Accessible Instructional Materials (AIM)

What are Accessible Instructional Materials (AIM)?

AIM are educational materials that provide all students the same opportunity to learn the same information, engage in the same interactions, at the same time. Ensuring accessibility of all materials provides all students a level playing field and meets the needs of all learners. As classrooms incorporate more digital technology, it becomes increasingly important that all materials used in the classroom are designed to be accessible by all students. This includes hardware, software, web-based resources, and both print and digital instructional materials.

Why Provide AIM?

AIM allow students with disabilities to participate in the general education curriculum by providing access to information contained in instructional materials in formats from which students can gain meaning. Universal Design for Learning (UDL) is an educational practice that is meant to reduce barriers in instruction and provides needed supports for all students, while maintaining high achievement expectations. In order to incorporate UDL practices, it is imperative that schools also incorporate universal design in procurement, purchasing, and creation of all instructional products to reduce barriers from the start. While UDL is an educational practice, universal design describes a framework for designing and delivering products and services that are usable by students with the widest range of capabilities. Products that are universally designed are directly accessible without assistive technologies or are interoperable with assistive technologies. Incorporating materials and products that are universally designed into UDL practices will ensure that all students, including those with disabilities or diverse learning styles, will benefit.

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) requires State and local education agencies to ensure that textbooks and related core instructional materials are provided to students with disabilities in specialized formats in a timely manner.

Education Article §7-910 Annotated Code of Maryland and COMAR 13A.05.02.13H requires that specifications used in all grants and procurement contracts for technology-based instructional products require equivalent access for students with disabilities. Ensuring that equivalent access standards are included in guidelines used for design specifications, evaluation, selection, and procurement of all instructional products supports the inclusion of student with disabilities and reduces the need for accommodations.
What are indicators of accessibility?

- All hardware and content must be able accessible by students with disabilities without assistive technology or it is interoperable with assistive technologies.

- The Web Accessibility Initiative (WAI) created four primary principles that are the basis for the Web Content Accessibility Guidelines and help us understand what accessibility means. These include:
  
  - **Perceivable**: Content is represented in multiple ways so it can be based on what students might need or prefer (captions, alt text for graphics, audio, text-to-speech, electronic braille).
  
  - **Operable**: Navigation is possible via visual (mouse and cursors) and non-visual means (keyboard, voice), location and progress supports are included (page numbers, progress bars), there are multiple ways to enter text (on-screen keyboards, voice input), and timing and pace can be controlled.
  
  - **Understandable**: Content is predictable and logical and at an appropriate level for students, supports and scaffolds are available (glossaries, highlighters, spellcheckers), and feedback on errors and progress is provided.
  
  - **Robust**: Content can be used and is tested with multiple devices and with different assistive technologies and there is nothing that prevents access to built-in accessibility features or assistive technologies (Digital Rights Management).

What are resources for accessibility?

- Section 508 Technology Standards: [https://www.section508.gov/index.cfm?fuseAction=stdsSum](https://www.section508.gov/index.cfm?fuseAction=stdsSum)

- Web Accessibility Initiative (WAI) Standards: [http://www.w3.org/WAI/](http://www.w3.org/WAI/)


What do you need to consider for AIM and what are resources for accessibility?

- **Hardware**: Desktops, laptops, tablets, e-readers, student response systems, whiteboards
  - Tablets and E-readers Resources for accessibility
    - Office of Civil Rights (OCR) letter regarding accessibility of electronic book readers: [http://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.pdf](http://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.pdf)
    - Office of Civil Rights (OCR) FAQs regarding accessibility electronic book readers: [http://www2.ed.gov/about/offices/list/ocr/docs/504-qa-20100629.pdf](http://www2.ed.gov/about/offices/list/ocr/docs/504-qa-20100629.pdf)

- **Software**: all software used for instruction

- **Multimedia** see “Sources of Accessible Media”
  - Video: [http://aim.cast.org/learn/accessiblemedia/video](http://aim.cast.org/learn/accessiblemedia/video)
  - Audio: [http://aim.cast.org/learn/accessiblemedia/audio](http://aim.cast.org/learn/accessiblemedia/audio)
  - Images: [http://aim.cast.org/learn/accessiblemedia/images](http://aim.cast.org/learn/accessiblemedia/images)
  - Also see “Sources of Accessible Media”

- **Web-based**: school and teacher-created websites, blogs, wikkis, file-sharing sites, email, learning platform systems, apps, curriculum materials, textbooks, online learning modules, and assessment materials
  - What is Web Accessibility? [http://www.w3.org/Talks/wai-components/all.htm#(1)](http://www.w3.org/Talks/wai-components/all.htm#(1))
  - WAI Evaluation Tools List: [http://www.w3.org/WAI/ER/tools/complete](http://www.w3.org/WAI/ER/tools/complete)

- **Print Textbooks**
  - Determine if the student needs specialized formats for educational participation, independence, and achievement. These include braille, large print, audio, and digital.
  - Determine how the student will use the specialized formats.
    - What specialized format is needed and in what content areas will the format(s) be used?
    - What assistive technology (AT) is needed to utilize AIM?
    - How will the student learn to use the AT and AIM?
  - Determine the acquisition process.
    - What are the sources for acquiring AIM?
      - See “Accessible Media Producers”
      - See “Sources of Commercial Electronic Text and Audio”
    - What specialized format does the source provide?
    - What is the Accessible Media Producer’s (AMPs) registration process?
    - Who can register with the AMP?
    - Does the AMP have membership fees?
    - What team member will be responsible for process?
    - Does the student need IEP goals/objectives to learn to use the AT or AIM?
Inventory Accessible Instructional Materials (AIM) Guidance for Purchasers

How can local school systems develop a systemic approach to ensuring AIM is provided?

