

# MANUAL ACCESSIBILITY TESTING CHECKLIST

## CATEGORIES FOR TESTING

- Keyboard Navigation
- Non-Visual Navigation with a screen reader
- Alternate Visual Access
- Usability
- Non-Audio Access
- STEM Content
- Downloadable Files

## Testing Tools Needed

- Keyboard
- WAVE Toolbar <http://wave.webaim.org/> or browser extension
- Screen reader (and knowledge of how it works)
  - JAWS
  - VoiceOver (Mac),
  - Narrator (Windows)
  - NVDA (Windows)
- Color contrast analyzer
  - <https://chrome.google.com/webstore/detail/color-contrast-analyzer/dagdlcijhfbmgkjokkijcnnfimlebcl?hl=en>

## Using the Checklist

Automated testing such as using the [WAVE Tool](#) only captures about 30-50% of accessibility issues. Use this checklist to follow up with manual testing.

- Each section includes instructions on how to use applicable testing tools.
- The desirable answer for each yes/no question is “Yes.”
- Any question answered with “No” is an accessibility issue that needs to be addressed.
- It is helpful to provide details or screenshots of issues found.

## TESTING KEYBOARD NAVIGATION

The first step to manual testing is to throw away your mouse. See if you can navigate the page, including all menus and interactive elements, using only the keyboard.

### KEYBOARD FOCUS

1. Use the TAB, ENTER, SPACE, and UP and DOWN ARROW keys to navigate.
- You can always see the keyboard focus when tabbing through the page.  Yes  No
  - Keyboard focus *does not* unexpectedly shift to other elements.  Yes  No

### TAB ORDER

1. TAB through the page to see if the order is logical.
  2. See if you can activate all interactive elements with the ENTER or SPACE keys.
- Tab order is logical.  Yes  No
  - All elements on the page can be reached by keyboard. This includes links, dropdown menu items, buttons, and other interactive elements.  Yes  No
  - If dropdown menus exist, the keyboard can be used to select and open items in them.  Yes  No  N/A

### ELECTRONIC FORMS

- N/A (There are no forms.)
- Tab order of form fields is logical.  Yes  No
- In dropdown menus, you can navigate and select items using the keyboard alone.  Yes  No
- Data entered is retained if the page is refreshed or too much time is taken to fill out form fields.  Yes  No
- If a required field is left blank, keyboard focus shifts to that field when user is notified.  Yes  No

### DIALOG BOXES AND POPUPS

- N/A (There are no dialog boxes.)
- Dialog boxes or pop-up menus receive keyboard focus.  Yes  No
- Dialog messages can be dismissed using the keyboard.  Yes  No
- Focus returns to a logical location when dialog boxes are closed.  Yes  No

### MULTIMEDIA CONTROLS

Includes features such as videos, audio files, calendars, Flash content, and photo carousels.

- N/A (There are no multimedia.)
- Manual controls exist (e.g. start, pause, go back, go forward).  Yes  No
- Controls can be tabbed through.  Yes  No
- Controls can be activated using the keyboard.  Yes  No

## TESTING NON-VISUAL NAVIGATION (SCREEN READER)

When testing with your screen reader, use the same keyboard navigation strategies that you used in the previous section (TAB, ENTER, SPACE, and ARROW KEYS). This time, listen to how the screen reader interprets the page as you navigate with the keyboard.

How to use a screen reader:

- VoiceOver (Mac) <https://help.apple.com/voiceover/info/guide/10.12/>
- Narrator (Windows) <https://support.microsoft.com/en-us/help/22798/windows-10-narrator-get-started>
- NVDA (Windows) <http://webaim.org/articles/nvda/>
- JAWS <http://webaim.org/articles/jaws/>

### LINKS – DESCRIPTIVE TEXT

One of the ways a screen reader user navigates a page is by using the TAB key to skip through the links on the page, or by bringing up a list of links. Links should be descriptive so that a user can easily determine where they will go even when taken out of context.

- Links are descriptive, without generic text such as “click here”.  Yes  No
- Distinguishing information is placed at the beginning of links.  Yes  No
- The texts of links are intuitive when listed alphabetically.  Yes  No

### LOGICAL HEADINGS

Screen reader users also navigate content using headings. Headings allow them to jump to a specific section instead of having to listen to the entire page.

- Headings are used logically to provide structure and indicate importance of the content.  Yes  No
- Heading levels are not skipped.  Yes  No
- Pages can be navigated using headings.  Yes  No

### SKIP NAVIGATION LINKS

A skip navigation link is helpful for users who don't want to work their way through all the links on the page before getting to the main content. This link does not have to be visible on the page, but it should be listed first in the tab order.

- Skip navigation links are present.  Yes  No
- Skip links work as intended using JAWS, skipping to the main content of the page.  Yes  No

### IMAGES

Any non-text element needs a text description that screen reading software can read aloud to the listener. It should describe the purpose of the image in context.

- N/A (There are no images.)
- Purely decorative images have null alternate text (ALT="").  Yes  No
- All meaningful images have descriptive alternate text.  Yes  No
- All navigation buttons have descriptive alternate text.  Yes  No

## MULTIMEDIA

Includes features such as videos, audio files, calendars, Flash content, and photo carousels.

