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Education Services**

**Technical Assistance Document  
Oklahoma Procedures for Providing  
Accessible Educational Materials (AEM)**



**OKLAHOMA  
Education**

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## What are Accessible Educational Materials? (AEM)

Some students with disabilities have difficulty reading and accessing standard print learning materials such as textbooks and supplementary materials. A student with a visual impairment, for example, may not be able to read a standard print textbook and would likely require larger print or braille to read independently. A student with a physical disability, who is unable to hold and turn the pages of a standard textbook, may benefit from having an audio or digital version of a textbook. A student with a reading disability may better comprehend information that is displayed on a computer or a tablet while the text is read aloud by a computer voice.

To be successful in school, these students and others like them need learning materials in specialized formats called Accessible Educational Materials (AEM).

### This guide was created to explain:

- The process for making decisions about AEM;
- Why a student may need AEM;
- What types of specialized formats are available;
- How AEM are acquired;
- What supports are necessary to effectively utilize AEM; and
- What can be done to promote the use of AM for students.

With this knowledge, school districts, educators, and families can ensure that students with disabilities have access to the materials they need to participate in class and achieve academically.

AEM can help students with disabilities access the same content as their peers and be successful in school. Because of provisions in IDEA, specialized formats are more readily available to students who cannot read or use a standard textbook. Reading this document, learning more information and sharing it with others are important steps to ensuring that students with disabilities have access to accessible materials needed for their school participation and achievement.

### A Change in Terminology: AIM is now AEM

In 2014, the terminology related to providing specialized formats to students was changed from Accessible Instructional Materials (AIM) to Accessible Educational Materials (AEM) to convey a more inclusive meaning beyond standard print such as digital materials.



## Accessible Educational Materials and the Law

Authors and Publishers are entitled under U.S. Copyright Law to reproduce their materials or to authorize others to reproduce the works. Copyright holders also have a legal right to prevent others from reproducing their works without permission. This right is limited by the 1931 Act to Provide Books to the Adult Blind, and the Chafee Amendment.

Print disability is defined within U.S. copyright law under the provisions of the **1931 Act to Provide Books to the Adult Blind**, as Amended. Under this Act, individuals with a print disability are those who have been certified by a competent authority to be unable to read or use standard print materials because of:

- Blindness
- Visual impairment
- Physical limitations, or
- Reading disabilities (such as dyslexia) resulting from an organic dysfunction

The **Chafee Amendment** (17 U.S.C. § 121 [1]) allows reproduction and distribution of educational materials in specialized formats such as braille, large print, audio and digital exclusively for use by individuals with print disability.

17 U.S. Code § 121 - Limitations on exclusive rights: Reproduction for blind or other people with disabilities

(a) Notwithstanding the provisions of section 106, it is not an infringement of copyright for an authorized entity to reproduce or to distribute copies or phonorecords of a previously published, nondramatic literary work if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities.

### IDEA 2004

The Individuals with Disabilities Education Act (IDEA), as reauthorized in 2004, requires that elementary and secondary school students with disabilities who need print instructional materials in an accessible format receive them in a timely manner. This means that school districts must take reasonable steps to provide accessible educational materials (AEM) to eligible students with disabilities without delay, typically at the same time as other students receive educational materials. Each state has the responsibility to define “in a timely manner.” Oklahoma has defined it as “at the same time as other students or to the greatest extent possible.”

### 34 CFR §300.5 Assistive Technology Device

“Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device.”

### 34 CFR §300. 24(a)(2) Development, Review, and Revision of IEP (2) Consideration of Special Factors.

“The IEP Team shall — (v) Consider whether the child needs assistive technology devices and services.”

### What are Print Instructional Materials?

“Print instructional materials” include printed textbooks and related print core materials that are written and published primarily for use in elementary and secondary school instruction and are required by a state or local education agency (LEA) for use by students in a classroom. Such materials often include workbooks and other supplemental materials packaged with the textbook by the publisher.

## Who provides Assistive Technology (AT)?

Assistive technology (AT) is technology used by individuals with disabilities in order to perform functions that might otherwise be difficult or impossible. The federal regulations for implementation of IDEA define AT devices and services and require Individualized Education Program (IEP) teams to consider the assistive technology needs of students during the development, review, and revision of an IEP. IDEA also requires schools to provide AT if it is needed for a student to receive a free appropriate public education (FAPE). The emphasis on FAPE is that the student is able to function well enough to make reasonable educational progress. FAPE can include a variety of services such as special education, related services, supplementary aids and services, program modifications or support for school personnel. AT, just like all other components of FAPE, must be provided at no cost to parents. Local Education Agencies (LEAs) must provide or pay for any AT necessary to ensure FAPE, either directly or through contract or other arrangements. The schools may not unnecessarily delay the provision of AT devices and services due to funding issues if a child requires the devices and services to benefit from the IEP.

### ADA and Section 504

Two other federal laws relate to provision of AEM/ AT by addressing the obligation of all public schools to meet the communication needs of students with disabilities: Title II of the Americans with Disabilities Act of 1990 (Title II), and Section 504 of the Rehabilitation Act of 1973(Section 504).

**Title II** is a civil rights law that prohibits discrimination against individuals with disabilities in areas of employment, public services, public accommodations, transportation, and communication.

Title II requires schools to ensure that students with disabilities receive communication that is as effective as communication with others through the provision of auxiliary aids and services. In many cases, but not all, an IEP will meet the requirements of Title II.

