Guidelines for the SkillsCommons Accessibility Checkpoints:
Helping TAACCCT Grantees Understand and Evaluate the Accessibility of their OER

A SkillsCommons' goal to provide equally effective access to our website, products, and technologies for all users, including those with disabilities.

SkillsCommons is committed to providing an equal opportunity for all to benefit from the open educational resources within the SkillsCommons library. We strive to reduce barriers to delivering educational content on a timely basis to all. SkillsCommons endeavors to provide free and open access to instructional and program support materials that meet Section 508 Guidelines (http://www.section508.gov/) across the collection of resources developed by TAACCCT Grantees. Section 508 of the Rehabilitation Act of 1973 requires that U.S. governmental agencies with information technology products meet specified levels of compliance with accessibility standards. SkillsCommons is committed to support this progressive standard for information technology design and development and support TAACCCT grantees meeting these accessibility standards for their OER contributions.

BACKGROUND on the Accessibility Checkpoints:

The accessibility checkpoints were developed by the California State University and MERLOT (Multimedia Educational Resources for Learning and Online Teaching) to help TAACCCT grantees evaluate the accessibility of their contributions of Open Educational Resources to the TAACCCT repository called SkillsCommons.org . CAST (www.cast.org), a partner in the TAACCCT Learning Network and the CSU Accessible Technology Initiative (www.calstate.edu/accessibility) contributed the many references and support resources to help TAACCCT grantees learn how best to design, evaluate, and remediate their OER to maximize the accessibility of the learning resources for all.

This checkpoints are meant to guide your TAACCCT grant team in their evaluation of the accessibility of the educational materials your grant produced. The checkpoints provide "reference materials" for each criteria which should help your team members reliably learn and apply the checkpoints for your contributions to SkillsCommons.org. Most of the resources are comprehendible by faculty and instructional designers and a few resources are much more technically oriented (e.g. structural mark-up section).

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INSTRUCTIONS:

- Download the template for The Accessibility Checkpoints Form and review each of the accessibility criteria
- Complete the evaluation checkpoints for each submission (when appropriate) and post The Accessibility Checkpoints evaluation report in SkillsCommons.org within the Learning Resources collection.
- The Accessibility Checkpoints Form has many criteria and not all will apply to each material submitted. You will apply only the relevant criteria for your materials.
- Need help? Email - support@skillscommons.org

HOW TO USE THIS GUIDE:

This guide will walk you through each of the accessibility fields presented in the SkillsCommons repository in the order they appear in submission process. The name of each field and corresponding instructions are listed. A blue call out box below each accessibility feature will list resources and examples helping you learn more about each feature.

URL to Formal Accessibility Policy ☐

1. URL to Formal Accessibility Policy:
   If your organization has a formal accessibility policy, enter the URL here.

   [   ]

   Resources
   Understanding the Context: Accessibility in Higher Education
   (Prepared by Kaela Parks, Director of Disability Services at Portland Community College)

   Providing training for faculty and staff: An essential element for your campus
   (National Center on Disability and Access to Education)

   Examples of Formal Accessibility Policies
   Technology accessibility policies in higher education intended to serve as a resource for institutions which are developing or considering developing their own policies:

   Example Policies in Higher Education (Complied by University of Washington)

   California State University, Northridge, Universal Design Center

   San José State University, Center for Faculty Development): Are My Courses Accessible?

The name of accessibility feature and checkbox for you to "check off" if you have satisfied this accessibility feature.

The field and instructions as they appear in the repository submission process.

Resources and examples that will provide you with more information about the accessibility feature.

To view full URL for each text link see "References" at the end of this guide.

URL to Formal Accessibility Policy

1. URL to Formal Accessibility Policy
   If your organization has a formal accessibility policy, enter the URL here.

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> **Resources**
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> [Understanding the Context: Accessibility in Higher Education](#)
> (Prepared by Kaela Parks, Director of Disability Services at Portland Community College)
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> [Providing training for faculty and staff: An essential element for your campus](#)
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> **Examples of Formal Accessibility Policies**
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>
> [Example Policies in Higher Education](#) (Complied by University of Washington)
>
> [California State University, Northridge, Universal Design Center](#)
>
> [San Josè State University, Center for Faculty Development): Are My Courses Accessible?](#)

URL to Accessibility Statement

2. URL to Accessibility Statement

   If your organization has an accessibility statement, enter the URL here.

   [   ]

Resources

A collection of resources, with a focus on Universal Design for Learning, informing about the legal obligations of postsecondary institutions to ensure that all students are provided with equal opportunities to learn:

[Improving Institutional policies and Practices (CAST)](#)

Sample Accessibility Statements

[California State University Accessibility Statement](#)

[Disability.gov Accessibility Statement](#)

[Lane Community College Accessibility Statement](#)

[North Carolina Community College System Accessibility Statement](#)

URL to Accessibility Evaluation Report

3. URL to Accessibility Evaluation Report

   If you have an Accessibility Evaluation Report for this item, enter the URL here.

