

# Introduction to Assistive Technology

This guidance is intended for teachers working in mainstream settings who wish to deepen their understanding and use of assistive technology in their practice.

You should allow up to 1hr to complete it.

### Introduction

Welcome to this introduction to assistive technology (AT). By the end, you should have developed your understanding of what AT is and the impact it can have in the classroom. The intention is to increase your confidence in planning the use of assistive technology and consider how to tailor it to your pupils' needs. When you finish, you'll create a short, personalised action-plan to outline your next steps.

You'll consider:

- what is meant by the term 'assistive technology';
- what the evidence tells us about the impact of AT to support pupils with SEND;
- how AT can be used in mainstream settings to support pupils with SEND
- possible actions or next steps; and
- where you can go for further support.

You'll also complete some short tasks to help you to reflect on how you use AT within your current practice. This will help guide your next steps.

Please click on the links below to navigate through the content. You may want to have a pen and paper to hand to make notes too.

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## **Assistive technology: personal reflection**

### **Reflect and RAG rate your current confidence and understanding**

Before you begin to look at assistive technology more closely, take a moment to reflect on your current understanding and confidence at using it in the classroom.

This is not an evaluation of your practice. It is intended as a diagnostic to help you identify your strengths and next steps.

### **RAG rate each reflection statement using the criteria below:**

- **Red** – I'm not confident yet and my understanding is limited.
- **Amber** – I'm developing my confidence and understanding.
- **Green** – I'm confident and have good understanding.

### **Reflection statements**

1. I understand what low-cost assistive technology is and how it can scaffold access to the same curriculum.
2. I know which pupils in my classes may benefit from assistive technology and why.
3. I am aware of the assistive tools already available on the devices or platforms we use in my school.
4. I can select and model an appropriate assistive tool to support reading, writing or organisation.
5. I can introduce assistive technology in ways that normalise use and build independence.
6. I can evaluate whether an assistive tool is genuinely improving access and learning.

You'll revisit these questions again at the end of this guide.

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## Section 1 – What is assistive technology?

### What is meant by the term 'assistive technology'?

Assistive technology (AT) is an umbrella term that includes any device, software or system that a child or young person with SEND uses to overcome barriers to learning. It includes specialist equipment like Braille devices and alternative and augmentative communication (AAC) devices as well as free or low-cost accessibility software such as dictation tools, and non-digital tools like pencil grips or walking aids. Increasingly, these technologies are integrated into mainstream laptops or tablets, improving accessibility while reducing cost barriers.

### The evidence and impact of using assistive technology to support pupils with SEND

#### Why use assistive tools?

Inclusive learning means that pupils with SEND are taught alongside their peers. This can support both academic progress and a stronger sense of belonging (Cullen et al., 2020).

Research suggests that inclusion, when planned carefully and supported by all staff, may also benefit the wider class, improving progress and social interaction (Szumski et al., 2017). Within this model, assistive technology can act as one mechanism for enabling access and inclusion whilst maintaining shared learning experiences.

Well-chosen assistive technology acts as a strategic investment to 'level the playing field' for pupils with SEND, moving beyond simple convenience to making curriculum access possible (DfE, 2020, p.8). The right assistive technology not only enables access, but can also enhance a learner's strengths, remove barriers caused by a disability, or provide alternative ways of completing tasks (DfE, 2020).

#### Effective implementation

The process of securing appropriate AT is a multi-faceted, child-centred journey. It involves identification, assessment, procurement, and ongoing training and should not be considered as a one-off event (DfE, 2025a; DfE, 2025b). To do this effectively, schools need commitment from senior leaders relating to budgets and necessary resources. This includes funding for assistive tools; leading on multi-agency working; staff training and effective staffing deployment. School leader buy-in ensures a shared understanding of the value and commitment to AT use in mainstream settings (DfE, 2025b).

Due to the extent of tasks involved, SLT may wish to identify an 'AT champion' - a staff member to coordinate with colleagues, IT specialists and external agencies

providing support and helping to navigate technical barriers such as network compatibility, programming and e-safety policies (DfE, 2025b, p.4).

The AT champion could be the SENCo, IT lead, or a class teacher with a passion for inclusion or technology who wishes to develop their leadership skills. However, care needs to be taken that AT is not then regarded as the responsibility of just one person. One DfE funded pilot explored a 'train the trainer' approach (DfE, 2024) in which information was cascaded and shared by one person who had received training. This pilot showed promising signs with staff meetings and 1:1 training being used as mechanisms to share learning over time.

Once the appropriate tool or tools have been identified, all users, and specifically pupils, will require training to reduce the risk of 'AT abandonment', where tools are discontinued or under-used due to difficulties using them rather than problems with the tool itself (DfE, 2025a, p.32). However, it can take time for pupils to build confidence and skills when using new assistive tools. Teachers should therefore adopt a flexible approach during this time and demonstrate patience during the initial stage of implementation (DfE, 2025a).

