Accessible Content Core Skills

What is Accessible Content?

When content and information is more accessible, everyone benefits. Accessible content is information that can be read, scanned and/or listened to by people with disabilities. Visual and non-visual users (such as people who use screen reader software) must be able to access content in a meaningful way. This requires an attitudinal shift since we are used to creating content with only visual users in mind.

More Accessible (not Fully Accessible)

It can be very hard to make content fully accessible because we have such diverse needs. But there are skills and strategies for creating content that is more accessible to people with and without disabilities. Content that is more accessible will also be more clear and concise for all students, staff and the wider community of York Region District School Board (YRDSB or the Board).

Core Skills for Creating Accessible Content

There are seven core skills to creating accessible content, as adapted from the [University of Minnesota's Accessible U](#). These core skills focus on digital accessibility because we all use digital technology (such as computers, laptops, tablets and smart phones) to work and learn. This resources will offer accessibility best practices and guidelines as well as practices to avoid for each accessible content core skill:

1. [Layout](#)
2. [Headings](#)
3. [Colour Contrast](#)
4. [Links](#)
5. [Alternative Text](#)
6. [Tables](#)
7. [Audio and Video](#)

Accessible Content Core Skill 1: Layout

The way we choose to present or lay out information is key to creating accessible content. We have to be intentional when choosing layout elements such as font, alignment, spacing and lists.

Some layout and formatting choices still used today are based on old habits and practices that are not accessible. We need to move past these dated practices that continue to be systemic barriers to accessibility.

Font Type and Size

Font type: Certain types of fonts are easier to read for most people. These are called **sans-serif fonts**, which have even letter thickness and do not have decorative endings (known as serifs) on each letter.
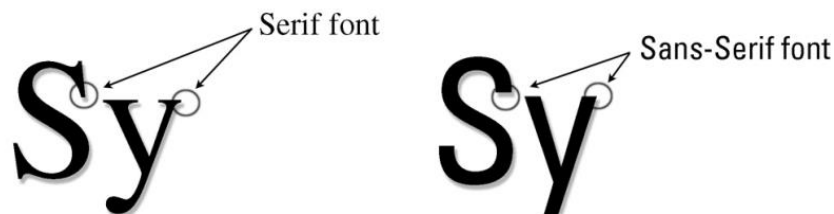
Font size: When it comes to font size, bigger is always better. Larger fonts have higher resolution, reduce the need for users to zoom in or enlarge text, and are generally easier to read.

Did you know? Text larger than size 18 (or size 14 with bold) can meet accessibility requirements with lower contrast ratios.

Alignment and Spacing

Alignment: Text should always be aligned to the left margin to keep even spacing between words. "Justify" aligns text to both the left and right margins and creates uneven spacing between words. The extra space between words

is much harder for some people to read because it can create "rivers of white" that flow down a page and distract from the actual text (example below).

Justify aligns text to both the left and right margins and creates uneven spacing between words. The extra space between words is much harder for some people to read because it can create "rivers of white" that flow down a page and distract from the actual text.

Spacing: The spacing between lines of text is just as important as the alignment and spacing between words. Some people have trouble tracking lines of text if they are too close together (example below).

Single spacing ⟶
1.25 line spacing ⟶
1.25 line spacing ⟶

Some people have trouble tracking lines of text if they are too close together. Line spacing set at 1.25 size allows users to move down or track to the next line of text more easily.

Line spacing set between 1.20 to 1.30 allows users to move down or track to the next line of text more easily. However, "single spacing" is the default line spacing in word processor software like Microsoft Word and Google Docs.

Line spacing between paragraphs should be formatted using the built-in paragraph or line spacing tools. Using the space bar, 'Tab' or 'Enter' key repeatedly creates visual space only, which is not accessible to people who use screen readers. Every extra line or 'enter' will be read as the word "blank" with most screen reader software.

Did you know? You only need one space after a period, question mark or exclamation point. The use of two spaces to begin a new sentence is a dated practice that adds unnecessary spacing to a document.