- Develop Organization Policies and an Implementation Plan for Accessibility.
  - Web Accessibility Initiative Policy and Implementation Plans: [http://www.w3.org/WAI/impl/pol](http://www.w3.org/WAI/impl/pol) and [http://www.w3.org/WAI/impl/](http://www.w3.org/WAI/impl/)
  - National Center on Disability and Access to Education, “Gaining Online Accessible Learning through Self-Study (GOALS)” Institutional Plans: [http://ncdae.org/goals/](http://ncdae.org/goals/)

- Develop purchasing policies that includes AIM.
  - Require all material products and materials purchased to be fully accessible and aligned with accessibility standards (WCAG 2.0 Level AA compliance and Section 508) and able to be converted into specialized formats.
  - Include language in Adoption Contracts and Purchase Orders that includes both accessibility and ability to convert to specialized formats. Sample:
    - Vendor presents that the products and/or materials delivered under this contract or purchase order conform to the standards for accessibility as set forth in Section 508 of the Rehabilitation Act of 1973 and the Web Content Accessibility Guidelines (WCAG) 2.0 at a Level AA of conformance.
    - In order to facilitate the production and acquisition of specialized formats for students with print disabilities, the publisher agrees to prepare and submit, a National Instructional Materials Accessibility (NIMAS) file set to the National Instructional Materials Access Center (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 file sets of the purchased products to the NIMAC. The publisher/vendor shall provide a copy of the NIMAC Certification once the file is uploaded and confirmed.
Accessible Media Producers

Accessible Book Collection
Accessible Book Collection
12847 Point Pleasant Drive
Fairfax, VA US 22033
Telephone (703) 631-1585
Fax (206) 600-7957
Email Address: customerservice@accessiblebookcollection.org
http://www.accessiblebookcollection.org/

What do they provide? High interest/low reading level novels in digital files in HTML.
Who can register? Must be print-disabled under Chaffee Amendment in one of the categories below:
- Blind
- Visually Impaired
- Physical Limitations
- Reading Disability

Are there membership fees? Qualified subscribers include non-profit or government schools in the United States. Students or others with a qualifying disability may also subscribe. The cost of an annual subscription is $49.95. School district site licenses are available. There is a minimum of 10 schools to qualify for a district site license. For 10 to 20 schools the price is $42.00 per school per year. For 21 to 49 schools the price is $35.00 per school per year. For 50 schools and above the price is $28.00 per school per year. Add additional schools may be added to an existing license later; however, all subscriptions will expire one year from the original district site license subscription. Other cooperative buying entities may qualify for school district site licenses. Individual students must be registered and documented as having a print disability.

American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206
Phone: (800) 223-1839
Fax: (502) 899-2219
Web: http://www.aph.org

What do they provide? Textbooks and novels in braille and large print.
Which student eligibility categories do you serve?
- Blind
- Visually Impaired

Students who are legally blind are registered in the APH annual census as required by The Federal Act to Promote the Education of the Blind, enacted by Congress in 1879. This act is a means for providing adapted educational materials to eligible students who meet the definition of blindness. An annual registration of eligible students determines a per capita amount of money designated for the purchase of educational materials produced by APH. These funds are credited to federal quota accounts which are maintained and administered by APH and its ex officio trustees throughout the country. The Maryland Instructional Resource Center for Students with Visual Impairments serves as the trustee of funds for Maryland. Maryland has identified APH as an Authorized User of the NIMAC.
Books Aloud
P.O. Box 5731
San Jose, CA 95150-5731
Phone: (408) 808-2613
FAX: (408) 808-2625
Web: http://www.booksaloud.org/
What do they provide? Audio novels that play on standard cassette tape or CD players. Books are sent through the mail.
Which student eligibility categories do you serve? Must be print-disabled under Chaffee Amendment in one of the categories below:
- Blind
- Visually Impaired
- Physical Limitations
- Reading Disability
Are there membership fees? No.

