![Wakefield District Health & Care Partnership logo]

Producing accessible content and documents

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Why do we need to make things accessible?

As a public sector body Wakefield District Health & Care Partnership (HCP) has a legal obligation to make reasonable adjustments under the Equality Act 2010 to ensure equitable access.

When we use the word 'accessible' in this context we are using it to describe whether a document, website, electronic survey (like smart survey or survey monkey) can be used by people of all abilities and disabilities.

The [Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018](#) came into force on 23 September 2018. This says that public sector organisations must make their website or mobile app more accessible by making it 'perceivable, operable, understandable and robust'.

[The Equality and Human Rights Commission (EHRC)](#) enforces the requirement to make public sector websites and mobile apps accessible (making them perceivable, operable, understandable, and robust). The [Minister for the Cabinet Office](#) is responsible for the monitoring and reporting on compliance.

Organisations that do not meet the accessibility requirement or fail to provide a satisfactory response to a request to produce information in an accessible format, will be failing to make reasonable adjustments. This means they will be in breach of the Equality Act 2010.

Documents published on [public sector websites must meet accessibility standards](#). This is so they can be used by as many people as possible, including those with disabilities. It is important to make sure any new content or features that you publish meet accessibility standards. If they do not meet those standards, you will have to go back and fix things. Anyone who edits or uploads content on your organisations website or app has a responsibility to make content and features accessible. This means:

- making sure any new [PDFs or other documents they create are accessible](#)
- [writing good link text](#)
- [structuring content well](#)
- Publishing [accessible images and videos](#)
- making sure new features work on [assistive technologies](#)

This means that from 2018 we had to ensure that all files and text content we share on our website, such as surveys, PDFs, PowerPoint presentations and Excel comply with these regulations. There are several things that we need to do when generating a PDF from Microsoft Word to make it accessible – this guide outlines the main steps that need to be taken so please try and follow it closely when producing your documents.

References:

This guidance has been developed using best practice and resources including information from: Diverse Cymru, Abilitynet, Webaim, Plain English Campaign, Microsoft, Adobe, Accessibility and Usability at Penn State, Devon and Torbay Plain English Guide, UK Government Digital Service, RNIB, Mencap, British Dyslexia Association, Imperial College, UKAAF , Smart survey and JISC.

If you need further advice, please see the accessibility information on MS Teams or your organisations intranet. Or you can contact your Equality, Engagement or Communications teams.

Contents

Section 1: Creating accessible content for documents

This section explains what you need to do to make a Microsoft Word document accessible using the formatting functions within Word 365. There is a quick reference section with hyperlinks at the beginning of the section with the essential information and then more detailed information for reference purposes.

Quick reference section

For creating accessible documents:

- ✓ For documents 6 pages or longer, include a table of contents using the Table of Contents command (found in the References section of the **toolbar).**

- ✓ Remember to insert page numbers so they can be used in the Table of Contents and users can easily navigate their way around a document.

- ✓ Remember to set your alignment and spacing accessibly. Always align text to the left. Do not centre or justify text or use vertical text. Use a line space of at least 1.5 and character spacing of at least Before 0 and After 6.

- ✓ Use the Heading Styles menu including Title, Heading 1, Heading 2, Heading 3 and Heading 4 to clearly layout and structure the document.

- ✓ You will need to set your font and text size to Arial font size12pt minimum. Larger font sizes for headings or emphasis are fine. You may use variations of Arial e.g. Arial Bold.

- ✓ Set font colour to 'automatic' instead of 'black'. Blue is fine for hyperlinks. Nothing should be indicated by colour alone, anything that is indicated by colour needs to have a secondary way for it to be distinguished.

- ✓ Avoid using light coloured text on a white background and dark coloured text on a dark background and avoid using text boxes with coloured backgrounds.

- ✓ Avoid putting important information in headers and footers (other than page numbers). If you do use footnotes, put them in point size 12.

- ✓ Use short sentences and paragraphs, average sentence length of 15 - 20 words.

- ✓ Write initialism or acronyms out in full the first time you use them, even if it is a commonly used term. E.g., first time you use "Health & Care Partnership (HCP)" and after this you can use HCP.

- ✓ Avoid using italics or underlining. Bold is fine to use for emphasising or bringing attention to things e.g. for Headings, underlining fine for hyperlinks. When separating words with a forward slash (/) always include a space either side e.g. clear / large print rather than clear/large print.

- ✓ [Format bullet points and numbered lists](#) by using the List Paragraph option in the Heading Styles menu.