Lists

Using nugget or number lists are an effective way of presenting information so it is easier to process and understand. We are more likely to read content presented in lists than in long paragraphs that we see as "walls of text".

Including long paragraphs is not recommended for accessible web content. Instead, use short paragraphs or lists to present key concepts, ideas, steps or procedures. Lists help to break up text into smaller chunks of information.

Chunking is the preferred way of reading and scanning information, especially for reading online.

To create accessible lists:

- Use the built-in nugget or number lists available in different programs or website builders;

- Use the standard nuggets that come up automatically (custom nuggets may not be accessible to screen reader software);

- Add appropriate spacing between list items (just like between lines of text); and

- Try to split longer lists into separate smaller lists with headings if possible (a long list that takes up a whole page may still look like a "wall of text").

Do (Best Practices)…

- Use a consistent sans-serif font with clear upper and lower case letters (e.g. Arial, Poppins, Verdana).

- Keep text above a 12-point font size and use larger font sizes for headings.

- Use **bold** to emphasize text.

- Align text to the left margin to keep even spacing between words.

- Ensure at least 1.20 spacing between lines of text.

- Use built-in paragraph or line spacing tools to create both visual and non-visual space.

- Start a new sentence with only one space.

- Use nugget or number lists (and/or short paragraphs) to chunk information.

Do Not (Dated Practices)…

- **Don't** use serif fonts like Times New Roman or different fonts throughout a document or web page.

- **Don't** use font sizes below 11.

- **Don't** use all capital letters, italics or underline (hyperlinks excluded) for emphasis.

- **Don't** justify text alignment as it creates uneven spacing between words.

- **Don't** use single spacing between lines of text.

- **Don't** use the 'space' bar or 'enter' key repeatedly to create white space.

- **Don't** use two spaces to begin a new sentence.

- **Don't** have long paragraphs or "walls of text" in a document or web page.

Accessible Content Core Skill 2: Headings

Headings are the most effective way to create structure and order to web content, including documents, web pages and even emails. Accessible headings allow visual and non-visual users (such as people who use screen reader software) to scan and navigate content much more easily.

Learn to use Styles

Headings should always be formatted using the **Styles** tool (pictured below). These are known as accessible headings because they can be read by screen reader software.
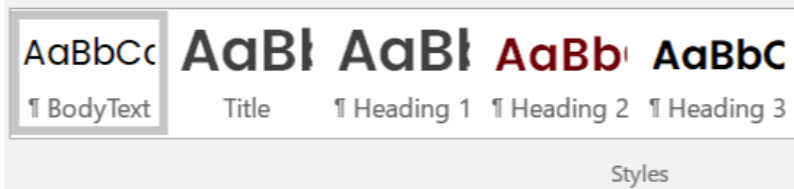
Styles also allow you to format and change the font size, colour and spacing of your headings and body text all at once. Headings created manually and without using the Styles tool are not accessible to people who use screen readers. It also takes more time and effort to format each heading manually.

In Microsoft Word, the Styles tool is located under the "Home" tab. In Google Docs, the Styles tool can be found beside the font option.
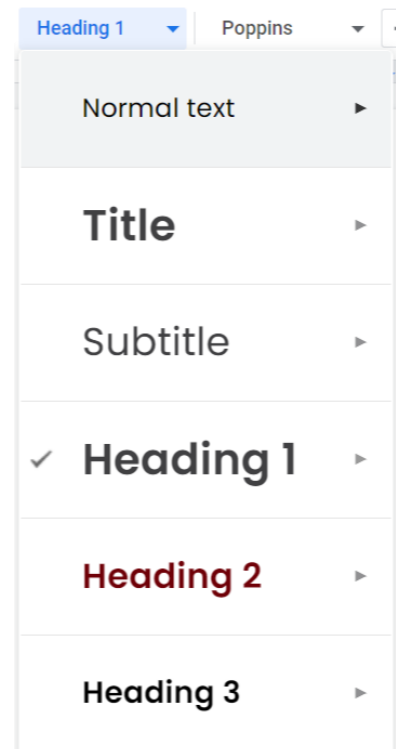
Did you know? Formatting headings using the Styles tool also allows you to create a full tables of content, hyperlinks and navigations automatically. Refer to the Accessible Word Styles Guide to learn more about these features.