Resources & Examples

Selecting Accessible OERs (CAST): Explanations for the accessibility requirements that legally apply to OERs, and lists supports for selecting compliant OERs – such as rubrics for selecting and evaluating OERs.

Evaluating for Accessibility (Shawn Lawton Henry)

An excerpt from the publication Just Ask: Integrating Accessibility throughout Design (Shawn Lawton Henry) provides information on incorporating accessibility into user-centered design evaluation methods.

Accessibility Testing Tools

Free Online Tools (University of Wisconsin-Madison)

Accessibility Audits versus Accessibility Testing (Webcredible) note this is a commercial vendor.

Evaluation Rubrics for Web Materials and Documents

Web Evaluation Criteria by Universal Design Center, California State University, Northridge

Document Accessibility Evaluation by Universal Design Center, California State University, Northridge

Course Accessibility Checklist, Sacramento State

Text Access - Text to Speech

4. Text Access - Text to Speech

   The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality.

   ⬭ Yes ⬭ No

Resources & Examples

Selectable text is a prerequisite to enabling TTS functionality. The following resources provide guidance for specific text formats:

[Accessible text and documents through Microsoft Word](#) (Webaim)

More Advanced Level Resources

[CSU Standards and Techniques Guide for Creating Accessible Microsoft Word 2010 Documents 1.0 (PDF)](#) PDF File

[Microsoft Word 2011](#) (Mac) Cheatsheet

[Microsoft Word 2007/2010](#) Cheatsheet

[Microsoft Word 2013](#) Cheatsheet

[How to Export/Save As a Text Accessible Version of PDF](#) (California State University)

Resources explaining audio-supported reading and specific TTS tools

[Audio-Supported Reading in Action: New Tools, Increased Proficiency](#) (CAST)

[Exploring Text-to-Speech Readers for Students with Disabilities](#) (International Literacy Association)

Text Adjust – Compatible

5. Text Adjust – Compatible

   Text is compatible with assistive technology. ◯ Yes ◯ No

> **Resources & Examples**
>
> A general introduction to accessible text in digital media:
> Flexible Multimedia: Text (CAST)
>
> Tips for making sure users of your website can resize text without content becoming lost or obscured:
> Text Resizing Tips (Nomensa Blog)

Text Adjustment - Adjust Font and Colors

6. Text Adjustment - Adjust Font and Colors
   The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality). ◯ Yes ◯ No

> **Resources & Examples**
> Resources to gain background information on reading and text adjustment:
>
> Studies in Reading and Text Legibility (Lighthouse International)
>
> The Essentials of Assistive Technologies, (Cook, A. M., & Polgar, J. M.) See page 172

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Reading Layout - Reflow the Text ☐

7. Reading Layout - Reflow the Text

   Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality)

   ○ Yes ○ No

> ### Resources & Examples
>
> The resource below describes how to make fixed layout, deal with accessibility issues, synch text and audio, and more.
>
> [Field Guide to Fixed Layout for E-Books](#) (Book Industry Study Group) Reading layout information begins on page 17.
> More in-depth information provided as well.

Reading Layout - Page numbers match printed material and reflow of text ☐

8. Reading Layout - Page numbers match printed material and reflow of text

   If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.

   ○ Yes ○ No

9. Is reading layout also preserved when a reflow function is enabled? ○ Yes ○ No

> ### Resources & Examples
> Page numbers are the primary means of navigation within a book. For any book with a print equivalent, page numbers should be designated even if they are not displayed. Read more at CAST's website below.
>
> [Creating Accessible OER (CAST)](#)

Reading Order - Digital resource layout

10. Reading Order - Digital resource layout

    The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology.

    ◯ Yes ◯ No

    ### Resources & Examples

    To be accessible to non-visual readers, content must be marked up such that a logical path that excludes secondary material (e.g., endnotes, sidebars, charts, etc.) and orders the primary content can be followed by assistive technology.

    "Best Practices in Organizing OER Content"
    BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

    The resource below contains technical references with generic explanation of reading order and examples depending on the OER file type.

    EPUB3 Accessibility Guidelines (International Digital Publishing Forum)

    Checking Logical Reading Order with CommonLook PDF (NetCentric Technologies) Note this is from a commercial vendor

Structural Markup - Navigation Text

11. Structural Markup - Navigation Text

    The text of the digital resource includes markup (e.g. tags or styles) that allows for navigation by key structural elements (chapters, headings, pages) using assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).