To ensure assistive technology can be used effectively, it is equally important that the underlying materials themselves are accessible. Simple steps, such as using built in accessibility checkers in Microsoft Office, Google Workspace, and Apple tools, can help identify and address common barriers (e.g. poor contrast, missing alt text, or inaccessible formatting). Embedding these checks as standard practice can significantly improve access for all pupils, particularly those relying on assistive technology.

### **Multi-agency working**

High-quality multi-agency working ensures all parties are responsive and clear on their specific roles (DfE, 2025b). This can be considered as an 'AT ecosystem' (DfE, 2025b, p.4) that involves:

- parents and families;
- the school or educational setting;
- the local authority (LA) including LA specialists and professionals;
- suppliers of the AT and;
- charities.

Education settings are generally at the centre of the ecosystem as they take the lead on identification of AT need (DfE, 2025b). Different factors will influence the extent of multi-agency work required with key influences being the need of the child, the type of AT and its cost, and the location (DfE, 2025b).

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Parents and carers often play a key role in the successful implementation process. Not only as advocates for their child and their needs, but also in taking responsibility for ensuring the AT is correctly integrated and used at home, where appropriate (DfE, 2025b).

The implementation journey may not be a linear process and may involve different agencies at different points (DfE, 2025b). Therefore, effective implementation of the AT journey is more likely to occur where there are professional relationships between agencies, underpinned by transparent and timely information sharing particularly where there are staff changes or transitions (DfE, 2025b).

For educational settings with limited experience of AT, collaborative work with other contexts may be useful to enable an effective implementation of journey (DfE, 2025b).

Finally, ensuring carefully-managed transitions between education settings is paramount. It requires long lead-in times and the transfer of detailed usage data to ensure the new environment is prepared to maintain the pupil's access to essential technology (DfE, 2025b). Variances in budgets between settings along with different levels of staff expertise and IT capabilities should all be factored into transition planning (DfE, 2025b).

### **Impact and use of assistive technology**

The Department for Education (DfE, 2024) found that the effective use of AT supports independence, confidence, and better behaviour in the classroom. After attending a DfE AT training course for mainstream school staff, 92% of respondents to the post-course survey saw greater pupil independence, while 89% reported improved confidence. AT can also boost literacy, for example, speech-to-text can help pupils express their ideas more clearly, closing the gap between spoken and written work. Over 60% of schools saw attainment gains for SEND pupils.

However, for AT to be effective, it must be part of everyday teaching, not simply used as an add-on. The strongest results were in schools where:

- pupils and teachers had proper training;
- AT was embedded into regular routines; and
- plans were made for long-term use, including transition into secondary.

### **Structured teaching to support metacognition and self-regulated learning**

Assistive technology can support structured approaches to building independence, alongside high-quality teaching. The emphasis on enabling access within shared learning experiences aligns closely with structured approaches to building

independence. The EEF's Seven-Step Model (2025a) outlines a framework for building independence, from activating prior knowledge through to reflection.



Adapted from EEF: Metacognition and Self-Regulated Learning guidance, 2025a

Structured teaching makes inclusion more effective (Davis et al., 2004). The EEF's Seven-Step Model (EEF, 2025a) recommends structured teaching through:

- linking new learning to prior knowledge;
- teaching strategies for planning and self-monitoring; and
- providing guided and independent practice to build confidence.

Assistive technology can complement these approaches, for example by supporting planning, modelling and independent practice through tools such as digital organisers, text-to-speech or dictation.

### Scaffolding independent learning

The 'I do, we do, you do' model (Fisher & Frey, 2004) supports growing independence and helps reduce over-reliance on adult help (EEF, 2025b). Moreover, technology can be woven into each stage of this model as part of adaptive practice for all learners.



Adapted from the 'Gradual Release of Responsibility framework' (Fisher & Frey, 2004)

### How this might look in practice

<b>I do it</b>	<p>The teacher models how to use a planning template using Google docs.</p> <p>Step-by-step teacher explanation based on pupils' prior learning and knowledge of individual needs.</p> <p>Explanation includes planned assessment points to check for understanding and re-teach if needed.</p>
<b>We do it</b>	<p>Pupils undertake step-by-step guided practice using Google Docs.</p> <p>The teacher, and support staff if available, guide pupils through each step slowly, monitoring continuously and re-teaching where necessary. This could include strategies such as 'my turn, your turn' if needed.</p>
<b>You do it together</b>	<p>Where appropriate, pupils work with a partner to practice. This step could be bypassed where not appropriate.</p> <p>Teacher and other adults continue to monitor and assess, providing additional support where needed.</p>
<b>You do it alone</b>	<p>Pupils use the tool independently in their work.</p>

Against this backdrop of inclusive and structured teaching, AT can be understood as one practical means of enacting these principles in the classroom. Technology can help pupils with SEND access learning and develop independence. Used thoughtfully, it removes barriers without lowering expectations (EEF, 2019). Tools like text-to-speech, speech-to-text, and visual supports, such as images, symbols or other visual cues, can help pupils process information, communicate, and stay engaged (EEF, 2019; DfE, 2025a).

