying audio as text.

### Preview

Use the drop-down menus to change how closed captions appear in Windows



### Change caption font

Caption colour

Default

Caption transparency

Default



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# Closed caption in Windows 10 - How to Access

To use closed captions:

Select Start > Settings > Ease of Access > Closed Caption.

*These settings might not apply to some videos you watch online, like on YouTube or some online news sites.*

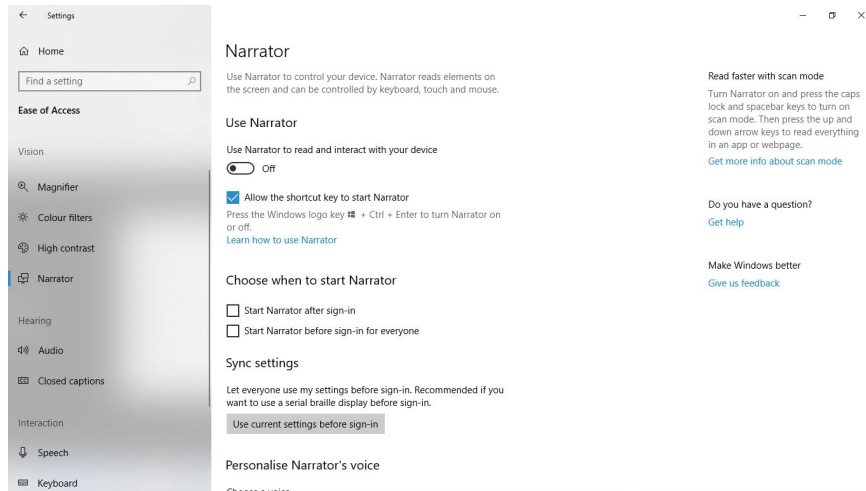
Make your presentations more inclusive  
with Live Captions & Subtitles

or even translating  
your speech from  
one language  
to another



# How to use speech recognition in Windows 10

Windows Speech Recognition lets you control your PC by voice alone, without needing a keyboard or mouse.



The image shows a screenshot of the Windows 10 Settings application, specifically the 'Narrator' settings page. The left sidebar shows the 'Ease of Access' category with 'Narrator' selected. The main content area is titled 'Narrator' and includes the following sections:

- Use Narrator**: A toggle switch is currently set to 'Off'. Below it, there is a checkbox for 'Allow the shortcut key to start Narrator' which is checked. A note states: 'Press the Windows logo key + Ctrl + Enter to turn Narrator on or off. [Learn how to use Narrator](#)'.
- Choose when to start Narrator**: Two checkboxes are present: 'Start Narrator after sign-in' (unchecked) and 'Start Narrator before sign-in for everyone' (unchecked).
- Sync settings**: A note says 'Let everyone use my settings before sign-in. Recommended if you want to use a serial braille display before sign-in.' Below this is a button labeled 'Use current settings before sign-in'.
- Personalise Narrator's voice**: A section header with a 'Change voice' link below it.
- Read faster with scan mode**: A section header with instructions: 'Turn Narrator on and press the caps lock and spacebar keys to turn on scan mode. Then press the up and down arrow keys to read everything in an app or webpage. [Get more info about scan mode](#)'.
- Do you have a question?**: A section header with a 'Get help' link.
- Make Windows better**: A section header with a 'Give us feedback' link.

# How to use speech recognition in Windows 10

Anytime you need to find out what commands to use, say "what can I say?"

*Please note, Speech Recognition is available only for the following languages: English (United States, United Kingdom, Canada, India, and Australia), French, German, Japanese, Mandarin (Chinese Simplified and Chinese Traditional), and Spanish.*

# How to use speech recognition in Windows 10

Here are some commands you can use with Speech Recognition.

To do this	Say this
Open Start	Start
Open Cortana  <b>Note</b> Cortana is available only in certain countries/regions, and some Cortana features might not be available everywhere. If Cortana isn't available or is turned off, you can still use <a href="#">search</a> .	Press Windows C
Open Search	Press Windows S
Perform an action in an app	Right-click; Press Windows Z; press ctrl B
Select an item by its name	File; Start; View
Select an item or icon	Click Recycle Bin; Click Computer; Click file name

# Speech recognition in Windows 10 - How to Access

To use speech recognition:

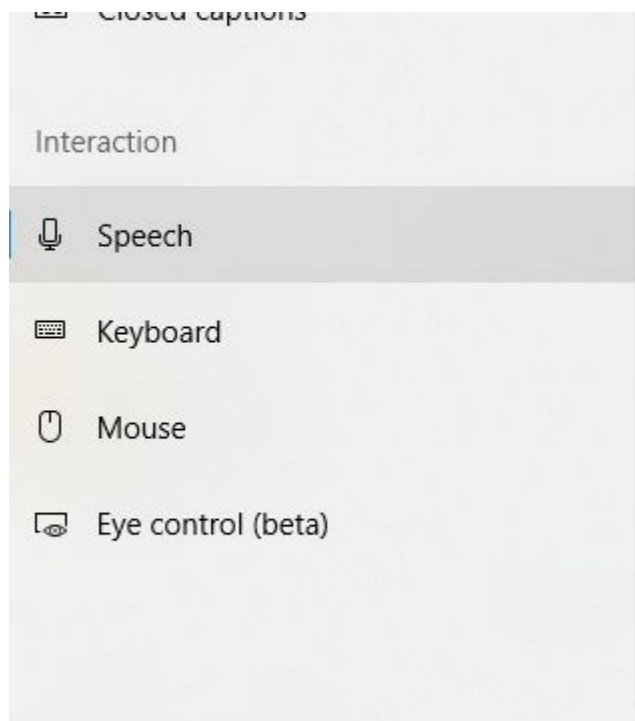
Select Start > Settings > Ease of Access > Speech.