- ✓ [Remember to use images illustrate your text and not convey new information](#) without explanation.
- ✓ When resizing an image, always do so proportionally. Never change the width or height without changing the other. This leads to images being squashed or stretched. Check that your image is not too small to be seen clearly or pixelated by being made too large.
- ✓ Make sure there is a reasonable clear gap between an image and text, or the layout will look crowded.
- ✓ Avoid fitting text around images. Placing images at the end of paragraphs allowing sufficient space between the text and the image, and "wrapping style" should be set as "In line with text".
- ✓ Avoid placing text over any background image, placing images in text boxes, or placing an image on top of another image.
- ✓ Avoid inserting images of scanned documents containing text as the content will not be recognised by screen readers. If possible, fully replicate the content of the scan either in the document itself (replacing the need for the scan) or type it in the alternative text field.
- ✓ **Do not** use the automatically generated alt text descriptions provided by MS Word. They are not helpful or accurate.

- ✓ [Alternative text (Alt Text)](#) can be added [by right clicking the image, clicking 'edit Alt text'](#), and then enter appropriate alternative text in the field that appears in the Alt Text sidebar. If image is decorative, leave field blank and check Mark as decorative.

- ✓ Don't type 'Picture of' or 'Image of' before your descriptive text and make your alt text as short as possible whilst still conveying the meaning of your image. If the content is substantial add this as text to the document rather than including it in alt text.

- ✓ [Tables should only be used to set out tabular data](#), not used to set the layout or style a page e.g., for an agenda or form.
- ✓ Use the Insert Table command to create a table and do not insert a table as an image as this is not accessible.
- ✓ **Do not use** split cells, merged cells, nested tables, or completely blank rows or columns. **Keep text horizontal.**
- ✓ Use appropriate column headings that accurately explain in simple terms the content of each column.
- ✓ If the table spans multiple pages, this header should be repeated by highlighting the row, right clicking it, going into '**Table properties'** then '**Row'** and checking the 'Repeat as header row at the top of each page. To make sure that rows do not split across pages, enter the table properties and uncheck '**Allow row to break across pages.**
- ✓ **Remember** to add alt text to the table properties section

- ✓ [Information contained in text boxes is not accessible to some assistive software](#). Avoid using them wherever possible. You can highlight text with colour rather than using text boxes but be careful with colour choices and contrast,

- ✓ The simplest way [to make flow charts more accessible](#) (apart from ensuring text is size 12 font black and colour contrast has been considered and accessible options chosen) is to save it as a picture using the Snip and Sketch tool, remember to add alt text and include text above it detailing the process that it covers.

- ✓ Make sure you add alt text to Graphs and Charts. Provide a summary of the chart in the text of your document.
- ✓ If the chart, graph, or table have been formatted in excel **keep this formatting**. **Do not** turn them into an image. Reduce unnecessary complexity in your images where

possible. Make sure your font style and size, colour etc are accessible. Make sure to provide context in the text in your document and refer to the graph or chart.

- ✓ When using hyperlinks avoid phrases like 'click here' and 'visit this document' and use descriptive text instead. Use meaningful text for hyperlinks; do not use the file address or path name.
  Example: of bad practice a): 'If you would like more information, click this link.'
  Example: of good practice b): 'If you would like more information, go to the Wakefield CCG website' or you could use 'The Wakefield CCG website has more information.'
- ✓ If you need to share a full URL for example you are printing a document or its going onto a poster then you should reduce the URL size.
  E.g. wakefieldccg.nhs.uk or (**wakefield.nhs.uk**).
- ✓ For a document that may be printed and accessed online you could use both examples b) and c).

- ✓ Remember to check your document for accessibility you can do this by using the Check Accessibility function which you will find in the File or Review Section of your ribbon. This will highlight any accessibility-related problems, describe why you should fix them, and give you guidance on how to do so.

  Please note that the Checker may not identify all issues and it is important to always review your work yourself to find the issues hiding from the Accessibility Checker.

- ✓ Save your document as a PDF to do this you will need to:
  1. **Click File** > **Save As** and choose where you want the file to be saved.
  2. In the **Save As** dialog box, choose PDF in the Save as type list. Then click **More Options.**
  3. Choose **minimum size for publishing**, then click **Options**
  4. Make sure the **Document structure tags for accessibility check box** is selected as in image below and then click OK.