Do…

- Take the time to learn how to use the Styles tool
- Use the Styles tool to add headings and format your content for accessibility.
- Keep heading levels in order (e.g., Heading 1, Heading 2, Heading 3, etc.).
- Use Styles to create a hyperlinked table of contents automatically.
- Use Styles to navigate and reorganize sections of your document with ease.

Do Not…

- **Don't** create headings manually by individually reformatting the font size and style of text – these will not read as headings to screen reader software.

Accessible Content Core Skill 3: Colour Contrast

Strong contrast ratios between the colour of your text and background are very important for accessibility. Black and white give us the best possible contrast ratio of brightness to darkness (21:1). The Board's All Access Washroom signs are an example of high contrast (with Braille) as a best practice.

Braille translation: Barrier Free All Access Washroom

Colour can still be an effective way to show visual information, but it should be used in moderation. Consider the following tips when using colour to show, emphasize or differentiate information.

Do…

- Use high contrast colours
- Use an online contrast checker to test the contrast ratios between colours.
- Make sure to use a second visual cue when using colour to show information. For example: **complete**, **in progress**, **incomplete**.

Do Not…

- **Don't** use too much colour or low contrast colours.
- **Don't** use colour as the only way to show information.

Accessible Content Core Skill 4: Links

The proper use of links and hyperlinks can make it easier for people to access content. Links are important for web accessibility because they are how people navigate through content. Links should be brief, clear and make sense on their own.

Brief and clear link text

Link text, also known as anchor text, should be a word or short phrase that describes where the hyperlinks leads. There is no rule for the length of link text, but hyperlinking full sentences or multiple lines of text is often distracting. The best practice is to keep link text as short as possible without losing meaning.

Best practice example of brief and clear link text:

"The [Accessibility Resource Hub](#) is a centralized web space on the YRDSB website for all things accessibility."

Bad practice examples of brief but unclear link text:

"The [Accessibility](#) Resource Hub is a centralized web space on the YRDSB website for all things accessibility."

"The Accessibility Resource Hub ([click here](#)) is a centralized web space on the YRDSB website for all things accessibility.

People using screen readers can scan from link to link, skipping the text in between. This is why nondescript phrases such as "click here" or "learn more" should be avoided as link text. Remember that accessible link text needs to be clear, meaningful and make sense on its own.

Avoid full web addresses

Including full web addresses or URLs in web content are known as "naked links", and should also be avoided. URLs can be lengthy and may include a mix of letters, numbers and other characters.

Bad practice example of including a full web address as a hyperlink:

"Access the Accessibility Resource Hub at YRDSB here: https://www2.yrdsb.ca/about-us/human-rights-commissioners-office/accessibility/accessibility-resource-hub-0"

The entire URL will be read out by a some screen reader, for example:

"h-t-t-p-s-colon-forward slash-forward slash-w-w-w-two-dot-y-r-d-s-b-dot-c-a-forward slash-about-forward slash-human-dash-rights-dash-commissioners-dash-office-dash-accessibility-forward slash-accessibility-dash-resource-dash-hub-dash-zero"

Take a moment to reflect on this... If you are accessing a web page or document visually and see a URL on the page, do you read out the full URL in your mind? Or do you click/tap the URL only if it leads to information you want to access?

People accessing a web page using a screen reader should also be able to access hyperlinks in a convenient way, and without having to hear the full URL. (Also, full URLs on page just look messy!)

Avoid URL shorteners

URL shorteners (such as bit.ly links) are also not considered accessible. A URL shortener or full web address should only be used in printed content or social media posts. It should be noted that social media apps and websites are not fully accessible at this time.

Do…

- Use brief and clear words or short phrases as link text.
- Include meaningful link text that makes sense on its own.
- Ensure hyperlink colour and underline has strong contrast (e.g., default blue hyperlinks)
- Check regularly to ensure there are no broken links and that all hyperlinks lead to the intended location.

