

Tips for Creating Accessible Excel Spreadsheets and Tables

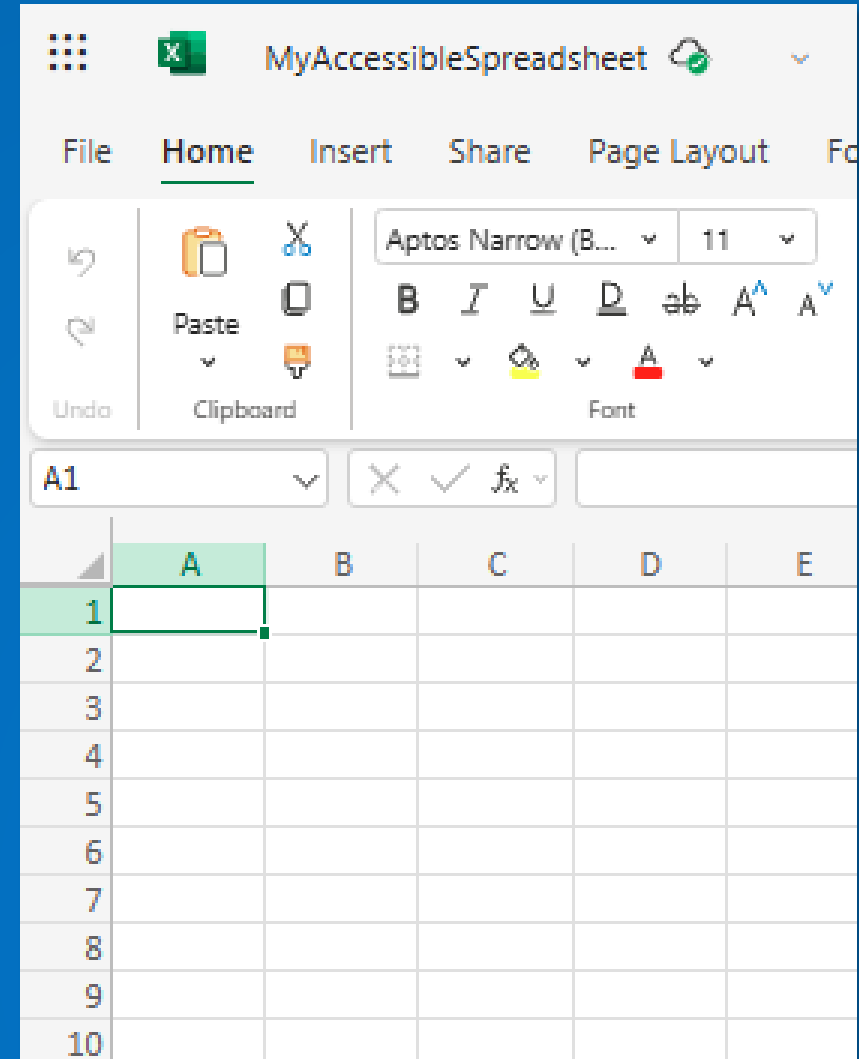
Add a Unique and Descriptive Title to your worksheet

Title should be all one-word and use the Pascal Case naming convention

Example: RickHansenFoundation instead of Rickhansenfoundation

Avoid naming the sheet with a string of numbers and letters like 39A8674PtF9-E.