More detailed information

Headings

Make sure that you use [Heading styles](#) including the Title, Heading 1, Heading 2, and Heading 3 etc. This clearly sets out the layout and structure of the document. This is important so that the bookmarks (when a PDF is generated) and table of contents function properly.

The **Title** style should be used to set out the title of the document on the first page with the Table of Contents following it. **Heading 1** should be used to denote the main sections of a document, whilst **Heading 2** should be used to denote sub-sections and so on. These should be used in a logical, chronological order so that PDF viewers pick up the reading order correctly. If setting the **Title** on a front sheet, make sure you use line spacing to position where you want it to go rather than using the return key.

Formatting Headings

By formatting headings in a document, you are making sure that visually impaired people and people using software to help them read documents (assistive technology e.g. screen readers or text to speech readers) can navigate their way through your document. To create headings that screen-reader software will recognise, the text must be formatted using Microsoft's inbuilt 'Styles' menu, shown below:
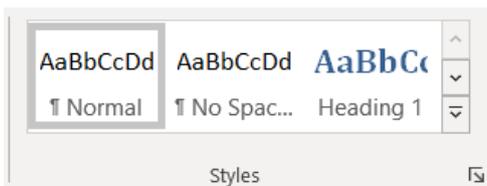
Using the styles menu will not only give us the visual effect we want but it also 'tags' the text as a heading which allows the assistive software to recognise it as such. It also enables you to create a table of contents if required. To [create a heading, highlight the text, and choose the Heading Style](#) you want from the Home tab in the Word Ribbon as shown below.
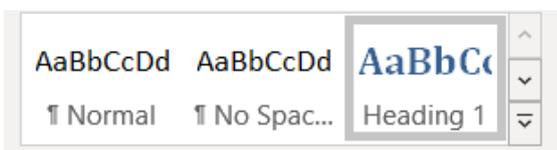
The default style settings will be too small for an accessible document, but you can easily change the font settings. Right-click any of the styles and select 'Modify' and then change to the settings you need.

Footers and Footnotes

Avoid putting important information in headers and footers (other than page numbers) as screen-readers may not be set to read them. If you do use footnotes, put them in font size 12 so that they are readable.

Styling text

- Keep sentences and paragraphs short. Aim for an average sentence length of 15–20 words. When you have finished writing, go through your document, and edit out any unnecessary words.
- Use the title and introductory paragraph to say what the information is about, whom it is for, and why you are publishing it.
- Avoid using abbreviations. Spell out words like "and" instead of using an ampersand (&) except when part of a company name e.g., "Holland & Barratt" or a standard abbreviation like A&E (which would not include an ampersand if written in full, i.e., Accident and Emergency).
- Do not use ALL CAPITAL LETTERS except for recognised initialisms or acronyms such as NHS or CCG.

When using an initialism or acronym for the first time, be sure to write it out in full, even if it is a commonly used term in your area of work. For example, the first time you would use "Clinical Commissioning Group" and after this you can just use CCG.

- <u>Underlining</u> can make text harder to read and can be mistaken for a hyperlink.
- *Italics* also reduce readability and should be avoided, the main exception being legal case citations that are traditionally italicised.
- **Bold** can be used for emphasis, but it should be used sparingly.
- If you need to separate words with a forward slash (/) always include a space either side of it as this makes it easier to read e.g., clear / large print rather than clear/large print.
- Write in direct language using everyday words.

If you are copying text from another document to put into yours, make sure that you clear all formatting so that no styles are carried over from the original document. To do this you can use 'Paste special' and choose 'Unformatted text' when pasting content into your document, or you can paste it in as normal, select all the text by pressing 'ctrl A' and then clicking the eraser 'Remove formatting' button on the home pane of Microsoft Word.

Fonts and Text size

Fonts broadly fall into two categories 'sans serif' and 'serif'. Serifs are semi-structural details or small decorative flourishes on the ends of some of the strokes that make up letters and symbols (Sans means without).

You should use a 'sans serif' font e.g. Arial, Verdana, Trebuchet, or Tahoma whenever possible as these are generally considered easier to read on screen and in print because the characters are simpler and easier to read. Where possible limit the use of different fonts in a single document.

Best practice advises using 14-point font as standard, but 12 is also acceptable.

Do not use a size less than 12 in any part of a document, including footnotes. Large print can be anything above 16 point. If you are asked to provide large print you should ask the individual for their preferred font and size, and ensure your document still works when re-sized e.g., contents page matches actual pages in the text.