- N/A (There are no multimedia.)
- Multimedia controls have alternate text.  Yes  No
- Video or audio do not start to play automatically, only when triggered by the user.  Yes  No
- You hear what you expect when selecting controls.  Yes  No
- Using the controls is intuitive.  Yes  No
- Videos have audio descriptions available for any information that is only conveyed visually.  Yes  No
- More video requirements in section "TESTING NON-AUDIO ACCESS".

## FORMS

- N/A (There are no forms.)
- Form fields have descriptive labels.  Yes  No
- Appropriate descriptive labels are present and read by screen reader when tabbing through form fields.  Yes  No
- You can fill out the forms and submit them successfully with screen reader.  Yes  No
- Buttons are labeled and read correctly by screen reader.  Yes  No
- If a required field is left blank, screen reader reads the error text and navigates dialog buttons.  Yes  No
- When an error dialog is dismissed, screen reader automatically returns to the empty field.  Yes  No

## LAYOUT TABLES

Layout tables are not recommended for accessibility. CSS should be used rather than tables to layout information.

- N/A (There are no layout tables.)
- Tables are not used purely for positioning content.  Yes  No
- If tables are used for layout, they *do not* have designated header rows.  Yes  No
- If tables are used for layout, the reading order of the cells makes sense when linearized.  Yes  No
- If tables are used for layout, they allow end user customization and text scaling.  Yes  No
- Tables are not nested or filled with spanned or 'spacer' cells.  Yes  No

## DATA TABLES

- N/A (There are no data tables.)
- Data tables have designated header and/or column rows.  Yes  No
- Tables have captions (short text descriptions).  Yes  No
- Tables are not nested or filled with spanned or 'spacer' cells.  Yes  No
- Row or column headers are associated with the appropriate **Scope** attribute.  Yes  No

## FRAMES

- N/A (There are no frames.)

If Frames are found (not recommended for accessibility):

- Each frame has a descriptive title attribute value.  Yes  No
- When you refresh a page, it stays on the current frame.  Yes  No
- While listening with screen reader, you can navigate between frames  Yes  No
- While listening with screen reader, you can tell what the purpose of each frame is  Yes  No

## CAPTCHA

If CAPTCHA is used, it must be fully accessible and simple to use.

- N/A (There is no CAPTCHA.)
- CAPTCHA is fully accessible by keyboard.  Yes  No
- CAPTCHA is fully accessible to screen reading software.  Yes  No
- Audio CAPTCHA is fully accessible by screen readers, including a pause that allows the screen reader to finish before the audio begins.  Yes  No
- Audio CAPTCHA has an alternative for users with hearing impairments.  Yes  No

## TESTING ALTERNATE VISUAL ACCESS

Many users are colorblind or have low vision. Color choice matters for both groups of users. Contrast impacts those with low vision, while those who are colorblind cannot distinguish between certain colors.

### CHOICE OF COLOR

- Color is not used as the sole means of conveying information on the page.  Yes  No
- The WAVE test indicates sufficient contrast (Minimum AA) for text on solid color backgrounds.  Yes  No
- The [Chrome WCAG 2.0 Color Contrast Analyzer](#) indicates sufficient contrast for text on top of images or gradient backgrounds.  Yes  No
- Hover state has sufficient contrast or underline  Yes  No

### FONT SIZE / ZOOM

This is important for users with low vision who change zoom settings.

- Text is actual text (e.g. not images of text).  Yes  No
- Font sizes increase when you zoom in on the page.  Yes  No
- Text does not become pixelated when zooming in on the page.  Yes  No
- Items do not become jumbled when zooming in on the page.  Yes  No

## USABILITY

Many users have a non-apparent disability, such as a traumatic brain injury or a cognitive or learning disability, that affects their ability to process information. Clear organization of information is vital for these users.

### CLEAR AND SIMPLE CONTENT

- Fonts are basic, legible, easy to read.  Yes  No
- The viewing area is not crowded or chaotic.  Yes  No
- There is plenty of white space.  Yes  No
- There is no flashing content, blinking or moving text.  Yes  No

### CONSISTENCY AND LOGIC IN VISUAL NAVIGATION

- Menus are consistent across the entire product.  Yes  No
- Visual navigation is logical.  Yes  No

## TESTING NON-AUDIO ACCESS

This includes audio files such as podcasts as well as videos.

- N/A (There is no audio or video content.)
- Users have control over whether or not to start playing the video or audio.  Yes  No
- All videos have captions.  Yes  No
- Existing captions are accurate.  Yes  No
- Captions have sufficient contrast.  Yes  No
- All audio files have a link to a transcript.  Yes  No

## STEM (SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS) CONTENT

This includes math or other content that uses special symbols:

- N/A (There is no content with math or other symbols.)
- Screen reader recognizes and reads the symbols (Formatted using MathML, MathJax, LaTeX).  Yes  No

## DOWNLOADABLE FILES

Documents that are linked for download from a site also need to be accessible.

- N/A (There are no downloadable files.)
- PDFs are searchable / OCR'd (you can highlight or search text in the document).  Yes  No  N/A
- PDFs have tags and the reading order is logical.  Yes  No  N/A
- PDFs have alt text for non-text elements.  Yes  No  N/A
- Word documents have hierarchical headings.  Yes  No  N/A
- Word documents have alt text on non-text elements.  Yes  No  N/A
- PowerPoint slides have logical reading order.  Yes  No  N/A
- PPT slides have alt text on non-text elements.  Yes  No  N/A
- PPT slides have sufficient contrast.  Yes  No  N/A