Do Not…

- **Don't** hyperlink full sentences.
- **Don't** use nondescript link text, like "click here" or "learn more".
- **Don't** include full URLs (naked links) or URL shorteners (bit.ly links) in web content.
- **Don't** hyperlink the same link text more than once on a page if the links lead to different URLs.

Accessible Content Core Skill 5: Alternative Text

Alternative text (or alt text) is used to describe the essential information in images, tables, charts, diagrams and other graphics. Alt text allows people who use screen readers to understand images and other graphics. It is important to get in a habit of adding alt text to all images and other graphics.

What you include as alt text depends on how you are using an image or graphic. There are four main types of images that require different types of alt text:

- Informative Images
- Functional Images
- Decorative Images
- Complex Images

Informative Images

Images or pictures that visually represent information should include alt text that describes the image as a whole. Below is example of the YRDSB logo as an informative image.

The standard alt text when using the YRDSB logo is: **"Logo for York Region District School Board (YRDSB) in black and red"**.

This alt text describes the image as a whole. You do not need to write out what the actual logo looks like or how the words are positioned within the logo. **Please Note:** it is not necessary to include a "Title" for alt text.

Functional Images

Images that are used as links or buttons are known as functional images. They should include alt text that describes the function or action of the image.

This same image of the YRDSB logo (above) has different alt text when used as a functional image that links to the YRDSB home page. The new alt text is: **"York Region District School Board (YRDSB) home page"**.

Decorative Images

Certain images or graphics only provide visual decoration to a page, such as line breaks or background images in a slide deck. Decorative images still need some form of alt text (e.g., "decorative line" or "decorative background") or what is called a "null text alternative" (`alt=""`) when creating content in HTML. This informs a screen reader that there is an image.

Decorative images can be used effectively in moderation, just like the use of colour. But always consider whether any image or other non-text element adds value to your content in a meaningful way.

Complex Images

Charts, tables, diagrams and other informational graphics are known as complex images. Accessible charts or graphs need two elements:

1) a brief description of the chart or graph as alt text; and
2) a detailed description in the text before and/or after the chart or graph.

Descriptive text before charts: The wider impact of disability was examined in a 2019 study by the Angus Reid Institute in partnership with the Rick Hansen Foundation. The study found that 86% of Canadians are impacted by disability in some way - either directly affected (24%), affiliated through a family member or close friend with a disability (30%), or concerned (32%) about how disability will affect them in the next 5 to 10 years.
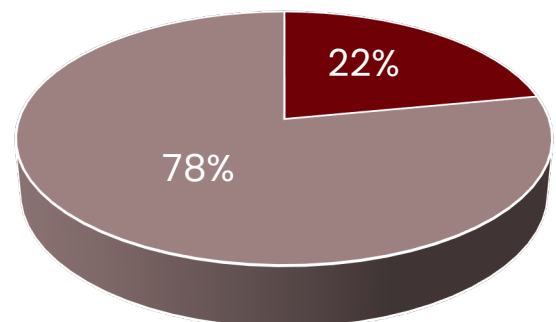
Relationship to Disability in Canada (2019)

24%...
30%...
32%...
14%
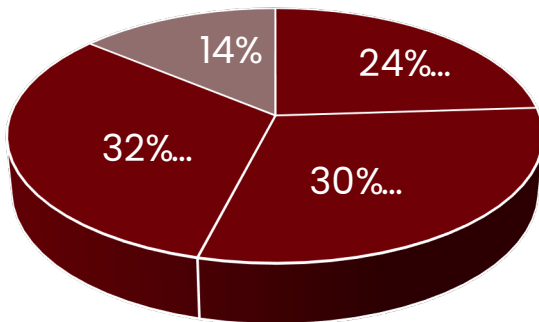
■ Affected by disability in some way
■ Unaffected by disability

Alt text: Pie chart showing percentage of Canadians with some relationship to disability (86%) (source: Angus Reid Institute)

Disability in Canada (2017)

22%
78%

■ Canadians with disabilities
■ Canadians without disabilities

Alt text: Pie chart showing percentage of Canadians with (22%) and without (78%) disabilities (source: 2017 Canadian Survey on Disability)

Descriptive text after charts: The 2019 data also highlights the importance of accessibility by showing how disability does not only impact people with disabilities, but affects almost everyone. Based on findings from the 2019 Angus Reid Institute study, only 14% of Canadians believed that they have no relationship or concerns when it comes to disabilities. While recognizing that 22% of Canadians have a disability, it can be more impactful to also state that disability affects 86% of Canadians in some way.