Under Title II, “communication” includes all kinds of information exchange – reading, writing, listening and speaking. Effective communication can require a technology support instead of a human support because the technology support allows a student to perform tasks independently, thus achieving “effective communication” as is required by Title II.



**Section 504** prohibits discrimination against individuals with disabilities and requires schools to provide equal access to their programs and services. Section 504 requires that school districts provide a free appropriate public education (FAPE) to qualified students who have a physical or mental impairment that substantially limits one or more major life activities, regardless of the nature or severity of the disability. AT is referred to under Section 504 within “special education and related aids and services”. A student is not required to be eligible for special education services to be protected under Section 504.

### Section 508 and Oklahoma’s Electronic and Information Technology Accessibility Act

**Section 508 of the Rehabilitation Act** requires federal agencies to procure, develop, and maintain accessible information technology to ensure effective and usable information technology and digital materials for all individuals, including those with disabilities. Oklahoma adopted the federal 508 standards and passed

**Electronic and Information Technology Accessibility** legislation, which went into effect in 2005, mandating compliance by all state agencies, higher education, and CareerTech Centers. Acquiring educational materials that have been approved for purchase by the Oklahoma Textbook Adoption Committee will help to ensure that all students receive the materials they require.

**Note:** “Effective communication” required by Title II can be a higher standard and require additional assistive technology even when a student’s need for an “appropriate” education under the IDEA and Section 504 definitions of FAPE has been met.



## NIMAS and NIMAC

The **National Instructional Materials Accessibility Standard (NIMAS)** is a standard file format established by IDEA that was created to make it easier for students with disabilities to access learning materials in the formats they need as quickly as possible. Electronic files of books created using the NIMAS are designed to be easily converted into specialized formats including braille, large print, audio, and digital text. IDEA also mandated the establishment of the **National Instructional Materials Access Center (NIMAC)**, a national repository for publisher source files of textbooks and related core printed materials that are created according to the NIMAS technical specification. Oklahoma coordinates with the NIMAC as a means to provide specialized formats to qualifying students in a timely manner.

### Who is Qualified to Receive NIMAS Textbooks?

Under the Chafee Amendment, individuals certified by a competent authority as having a print disability are entitled to receive AEM from a variety of sources. However, access to materials created from NIMAS files textbooks is limited to individuals who are certified as having a print disability and are on an Individualized Education Program (IEP), meaning the student has undergone an evaluation and is, or will be, receiving special education services under IDEA.

### How do you get NIMAS files?

The files that publishers submit to the NIMAC are not ready for student use, but must be converted to student ready formats by Accessible Media Producers (AMPs). AMPs are authorized to convert instructional materials into specialized formats of braille, large print, audio and digital. In addition to NIMAS source files, AMPs may produce materials submitted by a variety of other sources, such as individuals, schools, and publishers.



Local Educational Agencies (LEAs) are responsible for obtaining textbooks and other educational materials from AMPs. Bookshare, Learning Ally, and Liberty Braille are examples of AMPs that regularly convert NIMAS files into accessible formats for use by Oklahoma public school students who have print disability.

Additional entities designated by the state of Oklahoma as Authorized Users of the NIMAC include ABLE Tech, the AIM Center at the Oklahoma Library for the Blind and Physically Handicapped, and the Oklahoma School for the Blind.

## **How can we ensure that Print Instructional Materials are available through the NIMAC?**

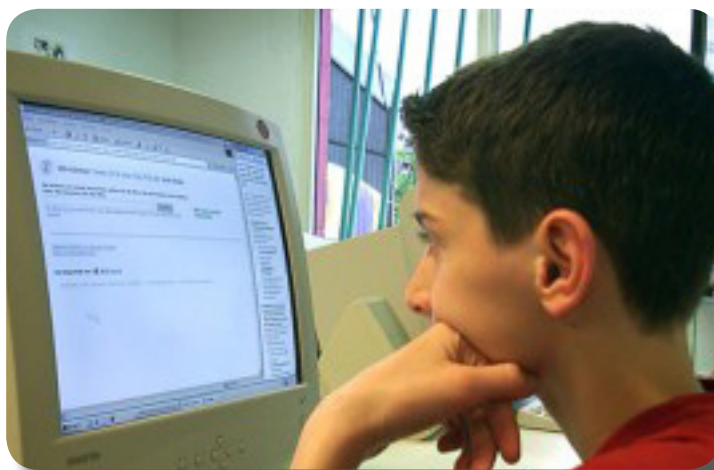
Purchase orders made by state and local education agencies should include language that requires publishers to submit NIMAS-conformant files to the NIMAC for each specific title purchased, or provide assurances that they have already done so. Contract language must also ask publishers to use the MathML3 Structure Guidelines recommended by the NIMAC. MathML3 structure increases the accessibility of math and science textbooks. Contracts for purchase of digital instructional materials should also include the requirement that the materials be accessible to individuals with print disability. By including specific language in purchase contracts, education agencies obligate publishers to submit source files to the NIMAC, helping to ensure that students with print disabilities who are on IEPs receive appropriate accessible versions of educational materials in a timely manner. For more information about MathML3 and NIMAS formats visit [www.aem.cast.org](http://www.aem.cast.org). Sample contract language is included below and can also be found at [okabletech.okstate.edu/AEM.html](http://okabletech.okstate.edu/AEM.html).