Assistive technology can also streamline adaptation and reduce demands on teachers by:

- allowing pupils to access materials independently;
- handling routine tasks like reading or scribing; and

- improving engagement and classroom behaviour (DfE, 2024).

Additionally, more than two-thirds of participants in the Assistive Technology Test and Learn pilot (DfE, 2024) shared that AT enabled support staff's time to be used more effectively.

### Time to reflect

**Now that you have explored the definition, evidence and impact of assistive technology, take time to reflect on your own practice.**

**Consider the following:**

- What was new or surprising in the evidence about assistive technology and its impact?
- Were there any elements of the AT implementation journey that you were already familiar with? Were there any that you were not previously aware of?

You can use these reflections to help you plan your next steps later.

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## **Section 2: Assistive technology that can be used in mainstream settings to support pupils with SEND**

It is helpful to consider what current research identifies as the main types of assistive technology used to support pupils with SEND in mainstream classrooms. A DfE rapid literature review provides a helpful overview (DfE, 2020). The review highlights an expanded range of assistive technologies, including text-to-speech and speech-to-text software, talking calculators, graphic organisers, picture-supported text, audiobooks and wearable AT.

These tools can improve access, participation and independence for pupils. However, the review also identifies ongoing challenges, including weak and uneven evidence, limited training, usability issues and low specialist involvement.

This indicates that, although technology offers increasing possibilities, its effectiveness depends on careful selection based on a pupil's needs, appropriate training and integration within high-quality teaching rather than reliance on technology alone (DfE, 2020).

It is therefore important to work closely with relevant colleagues, such as the SENCo, as well as external specialists such as occupational therapists (OTs), speech and language therapists (SaLTs), physiotherapists, or Qualified Teacher of Children and Young People with Vision Impairment (QTVIs). These specialists can help teachers to identify the most appropriate AT, establish whether it is available in your school and support with staff training. You may also benefit from working with other local schools, including specialist settings, to share knowledge and draw on specialist expertise (DfE, 2025b).

The technologies described below are a non-exhaustive list of some forms of assistive technology that can be implemented using tools that are often already available in most classrooms. In addition to these common tools, it's worth remembering that some specialised devices and software, such as a AAC devices, can also be beneficial for pupils in mainstream settings.

### **1. Text-to-Speech**

Text-to-Speech tools read digital text aloud to support decoding, fluency and comprehension. These tools can be used across a range of content, including text documents, webpages and presentations. They are often built into devices or

available through free extensions and can be particularly helpful for pupils with dyslexia, visual impairments or processing difficulties.

Text-to-speech is available across all common platforms. In Google Workspace, read-aloud features can be enabled using browser extensions or built-in accessibility tools to read text in Docs, Slides and webpages. In Microsoft products, a built-in Read Aloud function is available across applications such as Word, PowerPoint and Edge. On Apple devices, text-to-speech can be turned on through accessibility settings, allowing selected text or on-screen content to be read aloud across apps and web content.

How you could embed this into practice:

- Supporting pupils to maintain stamina when reading longer texts, especially under timed conditions.
- Helping pupils to understand text and proofread their writing by reading it aloud – it can be easier for some pupils to hear errors than see them.
- Supporting pupils for whom reading any texts can be challenging.
- Supporting pupils who struggle to maintain focus when longer reading tasks.

For pupils preparing for tests or exams, exam-reading scanning pens are permitted for use by the Joint Council for Qualifications (JCQ) as long as they are established as part of normal classroom practice. The pen enables pupils to hear printed text being read aloud via earphones. Because it has no dictionary, thesaurus, or data-storage functions, schools can use it without submitting applications or evidence.

It is an approved alternative to a human reader, fostering greater independence for pupils who experience literacy difficulties, especially under timed conditions.

How you could embed this into practice:

- Allowing pupils to use a pen in regular reading or comprehension tasks to build confidence and familiarity.
- Using the pen during timed tasks or quizzes to enable pupils to practice using it under 'exam' conditions.

It is important to note that the use of exam-reading scanning pens is restricted for some parts of the national curriculum tests for primary school pupils to ensure the assessments remain valid. The Standards and Testing Agency can provide advice on this.

JCQ [guidance](#) is updated and published annually. You should make sure you are using the most recent guidance relevant to the assessment, when making decisions about the best approach for your pupils.

### 2. Speech-to-Text

Speech-to-text allows pupils to speak their ideas and have them converted automatically into written text. This reduces the physical and cognitive load of handwriting or typing, enabling pupils to focus on vocabulary, structure and content as they write and edit their work.

