# OPEN EDUCATIONAL RESOURCES ACCESSIBILITY CHECKLIST

## 1. Organizing Content

This section has two checklist items to ensure that content is organized within title, body, headings and subheadings so the digital content is easily readable via screen readers, increased maneuverability via keyboard navigation and the text is enlargeable.

### Checklist Items:

Reviewed Content is organized under headings and subheadings.

Headings and subheadings are used sequentially (e.g., Heading 1, Heading 2, etc.).

#### Techniques:

List of techniques for organizing content:

* HTML: [Page Structure Concepts](https://www.w3.org/WAI/tutorials/page-structure/) , [WebAIM: HTML semantic structure](https://webaim.org/techniques/semanticstructure/)
* Microsoft Word: [Best Practices making Word Documents Accessible by Microsoft](https://support.office.com/en-us/article/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d#picktab=macos) , [WebAIM: Microsoft Word](https://webaim.org/techniques/word/)
* PDF**:** [Create and verify PDF accessibility, Acrobat Pro](https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html#make_PDFs_accessible) , [WebAIM: PDF Accessibility](https://webaim.org/techniques/acrobat/)
  + For scanned PDF documents perform an [Optical Character Recognition (OCR)](https://www.w3.org/TR/WCAG20-TECHS/PDF7.html):   
    [Adobe Acrobat](https://helpx.adobe.com/acrobat/how-to/scan-to-searchable-pdf.html?playlist=/services/playlist.helpx/products:SG_ACROBAT_DC/learn-path:get-started/set-header:ccx-designer/playlist:basictraining/en_us.json&ref=helpx.adobe.com), [Office Copiers](https://oip.manual.canon/USRMA-1569-zz-CS-4500-enUS/contents/devu-scan-useful-ocr.html#699_h1_01), [Office Lens](https://support.office.com/en-us/article/microsoft-office-lens-for-ios-fbdca5f4-1b1b-4391-a931-dc1c2582397b), [OneNote](https://support.office.com/en-us/article/copy-text-from-pictures-and-file-printouts-using-ocr-in-onenote-93a70a2f-ebcd-42dc-9f0b-19b09fd775b4) , ([OCR in OneNote video](https://youtu.be/tVeiRVdwBT8))

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.3 Adaptable](https://www.w3.org/TR/UNDERSTANDING-WCAG20/content-structure-separation.html) , [1.3.1 Info and Relationships](https://www.w3.org/TR/UNDERSTANDING-WCAG20/content-structure-separation-programmatic.html)  
  [Guideline 2.4: Navigable](https://www.w3.org/WAI/WCAG21/Understanding/navigable): [2.4.6 Headings and Labels](https://www.w3.org/WAI/WCAG21/Understanding/headings-and-labels.html)
* IITAA 2.0 Standards: [E205 Electronic Content](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc11) , [Code & Content](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-1)

## 2. Images

This section has four checklist items to ensure that content has images with alt-text embedded which will enable textual descriptions of the image to be conveyed via screen-reading technologies.

### Checklist items:

Images that convey information include Alternative Text (alt-text or alt-tags) descriptions of the image’s visual contents.

Graphs, Charts and Maps include supporting details in the text surrounding the image.

Images do not rely solely on color to convey information.

Images that are purely decorative contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn’t convey contextual content information).

#### Techniques:

List of techniques for working with images:

* HTML: [Web Accessibility Tutorials: Image Concepts](https://www.w3.org/WAI/tutorials/images/) , [WebAIM: Alternative Text](https://webaim.org/techniques/alttext/)
* Microsoft Word: [Add alt text to visuals in Office 2016](https://support.office.com/en-us/article/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d#bkmk_winaltvisuals2016) , [Office 365](https://support.office.com/en-us/article/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d#bkmk_winaltvisuals)
* Complex Images**:** [Portland Community College Complex Images for all Learners handbook (PDF)](https://www.pcc.edu/instructional-support/wp-content/uploads/sites/17/2017/11/complex-images.pdf)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.4: Distinguishable](https://www.w3.org/WAI/WCAG21/Understanding/distinguishable): [1.4.5 Images of Text](https://www.w3.org/TR/2016/NOTE-UNDERSTANDING-WCAG20-20161007/visual-audio-contrast-text-presentation.html) , [1.4.9 Images of Text (No Exception)](https://www.w3.org/TR/2016/NOTE-UNDERSTANDING-WCAG20-20161007/visual-audio-contrast-text-images.html)
* IITAA 2.0 Standards: [E205 Electronic Content](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc11)

## 3. Tables

*This section has four checklist items to ensure that the information conveyed via tables contain appropriate logical reading sequences for screen-reading technologies.*

### Checklist Items:

Tables include row and column headers.

Tables include title or caption.

Tables do not have merged or split cells.

Tables have adequate cell padding.

#### Techniques:

* HTML: [Web Accessibility Tutorials: Tables](https://www.w3.org/WAI/tutorials/tables/) , [WebAIM Creating Accessible Tables](http://webaim.org/techniques/tables/)
* Microsoft Word: [Create accessible tables in Word](https://support.office.com/en-us/article/video-create-accessible-tables-in-word-cb464015-59dc-46a0-ac01-6217c62210e5)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.3 Adaptable](https://www.w3.org/TR/UNDERSTANDING-WCAG20/content-structure-separation.html): [1.3.1 Info and Relationships](https://www.w3.org/TR/UNDERSTANDING-WCAG20/content-structure-separation-programmatic.html)
* IITAA 2.0 Standards: [E205 Electronic Content](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc11) , [Tables](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-5)

## 4. Hyperlinks or Web Links

*This section has three checklist items to ensure that weblinks that are provided throughout the materials are discernible and readable (e.g., via embedded links instead of fully parsed HTML addresses and/or brief descriptions) by screen-reading technology.*