    ⚪ Yes ⚪ No

    ## Resources & Examples

    Markup comprises a set of symbols, or a language, that can be used to provide instructions; the markup provides instructions to the software used for viewing a webpage or document (web browsers or assistive technologies) on how the page should look and work. Evaluating and implementing structural mark-up can require more technical expertise.

    HTML Structural Elements (W3C.org)

    WebAIM MS Word accessibility guide with examples

    Structured PDFs from MS Office documents

Structural Markup – Lists

12. Structural Markup – Lists

    The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality). ○ Yes ○ No

    ### Resources & Examples

    Lists also convey a hierarchical content structure. Check out the resources below to get guidance on accessible lists in HTML, PDFs, and Word documents.

    Semantic Structure: Using Lists Correctly (HTML) (WebAIM)

    Using list Tags for Lists in PDF Documents (W3C)

Structural Markup - eReader application

13. Structural Markup - eReader application

    If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology. ○ Yes ○ No

    ### Resources & Examples

    A free conversion tool to turn source documents into ebooks, Calibre supports over a dozen input formats and can produce just as many output formats.

    Calibre eBook Conversion (Kovid Goyal)

Table Markup ☐

14. Table Markup

    Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality). ◯ Yes ◯ No

    ## Resources & Examples

    Check out the guides below to ensure that any tables are accessible.

    [Creating Accessible tables](#) (WebAIM)

    [Table Concepts and Examples](#) (W3C)

Hyperlinks ☐

15. Hyperlinks

    URLs (e.g. website or email addresses) within the text of the digital resource are rendered as active hyperlinks in a manner that allows them to be detected and activated with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality). ◯ Yes ◯ No

    ## Resources & Examples

    In web design, a lot of thought goes into how hyperlinks look; just as much thought needs to go into how they function in terms of accessibility.

    [Design & UX – Accessibility—Making Accessible Links: 15 Golden Rules for Developer](#)s (Sitepoint)

    [Web Accessibility Criteria - Comprehensive Link Text](#)

Color

16. Color

All information within the digital resource that is conveyed using color is also available in a manner that is compatible with assistive technology and those that do not perceive color. ◯ Yes ◯ No

Resources & Examples

Though using color to convey meaning can be a common design choice, careful consideration is required to ensure that all information is accessible to all users.

Ten Tips for Accessible Documents (Microsoft)

"Best Practices in Images: Using Colour" BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

Color Contrast and the use of Color to Convey Information

Contrast

17. Contrast

The visual presentation of text and images of text in the digital resource has a contrast ratio of at least 4.5:1. ◯ Yes ◯ No

Resources & Examples

Contrast refers to the difference between colors (luminance, brightness) that makes an object distinguishable -- especially for people with low vision.

Accessible Images (WebAIM)
Contrast (Minimum) (W3C)
Color Contrast and the use of Color to Convey Information

Language – Markup

18. Language – Markup

    The text of the digital resource includes markup that declares the language of the content in a manner that is compatible with assistive technology.

    ◯ Yes ◯ No

> **Resources & Examples**
>
> Identifying the language(s) of the content is important because it allows assistive software to adapt to symbols, syntax, and pronunciation accordingly. The resource below provides HTML examples.
>
> Language Declaration (St. Edwards University)

Language - Passage markup

19. Language - Passage markup

    If the digital resource includes passages in a foreign language, these passages include markup that declares the language in a manner that is compatible with assistive technology. ◯ Yes ◯ No

> **Resources & Examples**
>
> Identifying the language(s) of the content is important because it allows assistive software to adapt to symbols, syntax, and pronunciation accordingly. The resource below provides HTML examples.
>
> Language Declaration (St. Edwards University)

Images - Non-Decorative ☐

20. Images - Non-Decorative

Non-decorative images have alternative text that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality). ◯ Yes ◯ No

Resources & Examples

Get a good introduction to working with images, from a universal design perspective, from these overview resources below.

"Best Practices in Images: Before You Begin" - BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

Webaim - Alternative Text

Flexible Multimedia – Images (UDL OnCampus)

Non-decorative images need to be associated with descriptive text (alternative text, or long description) that provides another means of accessing the visual information. This benefits users of assistive technology – or anyone who might prefer an additional way of understanding the significance of an image. Review the resources below to get guidance on how to write good descriptions.

Criteria for Images

Image Description Resources (National Center for Accessible Media)

Guidelines for Describing STEM Images (National Center for Accessible Media)

Effective Practices for Description of Science Content within Digital Talking Books (National Center for Accessible Media)

Making it easier, cheaper, and faster to create and use accessible digital images (DIAGRAM Center)

Images – Decorative

21. Images – Decorative

    Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology.