Use Excel's styles to create headings



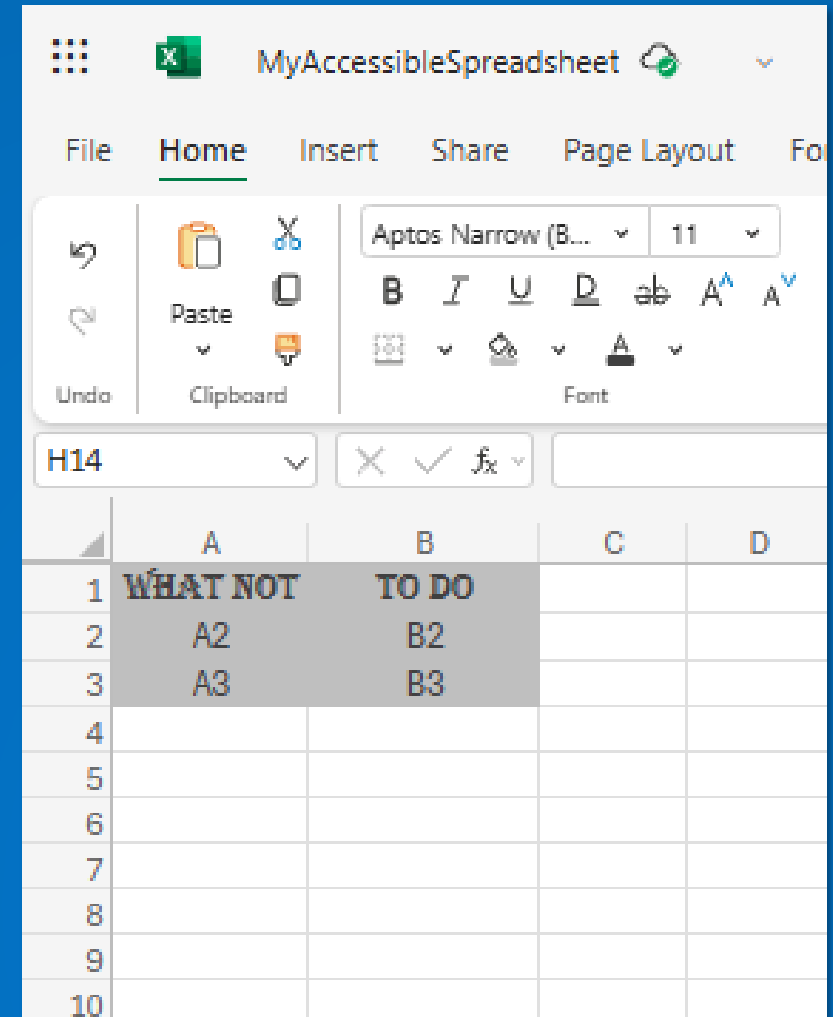
Use Accessible Font Formats and Colours

Choose sans serif fonts like Arial and Calibri.

Aim for a larger font size such as 14 points.

Do not align text to the center.

Avoid using font attributes like Italics or All capital letters



Colour contrast



There must be sufficient contrast between text and background.



Ensure a **4.5:1 contrast ratio**.