### Checklist Items:

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| --- |
| The weblink is meaningful in context, does not use generic text such as “click here” or “read more”.  Weblinks do not open to windows or tabs.  If the weblink must open in a new window, a textual reference is included in the link information (e.g., “[…] – link opens to a new window”) |

#### Techniques:

* HTML: [WebAIM Links and Hypertext](https://webaim.org/techniques/hypertext/)
* Microsoft Word: [Add hyperlink text and ScreenTips](https://support.office.com/en-us/article/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d#bkmk_winlinksscreentips)
* IITAA 2.0: [Links](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-4)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 2.4: Navigable](https://www.w3.org/WAI/WCAG21/Understanding/navigable): [2.4.4 Link Purpose (In Context)](https://www.w3.org/WAI/WCAG21/Understanding/link-purpose-in-context) , [2.4.7 Focus Visible](https://www.w3.org/WAI/WCAG21/Understanding/focus-visible)   
  [Guideline 3.2: Predictable](https://www.w3.org/WAI/WCAG21/Understanding/predictable): [3.2.4 Consistent Identification](https://www.w3.org/WAI/WCAG21/Understanding/consistent-identification)
* IITAA 2.0 Standards: [E205 Electronic Content](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc11)

## 5. Multimedia

*This section has three checklist items to ensure that multimedia content (e.g., videos) contain an accessible means of conveying the information that is shared via the multimedia format.*

### Checklist Items:

A transcript has been made available for the resource that includes audio narration or instruction.

Captions of all speech content and relevant non-speech content are included in the multimedia resource, which also includes audio synchronization with a video presentation.

Audio descriptions of contextual visuals (graphs, charts, etc.) are included in the multimedia resource.

#### Techniques:

* World Wide Web Consortium (W3C): [Multimedia Accessibility FAQ](https://www.w3.org/2008/06/video-notes) , [Scalable Vector Graphics (SVG) Techniques](https://www.w3.org/2000/10/wcag2-svg-techs-020318)
  + [Success Criteria for Guideline 1.2 Time-based Media](http://www.w3.org/WAI/WCAG20/quickref/#media-equiv)
* IITAA 2.0: [Multimedia](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-8) , [IL-WEB-3.3 Provide full descriptions for complex images](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-3.3)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.2 Time-based Media](https://www.w3.org/WAI/WCAG21/Understanding/audio-only-and-video-only-prerecorded.html) , [1.2.2 Captions (Prerecorded)](https://www.w3.org/WAI/WCAG21/Understanding/captions-prerecorded)  
  [Guideline 1.4: Distinguishable](https://www.w3.org/WAI/WCAG21/Understanding/distinguishable) , [Guideline 1.4.2 Audio Control](https://www.w3.org/WAI/WCAG21/Understanding/audio-control.html)
* IITAA 2.0 Standards: [502 Interoperability With Assistive Technology](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc37) , [503 Applications](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc38) , [504 Authoring Tools](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc39)

## 6. Formulas

*This section has two checklist items to ensure formulas are accessible within exercises, quizzes, tests and digital text.*

### Checklist Items:

Formulas have been created using MathML.

Formulas are images with alternative text descriptions, if MathML is not an option.

#### Techniques:

* [Accessible Education Materials: Accessible Math](http://aem.cast.org/creating/accessible-math.html)
* [W3C Math Home](https://www.w3.org/Math/) , [Math on the Web](https://www.w3.org/standards/webdesign/math.html) , [W3C MathML FAQ](https://www.w3.org/Math/mathml-faq.html)
* PennState Accessibility: [MathML and MathJax](https://accessibility.psu.edu/math/mathml/)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.1: Text Alternatives](https://www.w3.org/WAI/WCAG21/Understanding/text-alternatives): [1.1.1 Non-text Content](https://www.w3.org/TR/2016/NOTE-UNDERSTANDING-WCAG20-20161007/understanding-techniques.html)
* IITAA 2.0 Standards: [502 Interoperability With Assistive Technology](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc37)

## 7. Font

*This section has four checklist items to ensure fonts are discernable by assistive technology and font size can be enlarged, expanded, and reflowed within digital text.*

### Checklist Items:

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| Font type is either Verdana or Arial (sans serif).  Font size is 12 point or higher for body text.  Font size is 9 point for footnotes or end notes.  Font size can be zoomed to 200%. |

#### Techniques:

* World Wide Web Consortium (W3C): [G146: Using liquid layout](https://www.w3.org/WAI/WCAG21/Techniques/general/G146.html) , [G178: Providing controls on the Web page that allow users to incrementally change the size of all text on the page up to 200 percent](https://www.w3.org/TR/2016/NOTE-WCAG20-TECHS-20161007/G178)
* IITAA 2.0: [Styles](https://www.dhs.state.il.us/page.aspx?item=97051#il-web-2)
* WebAIM: [Accessible CSS](https://webaim.org/techniques/css/) , [Fonts](https://webaim.org/techniques/fonts/)

#### Scope of Practice:

* WCAG 2.0 Standards: [Guideline 1.4: Distinguishable](https://www.w3.org/WAI/WCAG21/Understanding/distinguishable): [1.4.4 Resize Text](https://www.w3.org/WAI/WCAG21/Understanding/resize-text.html) , [1.4.8 Visual Presentation](https://www.w3.org/WAI/WCAG21/Understanding/visual-presentation) , [1.4.10 Reflow](https://www.w3.org/WAI/WCAG21/Understanding/reflow)
* IITAA 2.0 Standards: [E205 Electronic Content](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc11) , [502 Interoperability With Assistive Technology](https://www.dhs.state.il.us/page.aspx?item=96985#a_toc37)