    ◯ Yes ◯ No

> ## Resources & Examples
>
> Images that are not intended to convey meaning need to be considered for how they interact with assistive technology.
>
> Image Guidelines for EPUB3 (DIAGRAM Center)
>
> "Best Practices in Images: Decorative Images" - BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

Images – Complex

22. Images – Complex

    Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application

    such as a browser, media player, or reader) that offers this functionality). ◯ Yes ◯ No

> ## Resources & Examples
>
> For more complex cases, refer to some of the examples and guidelines below.
>
> Complex Images (Penn State)
>
> Web Accessibility Criteria for Images
>
> Web Accessibility Tutorials: Complex Images (W3C)
>
> "Best Practices in Images: What Do You Need to Do?" - BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

Multimedia - Text track

23. Multimedia - Text track

    A synchronized text track (e.g. open or closed captions) is provided with all video content. ◯ Yes ◯ No

> **Resources & Examples**
>
> Captions help viewers process visual media by representing the spoken language in video as text. They are essential to some, but beneficial to many, including new and struggling readers, learners of a new language, and people with hearing loss and speech processing difficulties. Captioning your videos provides the added benefit of increasing search engine optimization.
>
> CSU Captioning Guidelines and Resources
>
> Flexible Multimedia: Captions (CAST)
>
> Suggested Styles and Conventions for Closed Captioning (National Center for Accessible Media)
>
> Captioning Resources (Minnesota Commission)

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Multimedia – Transcript ☐

24. Multimedia – Transcript

A transcript is provided with all audio content. ⚪ Yes ⚪ No

Resources & Examples

Transcripts can range from basic – a straightforward conversion of audio to text – to dynamic and interactive – with clickable, time-based text and audio description.

Flexible Multimedia – Transcripts (Minnesota Commission)
Video Captions and Audio Transcripts (AccessAbility)
Transcribe Web App for Chrome (The Next Web)

Multimedia - Assistive player ☐

25. Multimedia - Assistive player

Audio/video content is delivered via a media player that is compatible with assistive technology. ⚪ Yes ⚪ No

Resources & Examples

Most – but not all! – major media players support the display of captions, which benefit a wide range of video audiences. However, many players are not fully accessible

How do I turn on captions or descriptive Audio in My Media Player? (AccessibleTech.org)

Accessible Media Player Resources and Demos (IHENI)

Non flickering content

26. Non flickering content

The digital resource content does not contain anything that flashes more than three times in any one-second period. ◯ Yes ◯ No

> ### Resources & Examples
> For more information about photoepileptic seizures and visual design of online experiences, check out this resource.
>
> Seizure Disorders (WebAIM)

STEM – Markup

27. STEM – Markup

STEM content (e.g. Mathematics, Chemistry) is marked up in a manner that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality). ◯ Yes ◯ No

> ### Resources & Examples
> For complex content (e.g., Science, Technology, Engineering, Math) that may contain specialized symbols, meanings, or diagrams, the following resources are useful guides.
>
> Guidelines for Describing STEM Images (National Center for Accessible Media (NCAM))
> Description of Scientific Content (NCAM)
> Guideline G: Math (NCAM)
> Mathematics: MathML (DAISY Structure Guidelines)
> MathHear for Windows (gh, LLC)

STEM - Notation markup

28. STEM - Notation markup

The resource conveys both the notation (presentation) and meaning (semantics) of the STEM content. ◯ Yes ◯ No

Resources & Examples

For complex content (e.g., Science, Technology, Engineering, Math) that may contain specialized symbols, meanings, or diagrams, the following resources are useful guides.

Guidelines for Describing STEM Images (National Center for Accessible Media (NCAM))

Description of Scientific Content (NCAM)

Guideline G: Math (NCAM)

Mathematics: MathML (DAISY Structure Guidelines)

MathHear for Windows (gh, LLC)

Interactive – Keyboard ☐

29. Interactive – Keyboard

Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology. ◯ Yes ◯ No

Resources & Examples

Being able to access all functionality of a mouse by using a keyboard with digital resources is a way of providing multiple means of action and access to users.

[Keyboard Accessibility](#) (WebAIM)

[Keyboard Accessibility](#)

Interactive – Markup ☐

30. Interactive – Markup

Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected").
◯ Yes ◯ N

Resources & Examples

Users must be able to perceive interactive aspects of digital media for them to be accessible.

[Designing for Easy Interaction](#) (AListApart)

[Make interactive elements that require accuracy…stationary](#) (Game Accessibility Guidelines)

Interactive - Text prompts

31. Interactive - Text prompts

    All instructions, prompts, and error messages necessary to complete forms are conveyed as text to assistive technology (or are rendered by an

    application such as a browser, media player, or reader that offers this functionality). ◯ Yes ◯ No

    ## Resources & Examples

    Don't forget about the content that supports users interactions: instructions, pop-ups, error messages, etc.