Visit the W3C Web Accessibility Tutorial on Images Concepts to learn more about the alt text required for different types of images.

Do…

- Add alternative text (alt text) to all images and other graphics as a regular practice.

- Put key information first and keep the alt text concise.

- Choose appropriate alt text based on the type of image or graphic.

- **Informational images:** Add alt text that describes the information, not the image.

- **Functional images:** Add alt text that describes the link or "action" of the image.

- **Complex images:** Add brief alt text for charts or tables in addition to descriptive text before or after the graphic.

- **Decorative images:** Add alt text indicating the image is decorative.

Do Not…

- **Don't** forget to add alt text to all images and other graphics.

- **Don't** include long or detailed descriptions as alt text.

- **Don't** describe what the actual image or graphic looks like as alt text.

Accessible Content Core Skill 6: Tables

Tables allow us to present content in a logical and organized way. Accessible tables must be formatted properly and include a table summary. Here are some best practices to ensure tables are more accessible to everyone, including people with disabilities.

Table Use

Tables should only be used to present data. Refer to the example table below.

Schools by Area	Elementary	Secondary
North	45	8
Central	45	8
West	39	8
East	58	11

Do not use a table to format the layout of a document or webpage. Removing table borders to visually format a page with columns is not accessible to screen readers.

Instead, use the specific column tools for formatting information side-by-side (which was used to format this section of text).

Simple Structure

The information in a table should be easy to follow across and down. Tables presented this way will also be accessible to people using a screen reader, which reads each cell from left to right and top to bottom.

The structure of tables should be kept simple by not using the merge or split cells tools. Combining, merging or splitting cells can make information harder to understand for both visual and non-visual users.
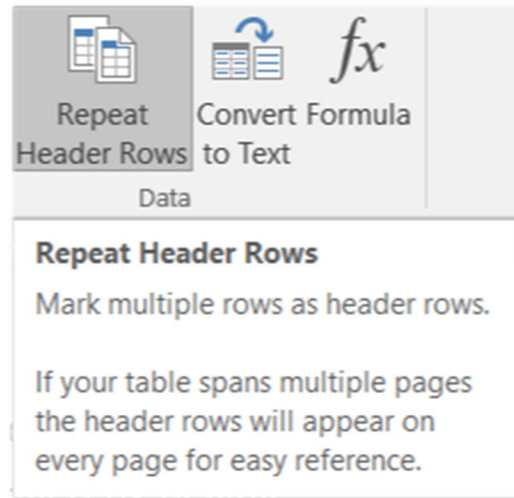
This also means any table titles should go above the table (as a heading), and not in the top row of the table as merged cells.

Header Row

The first row and column of all tables need to be identified as headers. The "Header Row" and "First Column" are usually identified by default.

However, the "**Repeat Header Rows**" needs to be enabled manually in Microsoft Word so that the header row appears on each page if the table continues onto multiple pages.

Repeat Header Rows

Mark multiple rows as header rows.

If your table spans multiple pages the header rows will appear on every page for easy reference.

The "Repeat Header Rows" feature makes tables more accessible to everyone.

A header row offers context to someone using a screen reader by referencing the header row before reading the information below it. For example, the accessible table below would be read by screen reader software like this: "First Name Riley, Last Name Smith, Age 9, Grade 4; First Name Ryan, Last Name Lee, Age 8, Grade 3".

First Name	Last Name	Age	Grade
Riley	Smith	9	4
Ryan	Lee	8	3

Without a header row, a person using a screen reader will not understand the context of the table. For example, if the same table (above) did not have a header row identified, the reading order for screen reader software would be: "First Name, Last Name, Age, Grade; Riley, Smith, 9, 4; Ryan, Lee, 8, 3".