### **Recommended contract or purchase order language for print materials (textbooks and related core instructional materials):**

By agreeing to deliver the materials marked with “NIMAS” on this contract or purchase order, the publisher agrees to prepare and submit, on or before \_\_\_/\_\_\_/\_\_\_\_\_ a NIMAS fileset to the NIMAC that complies with the terms and procedures set forth by the NIMAC. The publisher also agrees to mark up materials eligible for NIMAS submission that contain mathematical and scientific instructional content by using the MathML3 (refer to latest applicable version) module of the DAISY/NIMAS Structure Guidelines as posted and maintained at the DAISY Consortium web site (<http://www.daisy.org/z3986/structure/SG-DAISY3/index.html>). Should the vendor be a distributor of the materials and not the publisher, the distributor agrees to immediately notify the publisher of its obligation to submit NIMAS filesets of the purchased materials to the NIMAC. The files will be used for the production of specialized formats as permitted under the law for students with print disabilities. For additional information about NIMAS: <http://aim.cast.org/collaborate/NIMASctr>. For additional information about the NIMAC: <http://nimac.us>.

### **Contract or purchase order language for digital instructional materials (commercial & open education resources):**

Vendor represents that the digital instructional materials delivered under this contract or purchase order conform to, at a minimum, the standards for accessibility as set forth in— Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794d), and its implementing regulations (36 C.F.R. § 1194), or Web Content Accessibility Guidelines (WCAG) 2.0 (minimum of Level AA conformance). Should any portion of the materials not conform to the aforementioned standards of accessibility, vendor agrees to provide a written explanation of the reason for non-conformance. Submission of a complete Voluntary Product Accessibility Template (VPAT) will satisfy the requirement to provide a written explanation. Vendor further agrees to provide alternative means for access to the instructional materials during the period of non-conformance to students who may qualify in accordance with the Act entitled “An Act to provide books for the adult blind” approved March 3, 1931 (2 U.S.C. 135a).





## Decision Process for Accessible Educational Materials (AEM)

There are five steps members of an Individualized Education Program (IEP) team should take to ensure that a student receives specialized formats that are needed for educational participation and achievement. The IEP team should:

1. Establish need for instructional materials in specialized formats.
2. Select which type of specialized format(s) are needed by the student.
3. Determine how to acquire needed formats in a timely manner.
4. Consider what supports are needed for effective use of the specialized formats by the student.
5. Document need for, and plans relating to, specialized format(s), assistive technology, training and support in student's IEP.

### Establishing Student Need for AEM

Students with a variety of disabilities may need AEM. Students who could otherwise understand the content but are unable to read or use standard materials may need to access that content through specialized formats, which include braille, large print, audio, and digital text.

An IEP team should consider a variety of factors when determining whether a student needs materials in a specialized format. First, the IEP team should consider whether the student can read and use the standard materials used by the other students.

- If the answer is “yes,” specialized formats would not be needed at this time, and the team should continue with the development of the IEP.
- If the answer is “no,” the team should then determine if the student needs exactly the same content in one or more specialized formats or if the student needs alternative materials with modified content.

When thinking about a student's possible need for specialized formats, the IEP team might consider, along with other factors, the student's sensory, physical, and cognitive capability; reading level (decoding, word recognition, comprehension, and fluency skills); grades; classroom performance; and levels of academic proficiency in all subject areas.

### Specific Questions the Team Might Ask Include:

- Can the student see the material well enough to read the information on a level comparable to other classmates?
- Can the student physically manipulate the material without a lot of effort?
- Does the student have the necessary stamina to read standard materials for extended periods of time?
- Does the student have the decoding, fluency, and processing skills needed to gain information from grade-level printed materials

Answering “no” to any of these questions might indicate that a student needs the instructional materials in specialized formats.

If there are cognitive concerns as well, the student may need modified or alternative materials.

### Specialized Formats vs. Alternative Materials

- Specialized formats include the same content as a printed textbook or other instructional material but change the way the content is presented to the student. No information is added or removed.
- Alternative materials address the same educational goals as the standard document, but the content is modified (usually made less complex) so that the student can better understand it. Some students may need alternative materials with modified content in specialized formats in order to access them.

## Selecting Specialized Formats

If the IEP team determines that a student needs AEM, the next step is to select which specialized format would be most appropriate. The four types of specialized formats are braille, large print, audio, and digital text.

Students may require more than one format depending on their needs, the instructional material, and the environments in which they will access the text. For example, a student may use a digital format of her language arts textbook at school, an audio format of assigned novels at home, a large print book for math, and a digital textbook for history. The IEP team will select the formats that are needed for each print instructional material. In making the decision, the team should consider which format will best enable the student to:

- Access information contained in the standard materials
- Work as independently as possible
- Develop literacy skills
- Participate in educational activities

The student's preferences, language, vision, memory, listening skills, tactile skills, and English proficiency should also be considered. A student will typically need a trial period with different formats to determine which are most effective and preferred in different environments for various reading tasks. Oklahoma ABLE Tech provides free short- term assistive technology loans to help students and teachers determine the right fit.

- **Braille** is a tactile system of reading and writing made of raised dot patterns for letters, numbers, and punctuation marks. This format is used almost exclusively by people with visual impairments or blindness. Braille format refers to embossed braille, which is a permanent printed document. Refreshable braille displays use a type of digital text format.
- **Large print** is generally defined as 18 point or larger font size. A document produced in large print format usually has more white space and may not look like the original document, but it contains the same information. Large print may be printed on pages that are the same size as a standard textbook page or on pages of a larger size.
- **Audio** formats present content as sound with no visual component. Audio formats can include recorded human voice or synthesized electronic speech.
- **Digital text** provides electronic content that is delivered on a computer or another device. Electronic content may be changed in many ways (e.g., size, contrast, read aloud) to accommodate the needs and preferences of a student. How content is presented to a user depends upon the technology being used and student needs. Refreshable braille displays work with the digital format called Braille Ready Format (.brf).