    Web Criteria - Forms

    Making Accessible Forms (Webcredible)

    Accessible forms – Should every Input have a label? (Coofields Consulting)

References

1. URL to Formal Accessibility Policy

   Understanding the Context: Accessibility in Higher Education

   (Prepared by Kaela Parks, Director of Disability Services at Portland Community College)

   https://www.pcc.edu/resources/disability/documents/Context_Accessibility_HigherEd.pdf)

   Providing training for faculty and staff: An essential element for your campus (National Center on Disability and Access to Education) http://ncdae.org/resources/tips/training.php

   Technology accessibility policies in higher education intended to serve as a resource for institutions which are developing or considering developing their own policies:

   Example Policies in Higher Education (Complied by University of Washington) http://www.washington.edu/accessibility/requirements/example-policies/California State University, Northridge, Universal Design Center http://www.csun.edu/universaldesigncenter/AccessibilityandUsabilityRecommendationsforOnlineCourseMaterialsSan Josè State University, Center for Faculty Development): Are My Courses Accessible?http://www.sjsu.edu/cfd/docs/Are_My_Course_Materials_Accessible.pdf

2. URL to Accessibility Statement

   A collection of resources, with a focus on Universal Design for Learning, informing about the legal obligations of postsecondary institutions to ensure that all students are provided with equal opportunities to learn:

   Improving Institutional policies and Practices (CAST)

   http://udloncampus.cast.org/page/policy_landing#.VNonty7rta8

Sample Accessibility Statements:

California State University Accessibility Statement

http://teachingcommons.cdl.edu/access/procurement_process/resources.shtml

From Disability.gov

https://www.disability.gov/accessibility-statement/

From Lane Community College

http://www.lanecc.edu/copps/documents/disabilities-accessibility-statements-students-and-community

From the North Carolina Community College System

http://vlc.nccommunitycolleges.edu/accessibility.html

3. URL to Accessibility Evaluation Report

Selecting Accessible OERs (CAST): Explainations for the accessibility requirements that legally apply to OERs, and lists supports for selecting compliant OERs – such as rubrics for selecting and evaluating OERs:

http://udloncampus.cast.org/page/media_oer_selecting#.VOYYTFPF87M

An excerpt from the publication Just Ask: Integrating Accessibility throughout Design (Shawn Lawton Henry) provides information on incorporating accessibility into user-centered design evaluation methods:

Evaluating for Accessibility (Shawn Lawton Henry)

http://uiaccess.com/accessucd/evaluate.html

Accessibility testing tools:

Free Online Tools (University of Wisconsin-Madison)

https://www.doit.wisc.edu/accessibility/accessibility-testing/

Accessibility Audits versus Accessibility Testing (Webcredible) note this is a commercial vendor

http://www.webcredible.com/blog-reports/web-accessibility/audit-testing.shtml

Evaluation Rubrics for Web Materials and Documents

Web Evaluation Criteria by Universal Design Center, California State University, Northridge

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria

Document Accessibiilty Evaluation by Universal Design Center, California State University, Northridge

http://www.csun.edu/universaldesigncenter/document-accessibility

Course Accessibility Checklist, Sacramento State

http://www.csus.edu/accessibility/checklist.html

4. Text Access - Text to Speech

Selectable text is a prerequisite to enabling TTS functionality. The following resources provide guidance for specific text formats:

Accessible text and documents through Microsoft Word (Webaim)

http://webaim.org/techniques/word/

More Advanced Level Resources

CSU Standards and Techniques Guide for Creating Accessible Microsoft Word 2010 Documents 1.0 (PDF) PDF File

http://teachingcommons.cdl.edu/access/docs_multi/documents/StandardsandTechniquesGuideforCreatingAccessibleMSWord2010Docsv1.0.pdf

Microsoft Word 2011 (Mac) Cheatsheet

http://www.ncdae.org/resources/cheatsheets/word-mac.php

Microsoft Word 2007/2010 Cheatsheet

http://www.ncdae.org/resources/cheatsheets/word.php

Microsoft Word 2013 Cheatsheet

http://www.ncdae.org/resources/cheatsheets/word2013.php

How to Export/Save As a Text Accessible Version of PDF (California State University)

http://teachingcommons.cdl.edu/access/docs_multi/pdf_vid_tut/review_docs/read_order/export/export_pdf.shtml

Resources explaining audio-supported reading and specific TTS tools:

Audio-Supported Reading in Action: New Tools, Increased Proficiency (CAST)

http://aem.cast.org/supporting/audio-supported-reading.html - .VOYaAFPF87O

Exploring Text-to-Speech Readers for Students with Disabilities (International Literacy Association)

http://www.reading.org/literacy-daily/digital/post/engage/2014/03/07/exploring-text-to-speech-readers-for-students-with-disabilities

5. Text Adjust – Compatible

A general introduction to accessible text in digital media:

Flexible Multimedia: Text (CAST)

http://udloncampus.cast.org/page/media_text#.VNo0FS7rta8

Tips for making sure users of your website can resize text without content becoming lost or obscured:

Text Resizing Tips (Nomensa Blog)

http://www.nomensa.com/blog/2013/text-resizing-tips

6. Text Adjustment - Adjust Font and Colors

Resources to gain background information on reading and text adjustment:

Studies in Reading and Text Legibility (Lighthouse International)

htp://www.lighthouse.org/research/archived-studies/studies-reading/

The Essentials of Assistive Technologies, (Cook, A. M., & Polgar, J. M.) See page 172

https://books.google.com/books?id=dsrsAwAAQBAJ&pg=PA172&lpg=PA172&dq=The+importance+of+Adjustable+font+and+text+color&source=bl&ots=sp-pZ_GWfr&sig=HO5yUg22Uvw7vinHjCl8IoCOugI&hl=en&sa=X&ei=RzbaVMvHEMulgwSXg4LgAw&ved=0CEUQ6AEwBjgo#v=onepage&q=The%20importance%20of%20Adjustable%20font%20and%20text%20color&f=false

7. Reading Layout - Reflow the Text

The resource below describes how to make fixed layout, deal with accessibility issues, synch text and audio, and more.

Field Guide to Fixed Layout for E-Books (Book Industry Study Group) Reading layout information begins on page 17.   More in-depth information provided as well.

https://www.bisg.org/docs/FieldGuidetoFXL_v1.1_Final%20for%20Publication.pdf

8. Reading Layout - Page numbers match printed material and reflow of text

Page numbers are the primary means of navigation within a book. For any book with a print equivalent, page numbers should be designated even if they are not displayed. Read more at CAST's website below.

Creating Accessible OER (CAST)

http://udloncampus.cast.org/page/media_oer_selecting#.VR1B35PF87M

9. Is reading layout also preserved when a reflow function is enabled?

Page numbers are the primary means of navigation within a book. For any book with a print equivalent, page numbers should be designated even if they are not displayed. Read more at CAST's website below.

Creating Accessible OER (CAST)

http://udloncampus.cast.org/page/media_oer_selecting#.VR1B35PF87M

10. Reading Order - Digital resource layout

To be accessible to non-visual readers, content must be marked up such that a logical path that excludes secondary material (e.g., endnotes, sidebars, charts, etc.) and orders the primary content can be followed by assistive technology.

"Best Practices in Organizing OER Content"

BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

http://opentextbc.ca/accessibilitytoolkit/chapter/organizing-content/

The resource below contains technical references with generic explanation of reading order and examples depending on the OER file type.

EPUB3 Accessibility Guidelines (International Digital Publishing Forum)

http://www.idpf.org/accessibility/guidelines/content/semantics/order.php

Checking Logical Reading Order with CommonLook PDF (NetCentric Technologies) Note this is from a commercial vendor

http://www.commonlook.com/checking-logical-reading-order

11. Structural Markup - Navigation Text

Markup comprises a set of symbols, or a language, that can be used to provide instructions; the markup provides instructions to the software used for viewing a webpage or document (web browsers or assistive technologies) on how the page should look and work. Evaluating and implementing structural mark-up can require more technical expertise.

HTML Structural Elements (W3C.org)

http://www.w3.org/wiki/HTML_structural_elements

WebAIM MS Word accessibility guide with examples

http://webaim.org/techniques/word/

Structured PDFs from MS Office documents

https://support.office.com/en-ca/article/Create-accessible-PDFs-064625e0-56ea-4e16-ad71-3aa33bb4b7ed

12. Structural Markup – Lists

Lists also convey a hierarchical content structure. Check out the resources below to get guidance on accessible lists in HTML, PDFs, and Word documents.

Semantic Structure: Using Lists Correctly (HTML) (WebAIM)

http://webaim.org/techniques/semanticstructure/#lists

Using list Tags for Lists in PDF Documents (W3C)

http://www.w3.org/TR/WCAG20-TECHS/PDF21.html

13. Structural Markup - eReader application

A free conversion tool to turn source documents into ebooks, Calibre supports over a dozen input formats and can produce just as many output formats.

Calibre eBook Conversion (Kovid Goyal)

http://manual.calibre-ebook.com/conversion.html

14. Table Markup

Check out the guides below to ensure that any tables are accessible.