Colour and Contrast

Text colour

Always set the font colour to 'automatic' instead of 'black'. Some people with impairments use high contrast settings such as yellow text on a black background. If your font is set to 'black', then it will appear as black regardless of a user's settings. If the text is set to be 'automatic', it will change according to each user's preferences. Only use black or dark coloured text when printing documents unless otherwise requested.

If creating a document with different coloured text such as a poster think about the colours you are using and consider whether they are going to be accessible, think about the contrast and consider options such as providing a plain text version or if you can convey the information in another format as well as the poster.

There is more information and guidance in the colour guidance and resources section on page 17.

Setting the layout

Instead of adding in multiple returns when creating a new page or moving text to a new page, page breaks or section breaks should be used wherever possible. Be careful however not to leave large spaces of empty page between text content as this can also make your document less accessible.

To use the page break function as shown in the screenshot on the next page (pg12), click after the text you want to remain on the current page, choosing '**Insert**' on the top pane, '**Pages**' and selecting '**Page break'**, any new content will now start on the following page.
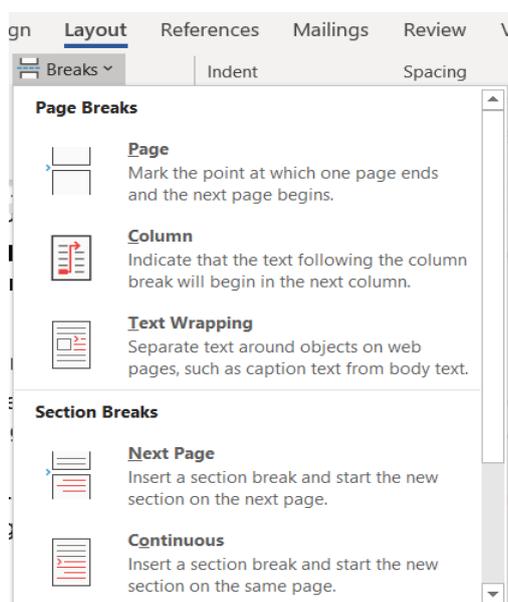
You can also choose '**Layout**' on the top pane, '**Breaks**' and then select '**Page Breaks**' or '**Section Breaks'.**

Alignment and Spacing

Always align text to the left, do not centre or justify otherwise some screen readers will have difficulty finding the beginning of lines. Vertical text is not compatible with screen-reader software.

Text can be difficult to read if the lines are too close together. Use a line space of at least 1.15 although 1.5 is preferable. The 'Line and Paragraph Spacing' button can be found on the 'Paragraph' panel of the 'Home' ribbon on Word. Spaces can also be added before or after paragraphs via the 'Page Layout' tab.

Whilst you are setting your line spacing remember to set your character spacing as well as well which should as a minimum be set to Before 0pt and After 6pt.

As shown in the screen shot below choose **Line and Paragraph Spacing** and pick 1.5 line spacing.
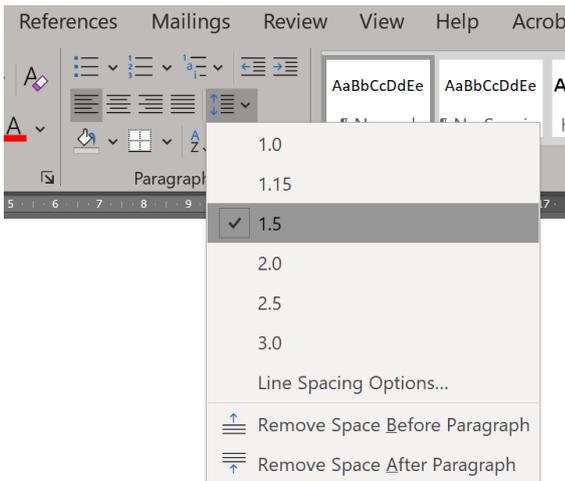
Then choose **Line Spacing Options** as shown in the screenshot below and amend your spacing to Before 0pt and After 6pt.
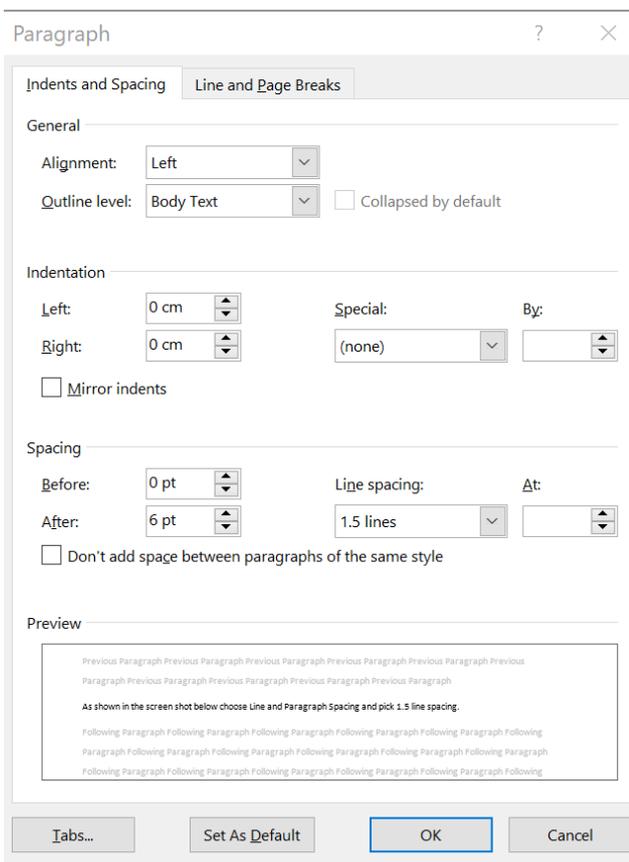
Never use the space bar to create a line break or indents. If you need to indent text, use the 'tab' key. This will ensure consistent indents throughout your document. You can also set your line spacing, font style and size using the **Paragraph Spacing** option in the **Design Tab** and choosing the '**Relaxed**' option as shown in the image below which would