Speech-to-text functionality is available through many commonly-used programmes or devices, for example:

- In Microsoft Word through 'Office Dictation'
- In Google Docs through 'Voice Typing' (under Tools)
- On Apple devices using the keyboard microphone
- Windows using the built-in speech recognition shortcut (Windows key + H)

How you could embed this into practice:

- Supporting pupils for whom the physical act of writing is challenging
- Boosting motivation for pupils who lack stamina when writing long pieces of work
- Enabling oral rehearsal before writing
- Allowing pupils to respond to written questions verbally
- Scaffolding idea generation for pupils who struggle to start writing

### 3. Graphic Organisers & Planning Templates

These can be created easily in Word, PowerPoint or Google Docs using tables and text boxes. No specialist software is required and the template can be personalised to meet specific needs or targets.

How you could embed this into practice:

- Providing paragraph scaffolds for writing
- Creating essay planning grids
- Using digital versions that pupils can type directly into
- Providing story maps to organise narrative ideas
- Using sequencing grids to structure events or processes
- Including word banks and vocabulary boxes to support word choice
- Creating simple beginning–middle–end frameworks to organise writing

Together, these examples show that assistive technology is not an add-on, but a practical component of inclusive, adaptive teaching that scaffolds access and independence. In most schools, additional software is not required to use the approaches outlined above and they can often be embedded into practice without the need for lengthy training.

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These tools can support pupils to access learning in ways that suit their individual needs, encourage confidence, boost motivation and foster greater independence. Furthermore, they are relatively easy to use, although some modelling and support for pupils would be needed initially.

When embedded routinely, it enables all learners to experience success while maintaining high expectations for all. In the next section, we will explore some of these approaches in action within classroom practice.

### Time to reflect

**Before moving on, take a moment to reflect on how the assistive technologies outlined above relate to your own classroom context.**

- Which, if any, of the approaches described are you already using in your classroom, even if you have not previously identified them as assistive technology?
- Thinking about a pupil you currently support who may benefit from assistive technology, what barriers to learning are they experiencing, and how could these tools help?
- Which of the assistive technologies outlined above could most readily be embedded into your existing classroom routines, and what specific barrier(s) to learning would it address?
- Before introducing a tool, how will you ensure it is carefully selected based on a pupil's needs, supported by appropriate training and aligned with high-quality teaching in your classroom?

Keep these reflections to hand to help complete your mini action plan at the end.

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## Section 3 – What this looks like in practice

Whatever phase you teach, building an inclusive learning environment means balancing support and challenge for pupils with SEND. As you have already read, structured teaching, high expectations, and appropriate use of assistive technology all help reduce barriers and promote independence.

The examples of brands and assistive technology (AT) products in these case studies are illustrative only. They do not imply endorsement or recommendation of any particular tool by the Department for Education. Decisions about which AT, if any, is appropriate will always be context-dependent. You should always follow DfE's Keeping Children Safe in Education guidance and seek advice from relevant specialists where needed.

### Ways in which assistive technology can be used

Click on the links below to read more on each phase:

<a href="#">Early Years</a>	<a href="#">Primary</a>	<a href="#">Secondary</a>	<a href="#">Post-16</a>
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### Early Years

In early years settings, some children may struggle to communicate, regulate attention, interact with adults or peers, or access early literacy activities. Structured routines, modelling and the thoughtful use of assistive technology can support interaction, build confidence and promote early independence. The examples below all illustrate ways in which assistive technology can be used in early years practice, including low-tech, digital and embedded tools, to support access and participation:

- **Understanding of routines and expectations-** use visual timetables, now-and-next boards or simple digital prompts to support understanding of routines
- **Building oracy skills-** use audio recording tools to capture adult-modelled language and children's speech so it can be so it can be rehearsed, revisited and shared to support communication development
- **Early problem-solving-** use visual task breakdowns, symbol-supported instructions or interactive whiteboard tools to scaffold early problem-solving;
- **Participation, interaction and early mark-making-** use tools such as talking tins, simple text-to-speech, visual timers or touch-screen devices to support engagement with activities, teachers and peers.

At this stage, assistive technology supports access to play-based learning while promoting participation, interaction and communication.

### Primary

In primary settings, some pupils may begin to doubt their ability. Structured teaching, positive messaging and the thoughtful use of assistive technology can reinforce confidence and independence.

The examples below all illustrate ways in which assistive technology can be used in primary classrooms, including low-tech, digital and embedded tools, to support access, participation and learning:

- **Identifying gaps and building confidence** using formative assessment tools, including digital quizzes or polling software, to identify knowledge gaps or low confidence early;
- **Supporting problem-solving and task completion** use visual or digital task breakdowns to scaffold each step to teach and rehearse problem-solving strategies;
- **Encouraging collaboration and peer learning**, through structured discussion supported by shared digital documents or collaborative platforms;
- **Supporting reading, organisation and idea development** through tools such as text-to-speech, visual timers or digital concept maps to support reading, organisation and idea development.

### Secondary

In secondary settings, older pupils may need additional support to manage workload, organisation and motivation.

The examples below all illustrate ways in which assistive technology can be integrated within structured teaching in secondary classrooms, including low-tech, digital and embedded tools, to support organisation, learning strategies and increasing independence:

- **Planning, revision and self-monitoring-** using digital organisers, checklists or calendar tools to develop study strategies;
- **Developing independent learning habits-** by reducing support gradually while encouraging independent use of tools such as dictation or reading support;
- **Planning, drafting and editing work-** use tools as speech-to-text, digital planners or text-to-speech tools to support organising, producing and revising written assignments.