Switch on the toggle under Turn on speech recognition to use it with your device.

*Again, access to these settings may not be available or vary in older versions of Windows*



# Speech recognition




Dictate text and control your device using only your voice

Turn on Speech Recognition



Speech Recognition is only available for the following languages: English (United States, United Kingdom, Canada, India and Australia), French, German, Japanese, Mandarin (Chinese Simplified and Chinese Traditional) and Spanish.

Press the Windows logo key  + Ctrl + S to toggle Speech Recognition on or off.



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# Speech recognition

With speech recognition, you may have to set up your PC to recognise your voice and learn how you speak.

You are also advised to use a separate or external microphone (for best results).

# Android accessibility


You can customize your Android device using accessibility settings and apps.

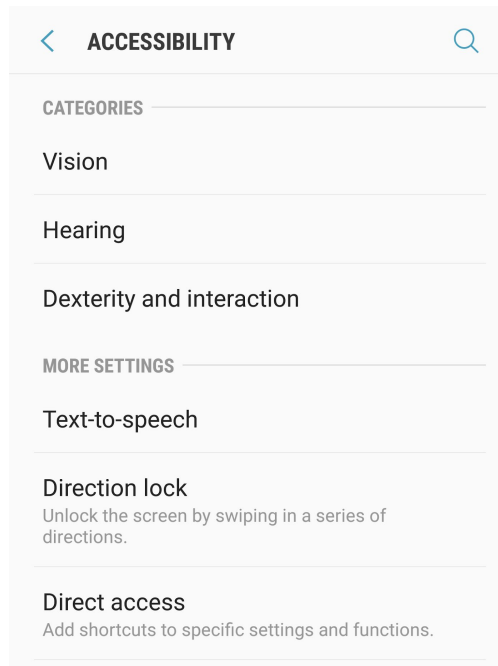
Android Accessibility Suite is a collection of accessibility services that help you use your Android device eyes-free or with a switch device.



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# How to find the accessibility menu on Android?

1. Open your device's Settings app 
2. Tap Accessibility, then Volume key shortcut.
3. On some devices, this setting is called Accessibility shortcut.



# Samsung Galaxy Note 8 Accessibility Settings

# Samsung Note 8 Accessibility Settings



# Turn on accessibility in Android

If you own an Android phone, try playing with the accessibility settings to see some of the functions available on your handset.



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# Top 6 Assistive Technology For People With Disabilities





# Touch-Free SMARTPHONE

Designed for people with **disabilities**



# Useful Links & Referenced Material

## Windows Speech Recognition commands

<https://support.microsoft.com/en-us/help/12427/windows-speech-recognition-commands>

## Make Windows easier to hear

<https://support.microsoft.com/en-us/help/27933/windows-10-make-windows-easier-to-hear>

## Microsoft accessibility overview

1. Vision
2. Hearing
3. Neurodiversity
4. Learning
5. Mobility
6. Mental health

[https://www.microsoft.com/en-us/accessibility/features?activetab=pivot\\_1:primaryr2](https://www.microsoft.com/en-us/accessibility/features?activetab=pivot_1:primaryr2)



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# Useful Links & Referenced Material

## Microsoft Accessibility Learning Webinar Series

At Microsoft, our mission is to empower every person and organization on the planet to achieve more. We are committed to delivering great experiences and customer service to people with disabilities. We have received feedback from many of our customers asking for training on the accessibility features of our products. Our team also understands not all our customers have the flexibility to connect with Microsoft accessibility experts at conferences. In response to overwhelming demand, we are launching a monthly webinar series to empower every customer with accessibility knowledge.

[Read more & sign up](#)

<https://sway.office.com/ofnj0y3PT7dnqb0Z?ref=Link>

# Useful Links & Referenced Material

## Web Accessibility Initiative (WAI) - Teach and Advocate Overview

*This page links to resources related to teaching web accessibility and advocating for web accessibility.*

<https://www.w3.org/WAI/teach-advocate/>

## Training Resources

[How to Make Your Presentations Accessible to All](#)

Helps you make presentations, talks, meetings, and training accessible to all of your potential audience, including people with disabilities and others.

# Useful Links & Referenced Material

## [\\*Developing Web Accessibility Presentations and Training](#)

Provides materials for speakers, lecturers, educators and other presenters to help their participants understand more about web accessibility. The materials provide a range of information from introductory slides for those new to accessibility, to statistics and demos for experienced trainers.

## [Before and After Demonstration \(BAD\)](#)

Shows an inaccessible website and a retrofitted version of the same website. Includes annotations that highlight key accessibility barriers and repairs, and evaluation reports for WCAG 2.0.

# Useful Links & Referenced Material

## Android accessibility overview

- Use a screen reader
- Change your display
- Interaction controls
- Use a braille display
- Audio & on-screen text
- Explore Android accessibility apps and services
- Design and develop more accessible apps

<https://support.google.com/accessibility/android/answer/6006564?hl=en>