meet the minimum standards or set them yourself in the **Custom Paragraph Spacing** option and make these your default settings for your document

You can also [change the spacing between text](#) to increase accessibility however be mindful that too much space between words in a sentence can make it harder to read.

Bullets Points and Numbered Lists

Bullet points and numbered lists are a great way to pass on information. They can be understood immediately and are often much simpler than a block of text. Review your work to see where these could be included.

Bullet points and numbered lists can be read by screen readers, but make sure you introduce them with a descriptive sentence rather than rely on visual layout to infer meaning. Make use of the [List paragraph option in the Heading Styles](#) menu this ensures that the list is formatted appropriately.

Blank Lines and Hidden Formatting

Even content that you cannot see maybe read out loud or ignored by screen-readers such as spacing or punctuation and this can make documents confusing for the user. Paragraph Spacing and Page Breaks should be used instead of returns to create gaps between sections of text.

Use the Show / Hide ¶ button, found on the 'Paragraph' tab of the 'Home' ribbon, to reveal the hidden formatting in your document and delete all unnecessary spaces, returns etc.

Creating a table of contents

This is advised for documents that are 6 pages or longer, however is often a good idea for shorter documents too so that they can be easier to understand. If heading styles have been applied properly, click 'References' in the control panel on Microsoft Word, then choose 'Table of Contents – Automatic Table 1'.

As shown in the screenshot on the next page the table of contents can also be updated by clicking 'Update Table' and then 'Update Entire Table' and then clicking OK. This will refresh any changes made to the headings and page numbers. When the file has been converted to a PDF, the contents table can be clicked taking users directly to the linked section.
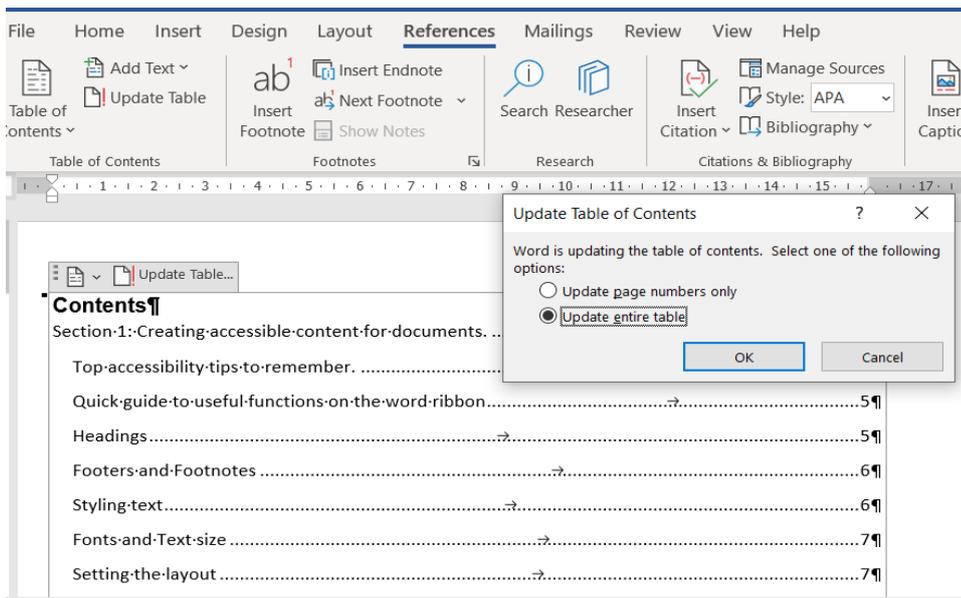
Page numbering