## Accessibility Features of Digital Text

What makes digital text accessible? Book reading software and apps offer features to improve comprehension. Digital text, when delivered on a computer or other device, can provide many accessibility options which can be manipulated to control how text is presented to a student. Many text-to-speech software programs have the capability to provide text and audio simultaneously or separately. This format not only provides flexible access to the information contained in printed materials, but many text-to-speech software programs also have built-in learning supports than can increase learning and literacy for some students.

Many software programs and apps feature the ability to have text read aloud with highlighting, which may help to improve focus and reading comprehension. In many cases, the student is able to customize the highlight colors, as well as the text and background colors to suit individual preferences.

The following are some of the features that may be manipulated depending on the technology being used:

- Font size/type/color
- Background color
- Synchronized highlighting as text is read
- Text-to-speech
- Voice speed
- Navigation

## Audio Supported Reading

Audio-supported reading (ASR) is a technology-based approach for accessing and working with text presented in either braille or enlarged (magnified) print. This approach allows a user to listen to a spoken version of text while looking at screen-displayed print or touching braille. In ASR, both the rate of information pick up and the portion of attention paid to braille or print—in combination with speech—can be controlled by the user. With sufficient practice, both braille readers and magnified print readers can greatly increase the rate at which they move through text using ASR.



## Assessment Tools

Does the student need AEM, and if so, which specialized format(s) and technology are required? Interactive tools can be used by teams to help with decisions about accessible educational materials.

### AIM Navigator

The AIM Navigator from the National Center on Accessible Educational Materials facilitates decisionmaking about AEM for an individual student by IEP or other decision-making teams. The four decision points in the process include 1) determination of need, 2) selection of format(s), 3) acquisition of formats, and 4) selection of supports for use. The Navigator provides support for decision-making at each point by providing guiding questions, resources, and links to other tools. The AIM Navigator collects information and creates a summary “to do” list. [www.aim.cast.org/navigator](http://www.aim.cast.org/navigator).

### AIM Explorer

The AIM Explorer is a free downloadable simulation tool that combines grade-leveled digital text with access features common to most text readers and supported reading software. Settings for magnification, colors of text and background, text-to-speech, text highlighting, and layout options can be manipulated to help educators, families, and struggling readers decide ways in which these supports can be configured to help with access to and understanding of text.

The AIM Explorer collects information and prepares a summary that can be printed or saved to a local computer. [http://aim.cast.org/experience/decisionmaking\\_tools/aim\\_explorer](http://aim.cast.org/experience/decisionmaking_tools/aim_explorer).

### Protocol for Accommodations in Reading (PAR)

For a student determined to need read-aloud, is recorded human voice or synthetic speech best? The Protocol for Accommodations in Reading (PAR) is an assessment developed by Dr. Denise DeCoste and Linda Bastiani Wilson in collaboration with Don Johnston, Inc. to assist educators in determining the optimal reading accommodation for students who need materials read aloud. The PAR includes narrative and expository reading passages and scoring forms. The assessment has three parts: silent reading, human read-aloud, and synthesized speech read-aloud.

The Oklahoma State Department of Education requires that students be assessed using the PAR prior to receiving a read-aloud accommodation on state tests. Don Johnston, Inc. offers the PAR free of charge in print form or as an online, fee-based service. Both print and online versions of the PAR can be accessed at <http://donjohnston.com/par/#>. The online version includes recorded human voices and synthesized speech. To administer the synthesized speech portion using the print version, schools can use the built-in text-to-speech feature of their computer’s operating system, or a free online text-to-speech generator such as Natural Reader, <http://www.naturalreaders.com/>.





## Acquiring AEM

Local Education Agencies (LEAs) can acquire AEM from the following:

- Accessible media producers (AMPs)
- Publishers
- Other sources
- Locally created

### AMPs

Accessible Media Producers (AMPs) create specialized formats of instructional materials from files received from the NIMAC, as well as from materials submitted by publishers or education agencies. Bookshare, Learning Ally, and Liberty Braille are examples of AMPs that regularly convert NIMAS filesets into accessible formats for use by Oklahoma public school students who have print disability.

**Note:** AMPs can only convert materials for individuals with print disability because their authority to reproduce copyrighted materials is based on the Chaffee Amendment which applies specifically to individuals with print disability. The exception to this is that copyright-free materials may be accessed by anyone, regardless of disability status.

**Tip for Educators:** You can acquire AEM on behalf of your students through AMPs such as Bookshare, Learning Ally, and Liberty Braille. Contact the AMP directly for assistance. Bookshare, [www.bookshare.org](http://www.bookshare.org), is free for K-12 Public Schools and students who qualify. Learning Ally, [www.learningally.org](http://www.learningally.org), offers services on a scaled-fee basis. Liberty Braille provides large print and braille materials free to K-12 students, as funds allow, through a contract with the Oklahoma State Department of Education.

**Tip for parents:** If you believe your child needs AEM, request that your local education agency (LEA) assess your child's need for a specialized format and consider assistive technology and other supports required. While individual memberships are available through Bookshare and Learning Ally, certain instructional materials, such as NIMAS textbooks, can only be obtained by educators on behalf of students through an organizational membership.