Example of good contrast

Black text on White has
21:1 contrast ratio

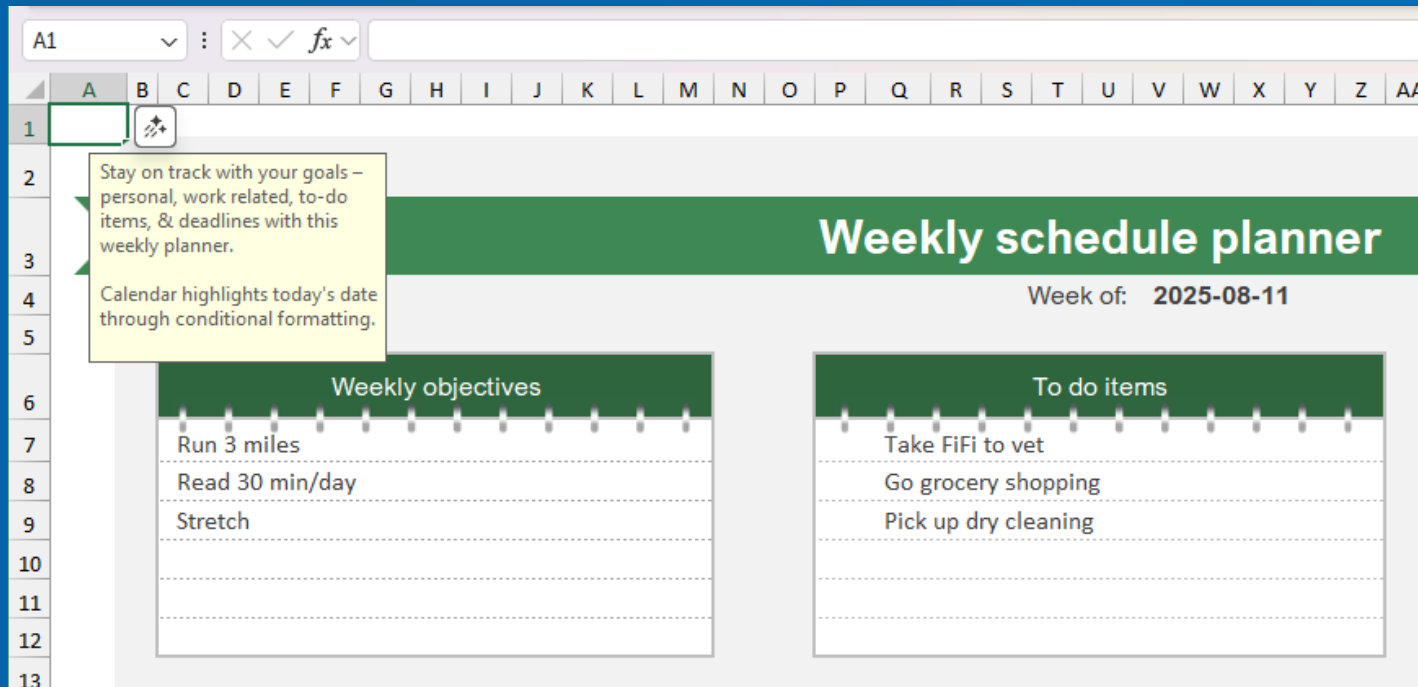
Example of bad contrast

Light grey text on White has
1.3:1 contrast ratio



Check contrast with tools like [ContrastChecker.com](https://www.contrastchecker.com)

Add a Summary to Cell A1



The A1 cell is the first cell read by screen readers.

Use it to describe the worksheet or workbook:

- Explain the structure.
- Mention any tables, graphs, or irregular items.
- Identify the starting cell for important items.

Add White Space Around the Text

	A	B
1	Region	Populaiton
2	Vancouver	600,000
3	Toronto	2,600,000
4	Montreal	1,600,000

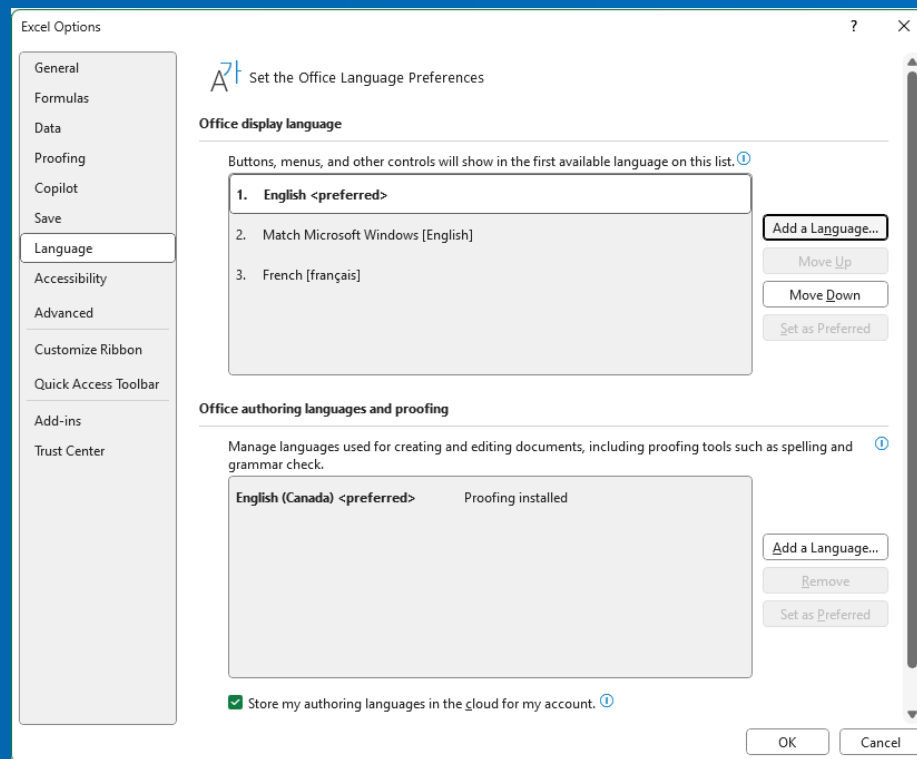


- Increase column width and row height to create space around the text
- Helps people with low vision to read easily.
- Do not create whitespace by leaving empty columns or rows between text

Define the Language of the Workbook

You can change the Language by selecting:

**File >
Options >
Language.**



Important so that the screen reader can pronounce the text correctly.