### Post-16

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In post-16 settings, learners may face increased demands related to academic independence, organisation and self-regulation. Assistive technology can be embedded within structured teaching to support autonomy and preparation for further study or employment.

The examples below all illustrate ways in which assistive technology can be used in post-16 settings, including digital and embedded tools, to support independent study, access to learning and self-management:

- **Organising coursework and deadlines-** using digital planners, task management apps or calendar tools to develop independent study strategies;
- **Supporting note-taking, reading and revision-** through dictation, text-to-speech or captioning tools;
- **Understanding expectations and improving outcomes-** provide multimodal feedback through audio or screen recording to model higher-level analysis or professional standards;
- **Preparation for adulthood and developing autonomy-** gradually shift responsibility to learners to select and manage appropriate assistive tools independently.

Across all phases, inclusive practice means maintaining high expectations, clear structure and flexible support, with assistive technology acting as one practical means of enabling this.

### Supporting pupils to use assistive technology

These active ingredients support the effective use of assistive technology as part of creating an inclusive learning environment.

Active ingredients refer to the core actions or behaviours that make an approach effective. They are the underpinning principles behind the action or the behaviour and always remain the same. However, the way in which they can be applied may change within different contexts or phases to adapt to the needs of pupils.

- **Identification of the appropriate AT:** The right assistive technology can enable pupils to complete tasks independently and experience success where they may not previously have been able to (DfE, 2020). As outlined earlier, this will involve working with the SENCo and relevant external specialists both to identify and source the right tools and provide training for staff. Continue to assess the impact of the assistive technology, ensuring tools remain matched to need.
- **Embed structured teaching strategies alongside AT:** Use models like 'I do, we do, you do' (Fisher and Frey, 2004) to guide pupils from supported tasks to working independently, considering how AT can be used at different stages. The EEF's Seven-Step Model (EEF, 2025a) helps build independence gradually: start with prior knowledge, support practice, then step back. Scaffold early, including through technology and remove support as confidence grows.
- **Foster high expectations for all pupils:** Hold high expectations for every pupil, including those with SEND. Use assistive technology to support access to challenging tasks, ensuring pupils are stretched rather than overwhelmed. Avoid fixed labels, focus on effort, progress, and the belief that all pupils can improve.
- **Develop pupil confidence and independence:** Give clear feedback that praises effort and offers next steps. Use modelling, goal setting, and reminders to help pupils stay motivated. Group work and discussion can build confidence, especially for pupils with SEND.
- **Collaborate with colleagues, specialists, and families:** Work closely with the SENCO, TAs and specialists to align approaches to assistive technology. Early involvement of stakeholders is key (DfE, 2025b). Clarify what tools pupils can use in lessons and assessments. Engage families where appropriate, so pupils experience consistency in how technology supports learning across contexts.

So now let's see how these active ingredients might look in practice.

### Examples

Click to view the examples from different phases. Note where you see the active ingredients in action. Reflect on the pupils you currently work with and consider how this could look in your own setting. What might need to be adapted to contextualise the application within your classroom?

<a href="#">Example 1: EYFS</a>	<a href="#">Example 2: Primary</a>	<a href="#">Example 3: Secondary</a>	<a href="#">Example 4: Post 16</a>
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#### Example 1 - EYFS

In this example, Ms. Springfield explains how she used low-cost, readily available assistive technology alongside the 'I do, we do, you do' model within a Reception phonics lesson to scaffold access, build confidence and promote independence. In a recent phonics lesson, the focus was on blending CVC words and writing a simple sentence linked to a picture prompt (for example, a cat or a dog). Most children were able to blend the sounds orally and write independently. However, a small number of children were hesitant to begin writing, and I noticed they found it difficult to remember the word or sentence they had just said aloud.

Last year, we had some in-school support from a speech and language therapist (SaLT), who suggested strategies focused on oral rehearsal and reducing memory load. I used these strategies alongside the 'I do, we do, you do' model to support children who were finding this transition from spoken language to writing more challenging.

Firstly, I modelled blending a CVC word using magnetic letters and a picture prompt, saying each sound clearly and then blending them together. I then demonstrated how to use the built-in voice recorder on a tablet to record the blended word and a short sentence, such as "I see a cat." This provided a clear model of how the technology could be used to support remembering what to write.

During guided practice, children worked with a partner to build a target word using magnetic letters. With adult support, they used the voice recorder to record themselves saying the word and the sentence. Listening back helped them rehearse the language and increased confidence before starting their written work. For those children who needed extra support, I recorded the

model sentence on a classroom tablet so they could listen back independently at their table.

Finally, children used the voice recorder independently to rehearse blending the word and saying the sentence before writing it in their books. The expectation to apply their phonics in writing remained the same for all children.

