



Assistive Technologies in Education

What is Assistive Technology?

Assistive Technology refers to any device, software or equipment that helps children with special educational needs and disabilities (SEND) to access the curriculum and participate fully in school life. These tools can remove barriers to learning and promote educational inclusion. Assistive Technology supports children by improving their:

- Access to the curriculum and evidence their learning.
- Reading and writing skills.
- Ability to communicate and share their knowledge.
- Independence skills.
- Organisation and time management skills.

Who Can it Benefit?

Children and young people with:

- Dyslexia or literacy difficulties.
- Visual or hearing impairments.
- Autism spectrum conditions.
- Speech and language needs.
- Attention Deficit Hyperactivity Disorder (ADHD).
- Physical disabilities.

Types of Assistive Technology

1. Text-to-Speech (TTS) Software

- What they do: Read digital text aloud.
- Useful for: Dyslexia, visual impairments, processing difficulties.
- Examples:
 - **NaturalReader** (free and premium versions).



- [Read&Write](#) by Texthelp (widely used literacy toolbar with reading, writing and study tools).
- [Microsoft Immersive Reader](#) (built into Microsoft 365 apps).
- [ClaroRead](#) (reads on-screen text and includes dyslexia-friendly features).
- [Balabolka](#) (free downloadable TTS programme for Windows).

2. [Speech-to-Text /Dictation/](#)

What they do: Convert spoken words into written text.

Useful for: Dyslexia, physical disabilities, writing difficulties.

Examples include:

- [Windows/Mac built-in dictation tools](#).
- [Google Voice Typing](#) (via Google Docs).
- [Dragon NaturallySpeaking](#) (advanced, paid voice recognition software).

3. [Word Prediction Software](#)

What they do: Suggest words as the child types, improving spelling and writing fluency.

Useful for: Children and young people with reading difficulties and/or dyslexia, motor skill difficulties.

Examples:

- [Clicker](#) by Crick Software (word prediction, speech feedback and sentence building).
- [Co:Writer](#) (intelligent word prediction with grammar support).
- [ClaroWriting Helper](#) (word prediction and dyslexia-friendly writing support).



4. Screen Readers and Magnifiers

What they do: Read content from the screen or magnify on-screen text.

Useful for: Children and young people with visual impairments.

Examples:

- [JAWS \(Job Access With Speech\)](#) (advanced screen reader for Windows).
- [ZoomText](#) (screen magnifier and reader).
- [NVDA \(Non-Visual Desktop Access\)](#) (free, open-source screen reader).
- [Windows Magnifier and Narrator](#) (built-in accessibility features).
- [VoiceOver](#) (built into Apple devices).

5. Visual Timers and Organisers

What they do: Help with time management and routine planning.

Useful for: Children and young people with Autism, ADHD and/or executive function difficulties.

Examples:

- [Time Timer](#) (visual countdown timers).
- [Visual Schedule apps](#) (for example, Choiceworks)
- [Google Calendar](#) (reminders and task planning).
- [MyStudyBar](#) (free desktop toolbar for organisation, reading and writing).

6. Alternative Input Devices

What they do: Allow access to computers and tablets through alternative means.



Useful for: Supporting children and young people with physical disabilities access computers and tablets.

Examples:

- **Switch access devices** (for scanning-based control).
- **Eye-tracking systems such as Tobii** (eye-tracking input for communication and access).
- **Physical hardware alternatives** (for example, adaptive keyboards and mice).

7. Communication Aids (AAC - Augmentative and Alternative Communication)

What they do: Support students who have difficulty speaking. Supports non-verbal or speech impaired students.

Useful for: Children and young people with speech and language impairments.

Examples:

- **Proloquo2Go** (iPad-based symbol communication app).
- **Grid 3 by Smartbox** (comprehensive communication and access software).
- **GoTalk Now app** (customisable AAC app for tablets).
- **CoughDrop app** (AAC communication system and collaborative tool).

8. Literacy and Learning Support Tools

General support for reading, writing and study.

- **Ghotit Real Writer** (advanced spelling/grammar tool for dyslexia).
- **WordQ** (combines word prediction with TTS).
- **KAZ Typing Tutor**: (touch typing programme for SEND learners).
- **MindView** (mind-mapping and planning tool).
- **Inspiration Maps** (visual planning and diagramming tool for iPads).



Tips for Successful Implementation:

- Match the right tool to the child's needs – one size does not fit all.
- Involve parents/carers and the child in decision-making.
- Embed technology into daily routines and classroom practice.
- Provide ongoing support and review effectiveness regularly.