### Oklahoma AEM Providers

The following providers are available to help with AEM services and assistive technology:

- Oklahoma ABLE Tech (Assistive Technology and Information Services Program) 800.257.1705 or 405.744.9748 [www.okabletech.okstate.edu/AIM/](http://www.okabletech.okstate.edu/AIM/)
- The AIM Center at the Oklahoma Library for the Blind and Physically Handicapped 800.523.0288 or 405.521.3514 [www.library.state.ok.us/aim/](http://www.library.state.ok.us/aim/)
- Bookshare [www.bookshare.org](http://www.bookshare.org)
- Learning Ally [www.learningally.org](http://www.learningally.org)
- Liberty Braille 800.920.3369 or 405.562.3996 [www.libertybraille.com](http://www.libertybraille.com)
- Oklahoma School for the Blind for in-house students. 877.229.7136 <http://osb.k12.ok.us/>



## Publishers

Upon request by a state or local education agency (LEA), a publisher may be willing to provide a digital file or grant permission to copy and scan materials, with the understanding that use of materials created from the file will be limited to students with print disability. Some publishers provide digital versions of instructional materials that can be purchased along with, or instead of, printed books. This can be very useful if the digital version contains the same information as the printed book rather than supplementary material.

## Other Sources

Books from the sources listed below may not be accessible to all users. Some include features such as recorded human voices, synthesized speech, and navigation.

- Audible: [www.audible.com](http://www.audible.com)
- Amazon: [www.amazon.com](http://www.amazon.com)
- American Printing House for the Blind: [aph.org](http://aph.org)
- Audio Editions: [www.audioeditions.com](http://www.audioeditions.com)
- Blackstone Audio, Inc, [www.blackstoneaudio.com](http://www.blackstoneaudio.com)
- LibriVox: [librivox.org](http://librivox.org)
- National Library Service for the Blind and Physically Handicapped: [loc.gov/nls](http://loc.gov/nls)
- Barnes and Noble: [www.barnesandnoble.com](http://www.barnesandnoble.com)
- OverDrive: [www.overdrive.com](http://www.overdrive.com)
- Project Gutenberg: [www.gutenberg.org](http://www.gutenberg.org)

Materials with expired copyrights and in the public domain are available in digital format from many sources, often free of charge.

“Open source” materials can be acquired, customized, and used with any student free of charge, or for a small fee. The IEP team must verify that an open source material is accessible. Information about Open Source materials is available from the CK-12 Foundation, <http://www.ck12.org/>.

**Note:** The fact that a material is in a digital format does not necessarily mean that the material is accessible. For example, digital text that cannot be highlighted, read aloud with synthesized speech, or converted to electronic braille would be inaccessible to some students.

AEM can be acquired from a variety of sources; however, not all students are eligible to receive materials from each of the sources. U.S. copyright laws require individuals to have a certified “print disability” in order to receive specialized formats of copyrighted materials from some sources. However, if an IEP team has determined that a student needs accessible educational materials in order to receive a free appropriate public education (FAPE), the school must provide specialized formats even if the student does not have a print disability as defined by copyright statute. In such cases, the LEA could:

- Contact the publisher to request accessible materials,
- Use assistive technology to render the materials accessible, i.e. scan the materials and provide synthesized speech,
- Use “open source” materials, or
- Use copyright-free (public domain) materials

## Locally Created

Although specialized formats are increasingly available through accessible media producers and commercial sources, the “do-it-yourself” method of creating materials - often by scanning the material or by creating it on a computer and saving it as digital text - remains a way to meet the needs of some students for certain materials. For example, teacher-made materials will almost always need to be created in this manner. When an accessible version of a published, copyrighted material is created in this way, copyright law must still be respected. The safest approach is to ask permission from the publisher.

## Supports Needed for AEM

The IEP team should determine whether any of the following supports are needed for a student to effectively use the selected AEM:

- Technology
- Training
- Instructional strategies
- Support services
- Accommodations or modifications

### Technology

After selecting the specialized formats and determining how to acquire them, the team should decide what types of technology or tools are needed for a student to use the accessible materials. Information about the specific formats and features needed by the student, along with how and where the student will use the accessible materials, can be helpful when choosing among the various technology tools that might be used to deliver the specialized formats.

Oklahoma's AEM service providers help schools, students, parents, and guardians determine which device(s) and/or software will be most effective with the specialized format used by a student. As Oklahoma's Assistive Technology Act Program, ABLE Tech offers device loans for up to six weeks for trial purposes. After the loan term is complete, it is the responsibility of the local education agency (LEA) to acquire equipment listed in a student's IEP. The AIM Center and Liberty Braille offer school-term loans of select assistive technology devices. Bookshare and Learning Ally also offer free software for use with specialized formats.

### Training

The amount of training required for the student to use AEM will vary according to the complexity of the technology or tool selected to access the specialized formats. For example, use of a large print book would

not require much training. However, if a student is using text-to-speech software or a refreshable braille display to access digital text, he or she may need to learn more advanced skills. Teachers, other school staff, and families may also need training in order to support the child at school and at home. Students may also need additional types of training, such as to learn when to use a particular format or tool for a specific learning task or how to ask for needed supports when they are not readily available.

### Instructional Strategies

Educators may need to use various instructional strategies to support students using specialized formats and supporting technologies. When a student first begins using these tools, instruction should include multiple opportunities for the student to understand the purpose, benefits, and outcomes of using the tools. It is helpful to start by providing opportunities for the student to use the tools to successfully complete familiar learning tasks (possibly in a single environment). Gradually building on early successes and slowly introducing the complexity of the tools will enable the student to master them and work as independently as possible on learning goals in a variety

of environments. Educators and families will need to work together to support the student's use of accessible materials and to monitor the change in the student's participation and achievement.