The technology did not replace phonics teaching or writing. Instead, it provided a simple scaffold to support memory, confidence and independence, particularly for children who found it harder to move from spoken language to written work.

### **Example 1 analysis**

This example illustrates how assistive technology can be embedded seamlessly within structured early literacy teaching in EYFS. The technology is not an add-on; it supports the core aims of phonics instruction by reinforcing sound blending, oral rehearsal and early sentence construction. By using a simple built-in tool such as voice recording, Ms. Springfield reduces barriers linked to working memory while maintaining high expectations that all children apply their phonics in writing.

There is a clear emphasis on independence. Using the gradual release approach (Fisher and Frey, 2004), children are supported to rehearse, listen back and prepare for writing without immediate adult intervention. This gradual transfer of responsibility aligns with structured teaching principles, as modelling is followed by supported practice and then more independent application.

The teacher's approach also demonstrates the value of working with specialist SEND professionals. Strategies recommended by the SaLT were embedded into everyday phonics teaching, supporting children who benefit from additional oral rehearsal and reduced memory load while maintaining a whole-class focus.

Importantly, the approach operates at a whole-class level while allowing additional support where needed. All children work towards the same learning intention and written outcome, but the use of assistive technology provides flexible scaffolds to ensure participation, confidence and inclusion.



### Example 2 – Primary

In this example, Mrs Davis, a KS2 teacher, uses real-time captioning to support a pupil with identified hearing difficulties to ensure the classroom is inclusive.

In her Year 5 classroom, Mrs Davis uses real-time captioning to support Amir, a pupil with identified hearing difficulties, to access whole-class teaching.

During carpet sessions and direct instruction, Mrs Davis wears a wireless microphone linked to a school-issued tablet positioned in front of Amir. Her spoken language is converted instantly into captions, allowing him to follow explanations, instructions and class discussion in real time.

Collaborative work took place between Amir's parents, the senior leadership team, the SENCo and the local authority's Qualified Teacher of Deaf Children and Young People (QTOD) to identify the most appropriate AT to support Amir. This tool was selected because Amir can miss parts of spoken input, particularly when there is background noise, multiple speakers or unfamiliar vocabulary. Real-time captioning is therefore appropriate to his need, as it provides immediate visual access to spoken language while also reinforcing literacy through exposure to printed text. It enables him to remain included in the same lesson as his peers rather than relying on repeated adult explanations afterwards.

When the technology was first introduced, Mrs Davis spent dedicated time showing Amir how to use the tablet, read the captions effectively and ask for help if the device was not working correctly, helping him to use it confidently during lessons.

To maximise the impact of the technology, Mrs Davis uses a range of supportive strategies alongside it. Before each lesson, she checks that the microphone, tablet and software are functioning correctly. She ensures Amir is seated where he can clearly see her face, the interactive whiteboard and the captioning screen. When teaching, she faces the class while speaking, uses clear pacing, pauses regularly to allow processing time and supports key concepts with visual resources. If another pupil contributes, she repeats their comment into the microphone so that it is captured accurately. She also checks Amir's understanding discreetly at transition points and before independent tasks begin.

The teaching assistant in the classroom supports implementation by helping Amir manage the device independently, for example adjusting text size, positioning the screen appropriately and resolving simple technical issues. This encourages confidence and independence rather than over-reliance on adults.

Mrs Davis and support staff received training through the QTOD. This has included understanding the educational impact of hearing loss, managing classroom acoustics, effective communication strategies and practical use of the captioning technology. Ongoing advice from the QTOD helps refine classroom practice and review progress. Training for wider staff is already planned as part of the transition activities at the end of the academic year.

### Example 2 analysis

This example demonstrates how assistive technology is most effective when it is embedded into everyday classroom practice rather than treated as an add-on. In Mrs Davis's classroom, real-time captioning is part of established routines: the microphone is checked at the start of lessons, seating is planned deliberately, and captioning is consistently used during whole-class teaching. This normalisation reduces stigma for Amir and ensures that access to learning is predictable and reliable rather than dependent on ad hoc adult intervention.

A key feature of the approach is the emphasis on Amir's independence. The support provided by Mrs Davis and the teaching assistant is carefully structured so that Amir is not passive in the process. Instead, he is actively supported to understand how to use the device, monitor whether it is working effectively, and request help when needed. Over time, this builds self-advocacy skills, enabling him to take increasing ownership of his learning access. This independence is particularly important for long-term inclusion, as it reduces reliance on adult mediation and supports confidence in a mainstream learning environment.

Senior leadership team (SLT) involvement has been central to successful implementation. They have taken an active leadership role in resourcing the technology, allocating time for staff training, and ensuring that assistive technology is embedded within the school's SEND strategy rather than left to individual teacher initiative. Their commitment has ensured consistency across the school and supported a culture where inclusion is prioritised and systematically planned for, rather than reactive.