Unlike Word, you can only define the language for the entire spreadsheet.

Defining the language also affects details like currency, dates, etc.

Ensure Hyperlinks are Informative

Hyperlinks should clearly describe their destination or purpose. This helps users who navigate using links with assistive technologies.

Do not use URLs as screen readers do not read them properly.



Check out our Website to learn more.



Go to <https://www.rickhansen.com/> to learn more

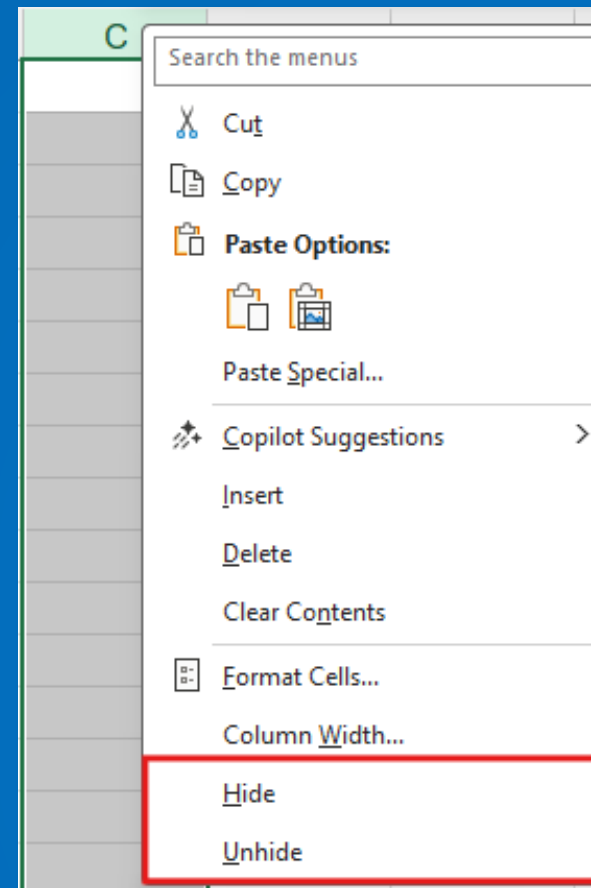
Hide Unused Rows, Columns and Cells

Hiding unused Rows, Columns and cells helps:

Hide the extra or irrelevant content from people who use Assistive technology

Reduce visual clutter

Minimize possible distractions for people with learning disabilities



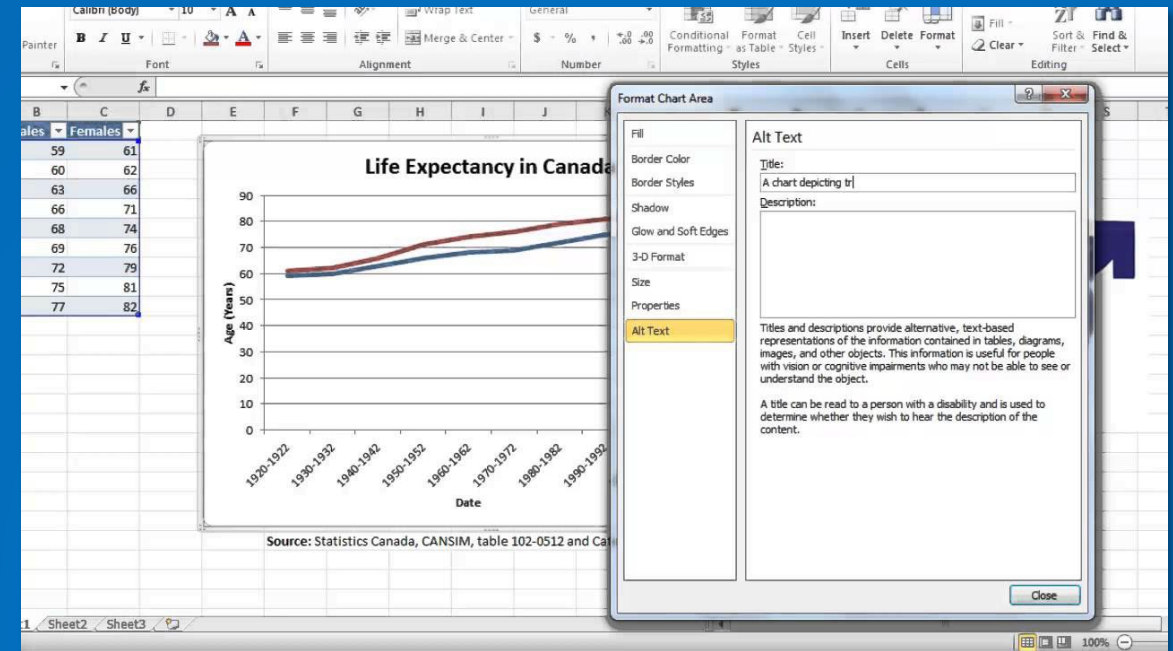
**Right-click on
any column to
Hide or Unhide.**

Add Alt-Text to Images

Provide Alt-Text descriptions for informative images

Provide a long description for complex images like
Charts and Shapes

Don't describe decorative images



Create Accessible Tables

Avoid using fixed-width tables

Avoid creating table using the tab key

Do not rely on borders to show a table

Use a simple table structure with columns headers

For complex tables, break them up into multiple simpler tables.

Use a simple table structure

Always include headers for rows and columns.

Keep data separate, for example: 'Book title' in one column, 'Author' in another.

For complex tables, break them up into multiple simpler tables.



Do not

Merge cells

Split cells

Nest tables

Mark empty cells with "N/A" or "/"



Questions?

Email us at Info@RickHansen.com

Accessible Spreadsheets & Tables - Step-By-Step Guide

How to write a descriptive title in spreadsheet programs	2
Colour contrast	3
How to give worksheets a unique title	4
How to delete blank worksheets.....	5
Add a summary of the worksheet/workbook to the A1 cell.....	6
How to increase the column and row width in your worksheets	7
How to define the language in workbooks.....	8
How to create accessible hyperlinks in your worksheet	9
How to link to different cells in your worksheet.....	10
How to create basic accessible tables.....	11
How to add alt text/long descriptions to your graphs and charts	12
How to freeze the heading columns and/or rows	12
How to hide unused rows and columns.....	13
How to add alt text to images	14
How to use the Accessibility Checker in Excel	14

How to write a descriptive title in spreadsheet programs

A descriptive title helps users understand the purpose of your spreadsheet and improves accessibility by making the file easier to identify.

In Microsoft Excel:

After saving the spreadsheet and creating a file name, you can add a title to the spreadsheet's properties.

- In Windows: Select "File" > "Info" > "Add Title."
- On a Mac: Select "File" > "Properties" > "Summary" > add a "Title."

In Google Sheets:

- Add a workbook title in the top-left textbox. To rename the workbook, click the textbox again or select "File" > "Rename."

In Apple Numbers:

- Save the workbook and input the file name. You can rename your spreadsheet by selecting "File" > "Rename."

Colour contrast

To ensure readability, the text in your worksheet must have sufficient contrast against its background. This is especially important for users with low vision.

How to find the hex code of your colours:

In Microsoft Excel:

- Click on the font dropdown menu and select “More Colours.”
- In Windows, click the “Custom” tab.
- On Mac, click “Colour Sliders” and select “RGB Sliders” from the dropdown menu.

In Google Sheets:

- Click on a colour toolbar icon (e.g., font colour) and select the “Custom” option to view the hex code.