Creating Accessible tables (WebAIM)

http://webaim.org/techniques/tables/data

Table Concepts and Examples (W3C)

http://www.w3.org/WAI/tutorials/tables/

15. Hyperlinks

In web design, a lot of thought goes into how hyperlinks look; just as much thought needs to go into how they function in terms of accessibility.

Design & UX – Accessibility—Making Accessible Links: 15 Golden Rules for Developers (Sitepoint)

http://www.sitepoint.com/15-rules-making-accessible-links/

Web Accessibility Criteria - Comprehensive Link Text

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-comprehensive-link-text

16. Color

    Though using color to convey meaning can be a common design choice, careful consideration is required to ensure that all information is accessible to all users.

    Ten Tips for Accessible Documents (Microsoft)

    https://support.office.com/en-nz/article/Ten-tips-for-accessible-documents-49b2ccea-5a8b-458a-988e-c273c50f225c

    "Best Practices in Images: Using Colour"

    BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

    http://opentextbc.ca/accessibilitytoolkit/chapter/imageschartsgraphsmaps/

    Color Contrast and the use of Color to Convey Information

    http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-color

17. Contrast

    Contrast refers to the difference between colors (luminance, brightness) that makes an object distinguishable -- especially for people with low vision.

    Accessible Images (WebAIM)

    http://webaim.org/techniques/images/

Contrast (Minimum) (W3C)

http://www.w3.org/TR/UNDERSTANDING-WCAG20/visual-audio-contrast-contrast.html

Color Contrast and the use of Color to Convey Information

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-color

18. Language – Markup

Identifying the language(s) of the content is important because it allows assistive software to adapt to symbols, syntax, and pronunciation accordingly. The resource below provides HTML examples.

Language Declaration (St. Edwards University)

https://sites.stedwards.edu/accessibility/language-declaration/

19. Language - Passage markup

Identifying the language(s) of the content is important because it allows assistive software to adapt to symbols, syntax, and pronunciation accordingly. The resource below provides HTML examples.

Language Declaration (St. Edwards University)

https://sites.stedwards.edu/accessibility/language-declaration/

20. Images - Non-Decorative

Get a good introduction to working with images, from a universal design perspective, from these overview resources below.

"Best Practices in Images: Before You Begin"

BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

http://opentextbc.ca/accessibilitytoolkit/chapter/imageschartsgraphsmaps/

Webaim

Alternative Text

http://webaim.org/techniques/alttext/

Flexible Multimedia – Images (UDL OnCampus)

http://udloncampus.cast.org/page/media_image#.VNpPhi7rta8

Non-decorative images need to be associated with descriptive text (alternative text, or long description) that provides another means of accessing the visual information. This benefits users of assistive technology – or anyone who might prefer an additional way of understanding the significance of an image. Review the resources below to get guidance on how to write good descriptions.

Criteria for Images

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-images

Image Description Resources (National Center for Accessible Media)

http://ncam.wgbh.org/experience_learn/educational_media/accessible-assessments/image-description-resources

Guidelines for Describing STEM Images (National Center for Accessible Media)

http://ncam.wgbh.org/experience_learn/educational_media/stemdx/guidelines

Effective Practices for Description of Science Content within Digital Talking Books (National Center for Accessible Media)

http://ncam.wgbh.org/experience_learn/educational_media/stemdx

Making it easier, cheaper, and faster to create and use accessible digital images (DIAGRAM Center)

http://diagramcenter.org/

21. Images – Decorative

Images that are not intended to convey meaning need to be considered for how they interact with assistive technology.

Image Guidelines for EPUB3 (DIAGRAM Center)

http://diagramcenter.org/59-image-guidelines-for-epub-3.html

"Best Practices in Images: Decorative Images"

BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

http://opentextbc.ca/accessibilitytoolkit/chapter/imageschartsgraphsmaps/

22. Images – Complex

For more complex cases, refer to some of the examples and guidelines below.

Complex Images (Penn State)

http://accessibility.psu.edu/images/

Web Accessibility Criteria for Images

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-images

Web Accessibility Tutorials: Complex Images (W3C)

http://www.w3.org/WAI/tutorials/images/complex/

"Best Practices in Images: What Do You Need to Do?"

BC Open Textbook Accessibility Toolkit (BCcampus and CAPER-BC)

http://opentextbc.ca/accessibilitytoolkit/chapter/imageschartsgraphsmaps/

23. Multimedia - Text track

Captions help viewers process visual media by representing the spoken language in video as text. They are essential to some, but beneficial to many, including new and struggling readers, learners of a new language, and people with hearing loss and speech processing difficulties. Captioning your videos provides the added benefit of increasing search engine optimization.