This work has also been strengthened through effective multi-agency collaboration. The Qualified Teacher of the Deaf has provided specialist guidance on communication strategies, classroom acoustics and appropriate use of technology. In addition, liaison with external audiology services ensures that equipment is correctly calibrated and meets Amir's audiological needs. Where appropriate, input from speech and language therapy services will also support broader language development targets. This coordinated approach ensures that educational, clinical

and specialist perspectives are aligned, leading to more coherent and effective provision for Amir.

### **Example 3: Secondary**

This example illustrates how assistive technology can be integrated into subject teaching to ensure equitable access to the curriculum while maintaining high expectations for all pupils. Mr. Thompson's approach shows how digital resources and targeted adaptations can operate within whole-class teaching, enabling both inclusive participation and individualised support.

Mr. Thompson is teaching a Year 10 GCSE Geography class. In his class, several pupils have sensory or physical needs: one pupil uses a wheelchair and has limited fine motor control, while another is hard of hearing and relies on an FM system (Frequency Modulation) to help them hear speech more clearly in the classroom.

Mr. Thompson has worked closely with occupational therapists (OT) and assistive technology specialists who have suggested a number of strategies. Mr. Thompson provides digital versions of all source materials, allowing pupils to interact with texts and resources on tablets rather than in print. The pupil with fine motor difficulties uses a stylus and speech-to-text software to take notes and complete source analysis questions, enabling independent work without struggling to write by hand.

For the pupil with hearing difficulties, Mr. Thompson liaises with the pupil's audiologist regularly to ensure the FM system is functioning and he checks it before each lesson. He also pairs it with captioned video clips. Finally, on the advice of the Speech and Language Therapist (SaLT), he faces the class when speaking and repeats key points for clarity. He notices these last two approaches actually seem to boost the engagement of all pupils.

Visual supports, such as annotated timelines and diagrams, are displayed on the board and on tablets, providing multiple ways to access information. During group discussions, a trained support assistant is paired with each pupil with additional needs to assist with technology or communication as required, ensuring participation without drawing attention to their differences.

Teaching assistants have also received training from the SENCo and SaLT on how to use the different assistive tools in this classroom. They circulate to prompt use of the tools, scaffold analysis, and model strategies for structuring responses.

Finally, Mr. Thompson regularly checks that devices are working correctly and reviews the effectiveness of strategies at the end of the lesson, adjusting supports to meet the pupils' ongoing needs. By integrating assistive technology and targeted support,

all pupils are able to access the GCSE Geography curriculum, participate meaningfully, and develop independence in their learning.

### Example 3 analysis

In this lesson, Mr. Thompson demonstrates how assistive technology, classroom adaptations and additional adults can be used effectively to support pupils with sensory and/or physical needs. He has worked closely with external specialists and internal colleagues to ensure the tools being used provide the right support for individual pupils.

By providing digital texts, speech-to-text tools and styluses, pupils with fine motor difficulties are able to record their ideas independently and engage fully with written tasks. The use of FM systems, captioned videos and careful teacher positioning ensures that hard of hearing pupils can clearly access spoken information. What's more, this example illustrates how inclusive practices can benefit all pupils by improving access to verbal information through clearer visual and auditory cues.

Mr. Thomson recognises the need to ensure that the assistive technology works and by building in a regular check, this means that the classroom environment remains inclusive at all times.

Visual supports and carefully planned paired working create multiple ways for all pupils to participate, while trained teaching assistants are effectively used to scaffold learning rather than replace teacher input. This enables pupils to work independently and with confidence.

The approaches used show how a combination of technology, classroom organisation and adult support can be used to remove barriers to learning and promote inclusion, reflecting the evidence highlighted by Davis et al. (2004) on the importance of using a range of strategies to meet diverse sensory and physical needs.



### Example 4 – Post 16

In this example, Mr. Howe works with an external specialist to identify assistive technology and visual adaptations he can use to support two pupils in his Year 12 History class who are struggling to engage with the longer historical sources.

Over the last term, when teaching his Year 12 History class, Mr. Howe noticed that two of his pupils were struggling to engage with and complete reading longer historical sources. He found several other pupils were reluctant to engage reading historical sources too. Whilst they understood the topics well, this was beginning to affect their progress when responding to exam questions.

To support these pupils, he first spoke with the Educational Psychologist who works with the school. They discussed how to make the sources more accessible using a combination of assistive technology and visual adaptations.

All source materials were provided digitally, allowing pupils to access them on laptops or tablets. Pupils used text-to-speech software to listen to the sources aloud, helping them process complex information without being slowed down by decoding difficulties. To reduce visual stress and improve focus, Mr. Howe offered pupils a choice of dyslexia-friendly fonts and soft-coloured backgrounds, giving them multiple options for reading in a way that suited them. This also encouraged them to take more of a lead in selecting appropriate assistive tools.

Pupils were guided to engage with the sources actively: key paragraphs were highlighted, and important terms were underlined or annotated with brief explanations. They could pause, rewind, or replay sections using the text-to-speech tool, allowing them to check comprehension and take notes at their own pace.