### Support Services

A student's IEP should describe any support services needed for effective use of various specialized formats and who is responsible for providing them. Different support services may be needed for different formats. For example, a student using braille may require specialized instructions from a qualified teacher of the visually impaired, and a student with a physical disability may need the support of an occupational therapist or physical therapist. Additional supports such as case management, classroom organization and arrangement, equipment management and maintenance and file acquisition may also be needed.



## Accommodations and Modifications

The use of AEM may require accommodations or modifications to a student's education program. For example, a student may need preferential seating or additional time to complete tasks due to the time required to use a specialized format. A student may need frequent breaks to avoid fatigue. A student may need to provide responses orally rather than in writing, or he or she may be allowed to submit fewer responses. The team should consider which accommodations or modifications will be necessary when writing the IEP.



### AEM and AT in the IEP

There are several sections of the Individualized Education Program where it is appropriate to include information about the need for specialized formats and associated assistive technology and services, including Special Education, Related Services, and Supplementary Aids and Services. For more information about including assistive technology in the IEP, see the Technical Assistance Document Assistive Technology for Children and Youth with Disabilities IDEA Part B, and the Special Education Process Guide.

### What can a parent do if the school is not providing a child what the parent thinks is needed?

- Arrange to meet with the IEP or 504 team or the school's Title II or 504 Coordinator.
- Consider using the school district's published disability grievance procedures.
- Under the IDEA, a parent challenging the provision of FAPE may request mediation, may file a complaint with the State educational agency, or may request an impartial administrative hearing by filing a due process complaint.
- Under Title II, a parent may choose to file a lawsuit in court. Parents of an IDEA-eligible student generally must exhaust the administrative hearing procedures of the IDEA, which means obtaining a final decision under the IDEA's impartial due process hearing procedures, before filing a lawsuit seeking a remedy that is also available under the IDEA.
- The U.S. Department of Education Office of Civil Rights (OCR) and the Department of Justice (DOJ) Civil Rights Division both investigate complaints of disability discrimination at schools.
- To learn how to file a complaint with OCR, call 800-421-3481 (TDD: 800-877-8339), email [ocr@ed.gov](mailto:ocr@ed.gov), or go to [www.ed.gov/ocr/complaintintro.html](http://www.ed.gov/ocr/complaintintro.html).
- To learn how to file a complaint with DOJ, call 800-514-0301 (TTY: 800-514-0383), email [ADA.complaint@usdoj.gov](mailto:ADA.complaint@usdoj.gov), or go to [www.ada.gov/fact\\_on\\_complaint.htm](http://www.ada.gov/fact_on_complaint.htm).

*The following examples are presented to illustrate how an LEA could provide AEM for various students:*

### **Example 1**

A ninth-grade student who is blind is enrolled in Oklahoma History, English Literature, Physical Science, Algebra I, and French. His IEP team has determined that he needs digital text for Oklahoma History, Physical Science, and French; audio for English Literature; and embossed braille for Algebra I. The student will also need audio versions of several novels required for English Literature.

The teacher of the visually impaired (TVI) contacts ABLE Tech for help determining which AEM providers can supply the student's educational materials in the needed formats and for assistance in determining what assistive technology will be necessary for the student to use the desired specialized formats.

The TVI contacts Liberty Braille to request the student's Algebra 1 textbook in embossed braille. Liberty Braille sends the textbook to the school for the student to use and return upon completion of the Algebra 1 course.

The school borrows a refreshable braille display and an audiobook player for up to six weeks from ABLE Tech for assessment purposes. ABLE Tech verifies the student's print disability and then downloads digital text and audiobooks from Bookshare and Learning Ally on behalf of the student for use with the AT.

The school's Director of Special Education obtains organizational memberships in Bookshare (free to school) and Learning Ally (scaled-fee), and then adds the TVI as a sponsor on these accounts. The TVI registers the student as a member under the organizational accounts. She then searches for and downloads the student's Oklahoma History, Physical Science, French, and English Literature textbooks in braille ready format (.brf) from Bookshare. The TVI also downloads the novels required for English Literature in audiobook format from Learning Ally.

### **Example 2**

A second-grade student with a reading disability is determined to need her materials for reading, science, and social studies in a digital format to be read on a portable device with a text-to-speech feature. The school has an organization membership with Bookshare and the teacher is registered as a sponsor.

The teacher documents the student's print disability and registers her as a member under the school's organizational Bookshare account for access to digital text.

The teacher contacts ABLE Tech to discuss assistive technology for reading digital text, such as tablet computers with accessible book reading apps and laptops with literacy software.

The teacher decides to borrow a tablet computer with an accessible book reading app. ABLE Tech verifies the print disability and downloads requested books into the app and ships to the school so that the IEP team can assess the student reading books.

After determining that the tablet is a suitable device for the student, and that she is successful using the book reading app, the IEP team determines that the school will purchase the tablet and app for this student. The IEP team also determines that the student will have access to the tablet at home so that she can read library books at home, as her non-disabled peers are expected to do.



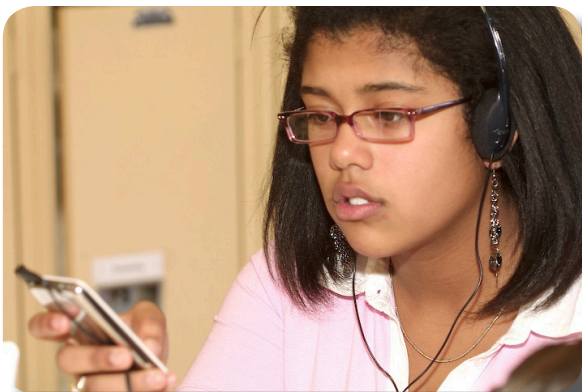


### Example 3

A teacher of the Visually Impaired (TVI) is seeking to determine if a sixth-grade student who currently receives large print textbooks from Liberty Braille would benefit from the use of an iPad with digital text for some of her educational materials.