Table Summary

Tables are considered complex images that need alt text. All tables should include a summary of the information within the table as alt text and/or in the text around the table.

Do…

- Use a table to present or compare data using rows and columns.

- Add the table title above the table as a heading.

- Create multiple tables separated by headings above each table if the data requires multiple headings.

- Ensure row and column headers are identified, including the "Repeat Header Rows" in Microsoft Word.

Don't…

- **Don't** use tables just to format the layout of information as columns.

- **Don't** add the table title in the first row by merging cells.

- **Don't** merge or split cells in a table.

- **Don't** leave any empty cells in a table.

- **Don't** add a table within another table.

Accessible Content Core Skill 7: Audio and Video

Audio and video media content need to be accessible in different and alternative formats. Most people are used to hearing and seeing videos, but we must also ensure that videos are also accessible in other ways. There are four alternative formats that should be used to make audio and video content more accessible:

- [Captions](#)
- [Transcripts](#)
- [Audio Descriptions](#)
- [Sign Language Interpretations](#)

The [W3C Web Accessibility Initiative](#) provides more information with examples and other resources on making audio and video media accessible.

Captions

Captions display all audio content from a video in text on the screen, including speech, sound effects and music. There are two types of captions:

1. **Closed Captions (CC)** - can be turned on or off by the user; and
2. **Open Captions (OC)** - are always visible as part of the video and cannot be turned off.

Closed captions are a good and essential practice for making video content more accessible. When possible though, open captions should be included with video content as a best practice. The benefits of captions for those who need them outweighs the inconvenience to those who may find them distracting.

Captions benefit people with and without disabilities by providing:

- Essential access for people who are Deaf or hard of hearing;
- Support for people with learning disabilities related to difficulties

processing speech or audio-video media;

- Support for English language learners;

- A preferred way of processing information for people with reading/writing learning styles;

- A way to watch video content in quiet or noisy environments; and

- A solution to poor audio quality or sound-related technical difficulties.

Automatic live captions are now widely available as accessibility features of online video platforms such as Google Meet, Microsoft Teams and YouTube. However, always be mindful of caption quality and the accuracy of automatic caption and/or transcription software.

Did you know? The Canadian Radio-television and Telecommunications Commission (CRTC) [standard for caption quality](#) of pre-recorded content is 100% accuracy. For live programming, 98% accuracy is required for captions in English and 85% accuracy for captions in French.

Transcripts

Transcripts are the text version of audio content. Transcripts offer many of the same benefits as captions, but are often provided separately from the audio or video content. There are two types of transcripts:

1. **Basic transcripts** - are the audio content in text format; and

2. **Descriptive transcripts** – include the text for the audio content as well as the visual information needed to understand the content and context.

Audio-only content, like podcasts, must include a basic transcript. Transcripts can be included in the description for the video, the comments section of the video, or in a link to the transcript.

Audio-video content should include a descriptive transcript as a best practice.

Audio Description

Audio description explains the visual information needed to understand video content. This is also known as **video description** or **described video**. Pre-recorded audio-video content must include audio descriptions to provide important visual information to people who are blind or have low vision.

Sign Language Interpretations

Sign language is the first language of many people who are Deaf, but not everyone who is deaf knows sign language. The Canadian Association for the Deaf uses American Sign Language (ASL) and la langue des signes québeécoise (LSQ) as its two official languages.

Sign language interpreters across Ontario use ASL. It is optional to include sign language interpretations as a media alternative for audio-video content. However, the use of sign language interpretations for videos and live events is considered an accessibility best practice.

Do…

- Include accurate captions and transcripts in all audio-video content.

- Include transcripts in all pre-recorded audio-only content.

- Ensure captions (automatic or real-time) are available in any virtual meeting.

- Include sign language interpretations in all audio-video content and live events as a best practice.

Do Not…

- **Don't** forget to include captions in all pre-recorded audio-video content.

- **Don't** forget to include transcripts in all pre-recorded audio-only content.

- **Don't** provide inaccurate captions or transcripts.

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