For group activities, pupils worked with a trained support assistant to discuss the content they had read, ensuring that they could participate in analysis and evaluation even if reading took longer. Visual supports, such as annotated timelines and diagrams, were provided alongside the texts to help pupils organise information and see connections between events.

Pupils then used text-to-speech to listen to their own essays before redrafting. Hearing their writing aloud helped them identify unclear phrasing, repetition or underdeveloped argument. Lessons typically concluded with a structured improvement task: pupils identified one target linked to argument, one linked to evidence and one linked to evaluation, and made tracked edits to demonstrate progress.

### Example 4 analysis

Mr. Howe's approach to supporting pupils with literacy difficulties is effective because it combines his understanding of pupils' individual learning needs with adaptations informed by specialist advice. Regular collaboration with external specialists helps ensure that these adaptations are appropriate, targeted, and impactful, supporting pupils to access the curriculum more fully.

## Introduction to Assistive Technology

Pupils with dyslexia often struggle with decoding dense text (Snowling, 2019) and maintaining focus over extended reading tasks (Snowling and Hulme, 2022). By providing digital versions of sources, incorporating text-to-speech software, and using dyslexia-friendly fonts and coloured backgrounds, Mr. Howe reduces cognitive load, improves readability, and allows pupils to process complex historical information at their own pace.

The use of assistive technology is particularly impactful because it enables multi-sensory access to content: pupils can listen, follow along visually, and pause or replay material as needed. Highlighting key paragraphs and providing annotations also supports working memory and ensures that pupils focus on the most important information—a strategy reinforced by advice from dyslexia specialists.

Additionally, integrating visual supports, such as annotated timelines and diagrams, complements the auditory strategies, allowing pupils to make connections between events and consolidate understanding.

By combining these approaches with structured peer support and targeted scaffolding from teaching assistants, Mr. Howe creates an inclusive learning environment in which pupils with literacy difficulties can meaningfully engage with historical sources, participate in discussion, and develop the independent study skills necessary for success in GCSE and A-Level History.

### Time to reflect

**As you conclude this section, take a moment to reflect on how the examples of assistive technology might shape your own classroom practice.**

- How was assistive technology used within high-quality teaching rather than as an add-on in the examples you explored?
- What is one specific way you could incorporate assistive technology into an upcoming lesson to scaffold access and independence while maintaining high expectations for all learners?

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## Next steps

### Revisit your reflection and RAG rate confidence and knowledge

Now that you have read the material, revisit your responses from earlier and identify what has shifted. The purpose here is to notice any changes to help you pinpoint your next steps.

### RAG rate each reflection statement again using the criteria below:

- **Red** – I'm not confident yet and my understanding is limited.
- **Amber** – I'm developing my confidence and understanding.
- **Green** – I'm confident and have good understanding.

### Reflection statements

1. I understand what assistive technology is and how it can scaffold access to the same curriculum.
2. I know which pupils in my classes may benefit from assistive technology and why.
3. I am aware of the assistive tools already available on the devices or platforms we use in my school.
4. I can select and model an appropriate assistive tool to support reading, writing or organisation.
5. I can introduce assistive technology in ways that normalise use and build independence.
6. I can evaluate whether an assistive tool is genuinely improving access and learning.

### Create your personalised action plan

As you reflect on the content of this introduction, you may wish to identify one or more of the following action steps you could put in place moving forward:

1. **Identify one barrier to learning in your classroom**
  - Reflect on where pupils struggle to access learning – such as: stamina with reading or writing, organisation of ideas or responding to feedback.
  - Consider where assistive technology could scaffold this barrier to make the classroom more inclusive whilst still maintaining expectations.
2. **Review what is already available in your school**
  - Explore the built-in tools on Word, Windows, Google Docs, Teams, Apple software or other devices.

- Check whether text-to-speech, speech-to-text, dictation, captioning or colour filters are enabled. You may need to speak to the IT support in your school, if you are unsure how to do this.
- Identify one tool you could trial without introducing new systems.
- Find out what support might be available through your local authority. Some councils provide access to digital assistive technology at a local level, for example, through the SEND & AP lending libraries pilot.

### 3. **Be intentional: which tool and why?**

- Match a specific tool to a specific need. You may wish to speak to the SENCo or external specialists if you need support.
- Be explicit about the intended outcome. For example, increased independence, improved accuracy, greater fluency or more effective organisation and planning.
- Avoid introducing multiple tools at once and be ready to adapt your approach if it is not demonstrating sufficient impact.
- Familiarise yourself with how to use the tool before using it with pupils.
- Plan how you will introduce it to pupils and scaffold their use in lessons.

### 4. **Work alongside the SENCO, colleagues and other professionals**

- Check whether there are agreed approaches already in place.
- Align your classroom implementation with wider school practice.
- Work with the SENCO and specialists to ensure assistive technology is used consistently and effectively to support pupils' learning across all lessons.
- Share what you are trialling in department meetings.
- Ask how others are embedding assistive technology.
- See how you can coordinate use across subjects to promote consistency

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### Further support

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