Bookshare
480 So. California Avenue, Suite 201
Palo Alto, CA 94306-1609
Phone: (650) 644-3400
Fax: (650) 475-1066
Web: http://www.bookshare.org
What do they provide? Textbooks and novels in DAISY or BRF formats
Which student eligibility categories do you serve? Must be print-disabled under Chaffee Amendment in one of the categories below:
- Blind
- Visually Impaired
- Physical Limitations
- Reading Disability

With an organizational membership, authorized teachers or staff members (sponsors) may download books for their registered students (members). In addition, a student can have an individual membership, authorized by his or her parents. For books created with NIMAS files, a student must be enrolled in a K–12 program with an IEP and these books must be downloaded for the student through the institutional membership. Maryland has identified Bookshare as an Authorized User of the NIMAC.
Are there membership fees? Currently, Bookshare offers free memberships to qualifying U.S. students through an award from the U.S. Department of Education, Office of Special Education Programs (OSEP).
Maryland Instructional Resource Center for Students with Visual Impairments
Maryland School for the Blind
3501 Taylor Avenue
Baltimore, MD 21236
Phone: (410) 444-5000
Fax: (410) 319-5706
Web: http://www.mdschblind.org/statewide_braille.asp
What do they provide? Textbooks and novels in large print and braille.
Who can register? Which student eligibility categories do you serve?
- Blind
- Visually Impaired
The Maryland Instructional Resource Center for Students with Visual Impairments (MIRC) is a partnership between the Maryland State Department of Education, the Maryland School for the Blind (MSB), and the twenty-four Local School Systems (LSSs). The MIRC serves as a centralized depository, searching, ordering, and shipping facility for large print and braille textbooks, novels, and instructional materials for PreK-12 students with visual impairments in Maryland. The IRC serves as the American Printing House for the Blind (APH) Ex Officio Trustee for the Federal Quota census and funds. Maryland has identified the MIRC as an Authorized User of the NIMAC. LSSs may submit search requests to the MIRC for registered students to request books for loan and/or purchase. LSSs are billed for purchased books at a discounted rate.
Are there membership fees? No.

Maryland Library for the Blind and Physically Handicapped
415 Park Avenue
Baltimore, Maryland 21201
Phone: 800-964-9209
Fax: 410-333-2095
Web: http://www.lbph.lib.md.us/
What do they provide? Novels in large print, braille, and audio formats
Who can register? Which student eligibility categories do you serve? Must be print-disabled under Chaffee Amendment in one of the categories below:
- Blind
- Visually Impaired
- Physical Limitations
- Reading Disability/Organic
Are there membership fees? No.
Learning Ally
20 Roszel Road
Princeton, NJ 08540
Phone: (800) 221-4792
Fax: (609)520-7990
Web: [http://www.learningally.org/](http://www.learningally.org/)

What do they provide? Textbooks and novels in audio format on CD or downloadable DAISY
Which student eligibility categories do you serve? Must be print-disabled under Chaffee Amendment in one of the categories below:
- [x] Blind
- [x] Visually Impaired
- [x] Physical Limitations
- [x] Reading Disability/Organic

Maryland has identified Learning Ally as an Authorized User of the NIMAC.

Are there membership fees? School memberships are offered at different levels to accommodate the needs of your students.

Other sources of AIM

Sources of Commercial Electronic Text

Alex Catalogue of Electronic Texts
The B&R Samizdat Express
Bartleby.com: Great Books Online
Berkeley Digital Library
Bibliomania—Free Online Literature and Study Guides
BiblioVault
Books24x7
California Digital Library—Repositories
Curriki
Digital Book Index
eBook Locator
eBooks.com
ebrary
Electronic Text Center at the University of Virginia Library
eReader.com
Fictionwise
Franklin Electronic Publishers
The Internet Archive
Internet Public Library
Mobipocket.com
The National Academies of Science Press
NetLibrary
The Online Books Page
O'Reilly's Safari Bookshelf
Project Gutenberg
Safari Books Online
SafariX
Wikibooks

Sources of Commercial Audio

Audible.com
Blackstone Audiobooks
Free Classic Audiobooks
Learn OutLoud
Librivox
LoudLit
NetLibrary
OverDrive
Sources of Accessible Media

Captioned Videos

A captioned video is one that has captioning for persons who are deaf/hard of hearing. Captioning is the exact text on the screen that is spoken. Ideally, captioning is synchronized with spoken text. Providing a text document of the script may provide the information, however it does not provide equal access since a person needs to look at the document while also viewing the video. Captioned videos are indicated by the symbol 🎥. In most cases, a viewer is able to click to turn the captioning on and off by clicking on the symbol. Additional options or settings to choose the font style, size, etc may also be available.

Harkle is a search engine to locate captioned video and audio on the internet matched to a search request.

iTunes U provides educational videos, some of which are captioned.

YouTube Captioned YouTube videos are available by searching (using the steps listed below) the YouTube website.

1. Search the key terms of the video or type of video you want to watch.
2. From the search results page, click on ‘Filter’.
3. Under ‘Filter’ select the ‘Closed captions’ option.
4. The results will now be filtered to display all videos with closed captions.

22frames is a search engine to locate captioned/subtitled videos.

Audio Described Video

Audio description is the verbal depiction of key visual elements in media and live productions. Audio description provides a person with a visual impairment a narrative addition to give information about the actions, reactions, scenery, or other important information presented visually that are critical to the understanding of the content. The addition of audio description should be imbedded in such a way that it provides the information clearly and succinctly without interfering with the audio. The symbol 🎧 indicates that an audio description is provided for a media or performance.

The Described and Captioned Media Program provides a search engine to locate captioned and described media.