CSU Captioning Guidelines and Resources

http://teachingcommons.cdl.edu/access/docs_multi/docs_mm_caption_introduction.shtml

Flexible Multimedia: Captions (CAST)

http://udloncampus.cast.org/page/media_caption#.VNp4bS7rta8

Suggested Styles and Conventions for Closed Captioning (National Center for Accessible Media)

http://main.wgbh.org/wgbh/pages/mag/services/captioning/faq/sugg-styles-conv-faq.html

Captioning Resources (Minnesota Commission)

http://www.mncdhh.org/captioningessentials/resources.html

24. Multimedia – Transcript

Transcripts can range from basic – a straightforward conversion of audio to text – to dynamic and interactive – with clickable, time-based text and audio description.

Flexible Multimedia – Transcripts (Minnesota Commission)

http://udloncampus.cast.org/page/media_transcript#.VNp4wS7rta8

Video Captions and Audio Transcripts (AccessAbility)

http://accessibility.psu.edu/video

Transcribe Web App for Chrome (The Next Web)

http://thenextweb.com/apps/2012/08/04/transcribe-an-awesome-audio-transcription-web-app-for-chrome/

25. Multimedia - Assistive player

Most – but not all! – major media players support the display of captions, which benefit a wide range of video audiences. However, many players are not fully accessible

How do I turn on captions or descriptive Audio in My Media Player? (AccessibleTech.org)

http://www.accessibletech.org/access_articles/multimedia/captionsTurnOn.php

Accessible Media Player Resources and Demos (IHENI)

http://www.iheni.com/accessible-media-player-resources/

26. Non flickering content

For more information about photoepileptic seizures and visual design of online experiences, check out this resource.

Seizure Disorders (WebAIM)

http://webaim.org/articles/seizure/

27. STEM – Markup

For complex content (e.g., Science, Technology, Engineering, Math) that may contain specialized symbols, meanings, or diagrams, the following resources are useful guides.

Guidelines for Describing STEM Images (National Center for Accessible Media (NCAM))

http://ncam.wgbh.org/experience_learn/educational_media/stemdx/guidelines

Description of Scientific Content (NCAM)

http://ncam.wgbh.org/experience_learn/educational_media/stemdx

Guideline G: Math (NCAM)

http://ncam.wgbh.org/invent_build/web_multimedia/accessible-digital-media-guide/guideline-g-math

Mathematics: MathML (DAISY Structure Guidelines)

http://www.daisy.org/z3986/structure/SG-DAISY3/part2-math.html

MathHear for Windows (gh, LLC)

https://www.gh-accessibility.com/software/mathhear

28. STEM - Notation markup

For complex content (e.g., Science, Technology, Engineering, Math) that may contain specialized symbols, meanings, or diagrams, the following resources are useful guides.

Guidelines for Describing STEM Images (National Center for Accessible Media (NCAM))

http://ncam.wgbh.org/experience_learn/educational_media/stemdx/guidelines

Description of Scientific Content (NCAM)

http://ncam.wgbh.org/experience_learn/educational_media/stemdx

Guideline G: Math (NCAM)

http://ncam.wgbh.org/invent_build/web_multimedia/accessible-digital-media-guide/guideline-g-math

Mathematics: MathML (DAISY Structure Guidelines)

http://www.daisy.org/z3986/structure/SG-DAISY3/part2-math.html

MathHear for Windows (gh, LLC)

https://www.gh-accessibility.com/software/mathhear

29. Interactive – Keyboard

Being able to access all functionality of a mouse by using a keyboard with digital resources is a way of providing multiple means of action and access to users.

Keyboard Accessibility (WebAIM)

http://webaim.org/techniques/keyboard/

Keyboard Accessibility

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-keyboard-accessibility

30. Interactive – Markup

Users must be able to perceive interactive aspects of digital media for them to be accessible.

Designing for Easy Interaction (AListApart)

http://alistapart.com/article/designing-for-easy-interaction

Make interactive elements that require accuracy…stationary (Game Accessibility Guidelines)

http://gameaccessibilityguidelines.com/make-interactive-elements-that-require-accuracy-eg-cursortouch-controlled-menu-options-stationary

31. Interactive - Text prompts

Don't forget about the content that supports users interactions: instructions, pop-ups, error messages, etc.

Web Criteria - Forms

http://www.csun.edu/universaldesigncenter/web-accessibility-criteria-forms

Making Accessible Forms (Webcredible)

http://www.webcredible.com/blog-reports/web-accessibility/accessible-forms-1.shtml

Accessible forms – Should every Input have a label? (Coofields Consulting)

http://www.coolfields.co.uk/2011/04/accessible-forms-should-every-input-have-a-label/

Thank You to CAST (www.cast.org) for their support to enrich this accessibility checklist with references.