The TVI contacts ABLE Tech to borrow an iPad for a trial loan. ABLE Tech coordinates with Liberty Braille to verify the print disability and downloads requested books from Bookshare into an accessible book reading app and ships the device to the school for assessment purposes.

After determining that the iPad with the accessible book reading app is a good solution for the student, the TVI borrows an iPad from Liberty Braille for the student to use for the remainder of the school-term. The TVI also adds the student to the school's organizational Bookshare membership and assists the student's family in obtaining an individual membership so that the student can access additional reading materials throughout the year.



### Example 4

The IEP team has determined that an eleventh-grade student who is reading below grade-level and whose primary language is Spanish needs educational materials in digital format to be read with text-to-speech.

Since this student does not have a qualifying print disability, she is not eligible to receive NIMAS materials. However, IDEA 2004 requires that schools provide accessible instructional materials to students who need them.

The school's textbook purchaser requests a digital copy from the publisher or permission to copy and scan this student's materials into electronic text.

The teacher also contacts ABLE Tech for assistance in considering assistive technology to convert the student's educational materials to synthesized speech. The teacher decides to borrow a scan and read system and an iPad for a six-week trial to assess with the student.

During the trial, the IEP team determines that the scan and read system works better for the student than the iPad, and that the school will purchase the device for use in the classroom.

The IEP team decides that they will monitor the student's progress using the scan and read device at school, and if necessary will consider allowing the student to use the device at home.



## Steps to Promote AEM

Teachers, school officials, parents, and advocates can help facilitate the use of specialized formats by:

- Sharing information about AEM and available supports;
- Using a decision-making process during the development of the IEP to determine if students need AEM;
- Learning about the process for obtaining materials from the NIMAC, accessible media producers and other sources;
- Communicating with IEP teams and school administrators about accessible materials that are often available to eligible students free of charge; and
- Collaborating with local and state education agencies to urge publishers to offer accessible versions of textbooks for purchase.

## Why Aren't More Instructional Materials Available for Purchase in Accessible Formats?

Some publishers have said that few educational agencies are asking for accessible materials for purchase, but that may be because people do not know they exist.

To increase the availability of AEM for purchase, school staff and parents are encouraged to contact publishers to ask for accessible versions of textbooks that can be purchased.

## Universal Design for Learning (UDL) and the PALM Initiative

UDL refers to principles for curriculum development that give all individuals equal opportunities to learn. According to the National Center on Universal Design for Learning, UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution, but rather flexible approaches that can be customized and adjusted for individual needs. Find out more about UDL at <http://www.udlcenter.org/>.

PALM stands for Purchase Accessible Learning Materials, and the PALM Initiative's goal is to increase the likelihood that materials purchased for use in the classroom are designed to be usable by all students from the start. Following the guidelines of the PALM Initiative is one way to promote accessible educational materials. Find out more at <http://aem.cast.org/supporting/palm.html>.



### Additional AEM Resources

- National Center on Accessible Educational Materials: [www.aem.cast.org/](http://www.aem.cast.org/)
- National Instructional Materials Access Center: [www.nimac.us](http://www.nimac.us)
- NIMAS Information from the U.S. Department of Education, IDEA Part B: [idea.ed.gov/explore/home](http://idea.ed.gov/explore/home)
- United States Department of Education Individuals with Disabilities Education Act (IDEA): [idea.ed.gov](http://idea.ed.gov)
- Accessible Instructional Materials Technical Guide for Families and Advocates, National Center on Accessible Instructional Materials at CAST: [www.pacer.org/publications/stc.asp](http://www.pacer.org/publications/stc.asp)
- Audio-Supported Reading for students who are blind or visually impaired <http://aem.cast.org/supporting/audio-supported-reading.html>

## Provision of AEM Workflow

For every student on an IEP or 504 Accommodations Plan:

1. Consider need for AEM. (Use AIM Navigator.)
2. If need exists, document print disability category and obtain necessary certification;
3. Determine specialized format(s) needed. (Use AIM Explorer, PAR.)
4. Consider assistive technology (AT) device(s) and software necessary for using specialized format. (Utilize ABLE Tech Loan Program.)
5. Document need for specialized format and related AT in IEP. Determine who will be responsible for maintaining AT device(s) including installing software updates, and replacing or recharging batteries.
6. Contact Accessible Media Provider (AMP) to request materials in specialized format on behalf of student. For braille or large print, contact Liberty Braille. For audio or digital, obtain organizational membership with Bookshare or Learning Ally, register student, and download textbooks and other educational materials on student's behalf. (Contact ABLE Tech for assistance.)
7. Contact publisher(s) if necessary to request accessible materials or permission to copy materials on behalf of students not qualified to receive materials from an AMP, or for materials that are not available from an AMP.
8. Assist parent/guardian in obtaining individual membership for student in Bookshare or Learning Ally for access to additional reading materials. (Contact ABLE Tech for assistance.)
9. Train student, teachers, support staff, and parent/guardian in procedures for acquiring and reading AEM, and proper use and maintenance of AT.
10. Monitor student progress, consider if specialized format and AT are adequate, and consider other specialized formats or AT as needed. Document progress in IEP.