In Apple Numbers:

- Click the colour wheel labelled “Click to show more colours or create your own.”
- Select “Colour Sliders” and choose “RGB Sliders” from the dropdown menu. The hex code appears at the bottom of the popup.

How to give worksheets a unique title

Giving each worksheet a unique title helps users navigate your workbook more easily, especially when using assistive technologies.

In Microsoft Excel:

- Right-click on the worksheet title you want to change > select “Rename” > type the new title > press Enter.

In Google Sheets:

- Right-click or click the arrow beside the worksheet title > select “Rename” > type the new title > press Enter.

In Apple Numbers:

- Right-click or click the arrow beside the worksheet title > select “Rename” > type the new title > press Enter.

How to delete blank worksheets

Removing unused worksheets helps streamline your document and reduces confusion.

In Microsoft Excel:

- Right-click on the worksheet > select “Delete.”

In Google Sheets:

- Right-click on the worksheet > select “Delete” > click “Okay” in the confirmation popup.

In Apple Numbers:

- Click on the worksheet > open the dropdown menu > select “Delete.”

Add a summary of the worksheet/workbook to the A1 cell

Adding a summary in cell A1 provides context for screen reader users and helps them understand the structure and contents of the worksheet.

Include:

- A description of the workbook or worksheet's structure, especially if there's more than one table.
- Any accessibility techniques used.
- Notes on tables, graphs, and irregular items.
- The starting cell for the items mentioned in the summary.

Note: This is not possible in Apple Numbers, as the first row is reserved for headers.

How to increase the column and row width in your worksheets

Adjusting column and row sizes improves readability and ensures that content is not cut off or cramped. The ideal width and height depend on your content.

In Microsoft Excel:

- Column width: Select the column by clicking its label (e.g., A, B, C...) > right-click > choose "Column Width..." > increase the number > click "Okay."
- Row height: Select the whole sheet (Ctrl + A or Command + A) or click the top-left triangle > right-click > select "Row Height..." > increase the number > click "Okay."

In Google Sheets:

- Column width: Select the columns > right-click > "Resize columns X-X" > enter a new width or choose "Fit to data" > click "Okay."
- Row height: Select the rows > right-click > "Resize rows #-#" > enter a new height or choose "Fit to data" > click "Okay."

You can resize multiple rows or columns at once, but they will all be set to the same size unless you use "Fit to data."

In Apple Numbers:

- Column width: Select the column(s) > in the right "Table" toolbar, increase the "Width" using the up arrow, change the point value, or click "Fit."
- Row height: Select the row(s) > in the right "Table" toolbar, increase the "Height" using the up arrow, change the point value, or click "Fit."

To resize all rows or columns, deselect everything and adjust the height/width in the "Table" toolbar.

How to define the language in workbooks

Defining the language ensures screen readers pronounce content correctly, especially in multilingual documents.

In Microsoft Excel:

- Click “Tools” > “Language” > select the language > click “Okay.”

In Google Sheets:

- Click “File” > “Settings” > select the language for the spreadsheet.

In Apple Numbers:

- Click “File” > “Advanced” > “Language & Region” > choose a language > click “Okay.”

How to create accessible hyperlinks in your worksheet

Hyperlinks should be descriptive and clearly indicate their destination. Avoid vague phrases like “Click here.”

In Microsoft Excel:

- Click the cell > press Ctrl + K (Windows) or Command + K (Mac) > add the URL in the popup.

In Google Sheets:

- Click the cell or highlight the text > press Ctrl + K (Windows) or Command + K (Mac) > add the URL.
- To link to a table or another sheet from the A1 summary: highlight the text > press Ctrl + K or Command + K > select “Sheets and named ranges” > choose the sheet or range (e.g., A2:E16).

In Apple Numbers:

- Highlight the text > press Command + K > choose a “Link to” option (webpage, email, phone number, or sheet) > add the URL.

How to link to different cells in your worksheet

Linking to specific cells helps users jump directly to relevant data.

In Microsoft Excel:

- Click the cell > press Ctrl + K or Command + K > in the popup, select “This Document” > enter a cell (e.g., A2) or worksheet name.

In Google Sheets:

- Click the cell or highlight the text > select “Sheets and Named Ranges” > choose another worksheet or cell range.