To go with the table of contents you need to enable page numbers so that users can easily navigate their way around a document. You can set page numbers to appear in the document footer in the middle or right side of the page, navigate to the 'Insert' tab, select 'Page Numbers' and choose 'Bottom of page' which is shown in the screenshot below.
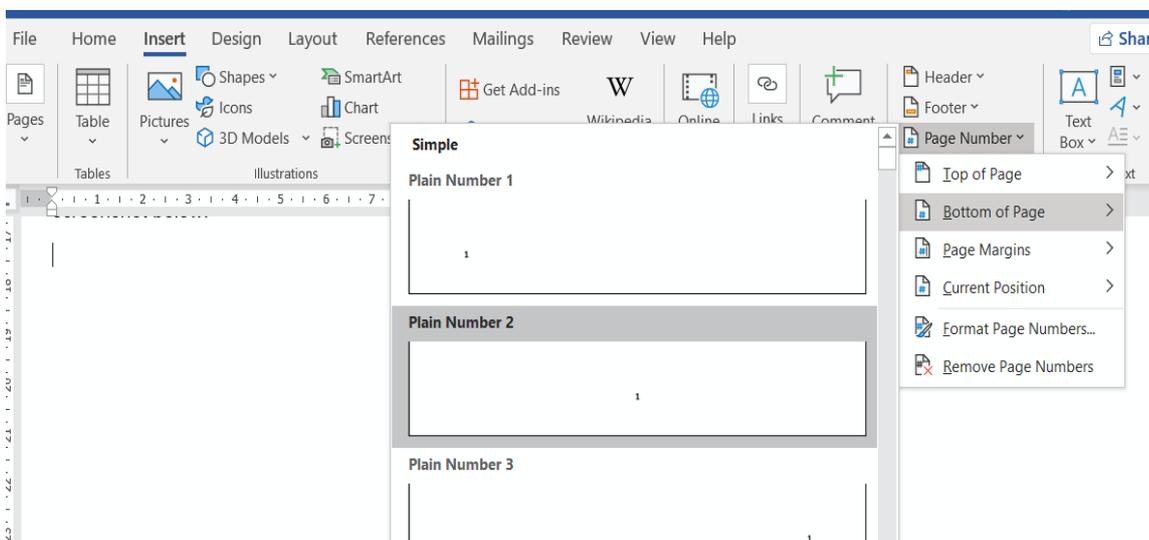
To make your page numbers more accessible you could use the **'X of Y'** option as shown in the screenshot below. Navigate to the **'Insert' tab**, select '**Page Numbers'** and choose **'Bottom of page'** and then choose '**Page X of Y'**. This would then for example read as Page 1 of 10 (or however many pages there are in your document and automatically update) This helps the reader not to lose track of their progress in a document. As illustrated in the screenshot on the next page.
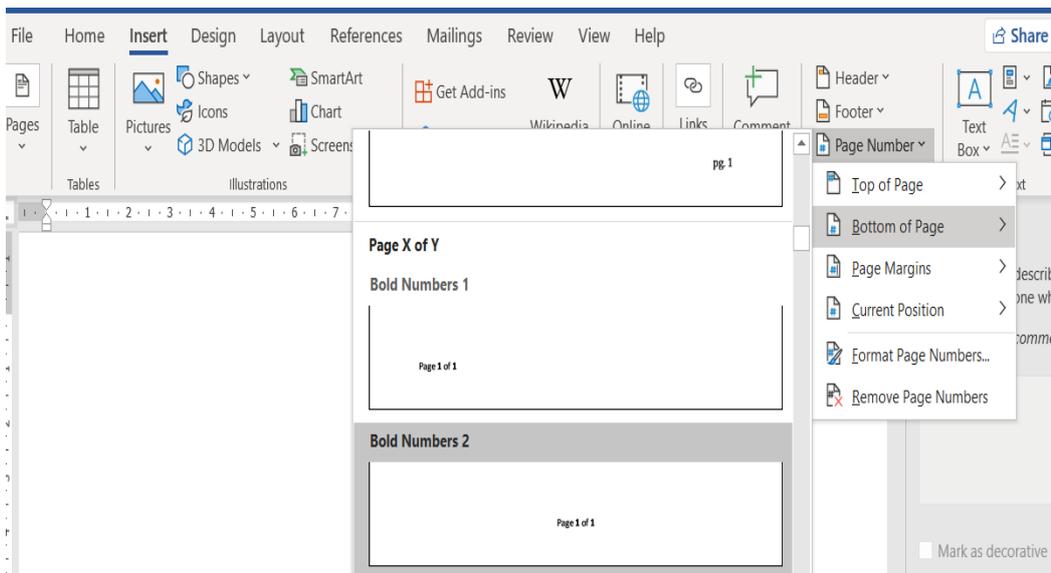
Images