### Best Practices for provision of AEM and Related AT

<i>Below Minimum</i>	<i>Minimum</i>	<i>Best Practice</i>
Not meeting IDEA Requirements	Meeting IDEA Requirements	Meeting IDEA Requirements
Not considering AEM/AT for every student on IEP	Considering AEM/AT for every student on IEP	Considering AEM/AT for every student on IEP
Not providing AEM/AT for every student who needs it	Providing AEM/AT for every student who needs it	Providing AEM/AT for every student who needs it
		Assisting students in obtaining memberships in organizations that provide accessible books so that they can self-select reading materials.

## Case Law Related to AEM

*The following cases are provided as examples of litigation related to the provision of AEM and Related AT.*

### Case 1

**Student:** High school junior has a learning disability but is able to perform at a high level when permitted to listen, rather than read, school materials. Receives accommodations on a 504 plan (Editor note: Stand-alone text-to-speech software is readily available to schools for use with digital text. Additionally, schools can obtain instructional materials which include a text-to-speech feature for qualified students from Bookshare and Learning Ally.)

**School's Participation:** Materials for some classes are made accessible to the student using text-to-speech programs that read material out loud. With higher-level math and chemistry classes, a more advanced software is needed to scan and read the equations and symbols. School agreed to scan math materials to use with the text-to-voice software, but made the student responsible for scanning and translating chemistry and some history materials.

**Problem:** School was considered in violation of the ADA, Section 504 of the Rehabilitation Act of 1973 for denying nondiscriminatory access to education.

**Results:** Student was awarded a temporary restraining order that required the school district to provide scanned, accessible materials for chemistry using the advanced text-to-voice program.

*L.G. Port Townsend School Dist. No. 50, 112 LRP 46490 (WD Washington 2009)*

### Case 2

**Student:** Eighth grader with learning disabilities on an IEP needed Kurzweil and What You Need Now (WYNN) literacy software and audiobooks to provide him access to education. (Editor note: Kurzweil and WYNN literacy software products include many features such as text-to-speech, customizable reading speed, dictionary, talking spell checker, word prediction, graphic organizer, highlighters, and voice input.)

**School's Participation:** School included information about the student needing assistive technology into the IEP.

**Problem:** School did not provide the assistive technology that was determined as needed for the student to access his education.

**Results:** School was considered in violation of IDEA for not providing a FAPE.

*Miller Vs. Board Of Education of the Albuquerque Public Schools, 565 F.3d 1232, (10th Cir. 2009)*

### Case 3

**Student:** Ninth grader with autism, a speech-language impairment, and former diagnosis of intellectual disability on an IEP transitioned from a middle school building to a high school building within the same school district. Student previously used an iPad to achieve educational goals (Editor note: iPads include many accessibility features, including voice input, text-to-speech, screen magnification, closed captions, switch control, and guided access. Additionally, many software applications are designed to assist and/or teach individuals with disabilities, including apps for speech, organization, note-taking, and sound recording.)

**School's Participation:** School indicated in the student's IEP the need for an iPad to achieve educational goals. School provided student with an iPad for educational purposes in middle school. When the transfer of the iPad did not occur in a timely manner from the middle school, student was provided a Kindle Fire to use at the high school.

**Problem:** Technical difficulties, including licensing issues, delayed the transfer of the iPad to the student at the high school until March of the ninth grade year. Once the student received the iPad, the support teacher and one-on-one aide were not trained in using the iPad as assistive technology to support the student.

**Results:** School was considered in violation of IDEA for not providing a FAPE. The district was ordered to contract with a private speech pathologist and/or an expert in iPad educational application technology to research, acquire, and teach the student, parent, teachers, and aide how to use appropriate educational applications to assist the student in a variety of ways and how these applications can be useful in supporting the IEP goals.

*School District of Philadelphia, 114 LRP 37532 (Pennsylvania SEA 2014)*



# Accessible Educational Materials (AEM) Student Data Form



**Please provide the following information to assist us in obtaining accessible reading materials on behalf of your student:**

Student's Name \_\_\_\_\_ Date of Birth \_\_\_\_\_  
Last First

Requesting Teacher/School District \_\_\_\_\_

Grade: \_\_\_\_\_ IEP?  Yes  No 504 Plan?  Yes  No

*In order to qualify for National Instructional Materials Accessibility Standard (NIMAS) sourced materials, student must have an Individualized Education Program (IEP). Other AEM services are available to students who are not on IEP, and to students without a qualifying impairment. Contact ABLE Tech for more information.*

## **Qualifying Impairment:**

- Visual Impairment or Blindness
- Physical Limitations
- Learning Disability

*The type of professional accepted as Competent Authority varies according to the source of materials as well as the type of impairment. Examples include a family doctor or other medical professional, ophthalmologist, optometrist, teacher of the visually impaired, special education teacher, physical therapist, resource specialist, learning disability specialist, school psychologist and clinical psychologist with a background in learning disabilities. Please consult the source of materials (e.g., Bookshare, Learning Ally) for specific direction.*

\_\_\_\_\_  
Signature of Competent Authority

\_\_\_\_\_  
Printed Name and Title

## **Accessible Educational Materials Requested:**

For each item requested, please provide the following information. Attach additional pages as needed:

Title: \_\_\_\_\_

Author(s): \_\_\_\_\_

ISBN: \_\_\_\_\_ Copyright Date: \_\_\_\_\_ Grade Level: \_\_\_\_\_

Publisher: \_\_\_\_\_