In Apple Numbers:

- Highlight the text > select “Sheet” in the “Link to” dropdown > choose the worksheet > press “Okay.”

How to create basic accessible tables

Tables should be clearly defined with header rows to help screen readers interpret the data.

In Microsoft Excel:

- Select the table cells > “Insert” > “Table” (or Ctrl + C).
- Select “My table has headers” to enable the header row.
- If you didn’t select that option initially, manually check “Header Row” under the “Table” toolbar.

In Google Sheets:

- Select the table cells > “Format” > “Alternating Colours” > ensure “Header” is selected.
- To add filters: select the headings > “Data” > “Create filters.”

In Apple Numbers:

- Tables are created automatically.
- Under “Format” > “Table,” define header rows/columns.
- You can also adjust font size, gridlines, and alternate colours.
- If not preformatted: right-click the row/column label > choose “Convert to Header Row/Column.”

How to add alt text/long descriptions to your graphs and charts

Long descriptions help users understand complex visuals. These can be added in surrounding text or a separate sheet (not in the A1 summary).

In Microsoft Excel:

- Select the chart > right-click > “View Alt Text” > edit the auto-generated description.

In Google Sheets:

- Click the three-dot menu in the chart pane > “Alt text” > add your description.

How to freeze the heading columns and/or rows

Freezing headers keeps them visible while scrolling, which is helpful for users with low vision.

In Microsoft Excel:

- Select the cell below and to the right of the headers > “View” > “Freeze Panes.”

In Google Sheets:

- To freeze rows: select the row > right-click > “View more row actions” > “Freeze up to row #.”
- To freeze columns: select the column > right-click > “View more column actions” > “Freeze up to column X.”

In Apple Numbers:

- To freeze rows: select the row > right-click or use the green arrow > “Freeze Header Rows.”
- To freeze columns: select the column > right-click or use the green arrow > “Freeze Header Columns.”

How to hide unused rows and columns

Hiding unused areas reduces clutter and improves navigation for screen reader users.

In Microsoft Excel:

- To hide columns: select the column next to your content > Shift + Ctrl + Right Arrow > right-click > “Hide.”
- To hide rows: select the row below your content > Shift + Ctrl + Down Arrow > right-click > “Hide.”
- To unhide: click the top-left corner > right-click > “Unhide.”

In Google Sheets:

- To hide columns: select the column next to your content > Shift + Ctrl + Right Arrow > right-click > “Hide Columns X–X.”
- To hide rows: select the row below your content > Shift + Ctrl + Down Arrow > right-click > “Hide Rows #-#.”
- To unhide: click the small arrows on the last visible row/column.

In Apple Numbers:

- To hide columns: select the column next to your content > Shift + Control + Right Arrow > right-click > “Hide Selected Columns.”
- To hide rows: select the row below your content > Shift + Control + Down Arrow > right-click > “Hide Selected Rows.”
- To unhide columns: select a column > right-click or use the arrow > “Unhide all Columns” or “Unhide columns X–X.”
- To unhide rows: select a row > right-click or use the arrow > “Unhide all Rows” or “Unhide rows #-#.”

How to add alt text to images

Alt text allows screen readers to describe images. Mark decorative images so they're ignored by assistive tech.

In Microsoft Excel:

- Right-click the image > “Edit Alt-text” or select the image > “Format” > “Alt-text.”
- A popup appears on the right to enter your description.

In Google Sheets:

- If the image is in a cell: right-click > “Image” > “Add alt text to cell.”
- A popup appears on the right to enter your description.

In Apple Numbers:

- Click the image > “Format” > “Image” tab > add alt text in the “Description” textbox.

How to use the Accessibility Checker in Excel

Excel's Accessibility Checker helps identify and fix issues in your spreadsheet.

- Click the “Accessibility” tab > “Check Accessibility.”
- Or click the “Accessibility” status at the bottom-left (e.g., “Accessibility: Good to go”).
- A popup appears on the right with inspection results. Click on issues to locate and fix them.

Important: The checker is a helpful starting point but may not catch every issue. Manual review is still essential.