Alt Text for Images

Do not use the automatically generated alt text descriptions provided by MS Word. They are not helpful or accurate.

Remember: to make sure alternative text is included for any images, scans, or other graphics**.** All images included in the PDF must have accurate alternative text (unless they are for decorative purposes) set for them so that anyone using screen readers can still fully understand the document. This applies to all images including charts, tables, scans, or graphics unless the image is purely decorative and the only purpose it serves is to improve the visual appearance of the document, then alt text is not required.

Alt text can be added by right clicking the image, clicking 'edit Alt text', and then enter appropriate alternative text in the field that appears in the Alt Text sidebar. If the image is decorative, leave the field blank and check Mark as decorative.

You do not need to type in 'Picture of' or 'Image of' before your descriptive text as the screen reader will automatically recognise that an image is present.

Make your alt text as short as possible whilst still conveying the meaning of your image. This may not always be possible where images of tables or charts are used, and the information cannot be conveyed in limited text. If the content is substantial add this as text to the document rather than including it in alt text.

Alt text must be meaningful not just a literal description of the image but also the context and purpose of the image. Think about why you have you used the image, what value is it bringing to the document and how does it support or enhance the meaning of the text.

Avoid inserting images of scanned documents containing text as the content will not be recognised by screen readers. If possible, you should fully replicate the content of the scan either in the document itself (replacing the need for the scan) or type it in the alternative text field.

[Webaim has further useful guidance and information on using Alt text](#) and [Penn State University's Accessibility resources](#) provides helpful guidance on alt text use.

How to use images

Images should only be used to illustrate your text and not convey new information without explanation.

- When resizing an image, always do so proportionally. Never change the width or height without changing the other. This leads to images being squashed or stretched.
- Also be sure that your image is not too small to be seen clearly or pixelated by being made too large.
- Ensure there is a reasonable clear gap between an image and text, or the layout will look crowded.

Using images in a document can help convey complex information. The use of appropriate images can also often help readers with dyslexia and learning difficulties to follow meaning.

However, images placed in a random way can interrupt the flow of the text and make it even harder to follow, so avoid fitting text around images. Instead consider placing images at the end of paragraphs and allow sufficient space between the text and the image.

To ensure the accessibility of non-text elements, [the "wrapping style" should be set as "In line with text".](#) You should also avoid placing text over any background image, placing images in text boxes, or placing an image on top of another image.

Using colours with high levels of contrast

If you are designing a graphic or diagram, you should use a colour scheme with high levels of contrast so that the visually impaired are still able to understand the content. This means avoiding using light coloured text on a white background and dark coloured text on a dark background. Using text boxes with coloured backgrounds is also bad practice in accessibility terms and should be avoided.

Examples of colour contrast:

This is very bad.

This is good.   This is bad

Remember: Nothing should be indicated by colour alone, anything that is indicated by colour needs to have a secondary way for it to be distinguished, for example: the RAG rating (Red Amber Green) is often used in action plans where the colours are used to signify a project's progress and whether it is meeting its goals.

This is okay for people who can see these colours but excludes those who can't so is not accessible. An easy example is if you were to use grayscale to view an action plan which used the RAG rating method or printed it out not using a colour printer, you would not be able to tell what each shade of grey signified because the information is provided through colour alone.

Text should be added along with the colour to convey the same information e.g., if green means completed then add completed rather than just adding the colour. And check that the text can be seen against the colour clearly if not use a paler shade of your chosen colour for your background colour. As shown in the example below.

Achieved / Complete
In progress
Not in progress

Colour guidance and resources

The UK Civil Service accessibility blog on 'Colour contrast why does it matter?' provides some more useful information on this topic. The RNIB has produced guidance on 'How to choose colour and contrast for printed materials that benefits people with sight problems'. Penn State University has guidance and practical examples of how to produce accessible content using contrast, luminosity and brightness and other aspects of colour in documents and on web pages.

Backgrounds

Any background that has text over it should be a single colour, without pattern or texture. Ideally, 'no colour' should be selected so that users' alternative settings can be used. Text on top of images can be difficult to read and should only be used when there is a consistent high contrast level between text and background.

Text wrapping and captions

Text wrapping: Avoid having text too close and overlapping images as this can make it hard to read for the visually impaired. Best practice recommends setting your text wrap to allow 6mm spacing by using the 'More layout' option in the text wrap drop down.

To ensure the accessibility of non-text elements, the "wrapping style" should be set as "In line with text".

1. Select the image/text box and right click inside the image. As shown in the image below an icon in a small box will appear at the right side of the image. This is the layout option.

2. Click on the icon and a menu will appear called Layout Options. From this menu select In line with Text as illustrated in the image on the next page.
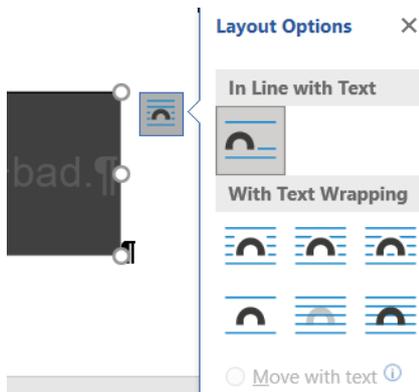
Captions: If you are using captions for images in your document, ensure that they are at least 12pt in size and that the caption aligns correctly with the image and is reasonably close to the image. Captions are more useful than alt text especially for tables.

Making tables accessible

Tables should **only** be used to set out tabular data, not used to set the layout or style a page e.g., for an agenda or form. This is because the formatting used means that assistive software like screen readers or text to speech readers may not be able to access the text.

Use the **Insert Table** command to create a table and **do not** insert a table as an image as this is not accessible. All tables should have appropriate column headings that accurately explain in simple terms the content of each column.

Keep the text direction in tables horizontal, vertical text is difficult to read and inaccessible to screen-readers.

Screen readers use header information to identify rows and columns. Ensure that tables **do not contain** split cells, merged cells, nested tables, or completely blank rows or columns. Screen readers keep track of their location in a table by counting table cells, so split cells, merged cells, and nested tables make the screen reader software lose its place. To add table headers:

1. Left click inside the table. and the **Table Design** tab should appear in the top pane above the Styles section.
2. Go to **Table Design** If the top row of the table contains headers for each column (most tables do), make sure the **Header Row** checkbox is checked.
3. If the first column of the table contains headers for each row, check the **First Column** checkbox

In the **Table Styles** section, select a style where the table headers are clearly identified visually. Make sure the style has good contrast.

If the table spans multiple pages, this header should be repeated by highlighting the row, right clicking it, going into '**Table properties'** then '**Row**' and checking the '**Repeat as header row at the top of each page**. To make sure that rows do not split across pages, enter the table properties and uncheck 'Allow row to break across pages.

Make sure you have remembered to included **Alt text** in your table properties to help people who cannot see the screen to understand what is important in images and other visuals. Give a brief description of the purpose of the table and content: e.g., Table showing the number of people attending the clinic from Monday to Friday by age group. You can do this by right clicking your table going into '**Table properties'** then '**Alt text'** then enter your text in the alt text description field.

Where possible use the caption function for tables and images it makes it easier for people to locate specific information for example in a meeting particularly if you have more than one table or image on a page.

1. To insert a caption right click a table and then click the insert caption option in the menu

2. Insert your title and click ok.

3. Check that the text is formatted accessibly e.g., size 12 font, black text and not italics.

Text Boxes and Flow charts

Text boxes: Information contained in text boxes is not accessible to some assistive software. So please **avoid using them** wherever possible. You can highlight text using colour rather than a text box but need to be mindful of colour contrast issues.

Flow charts: The simplest way to make flow chart more (accessible apart from ensuring text is size 12 font black and colour contrast has been considered and accessible options chosen) is to save it as a picture, remember to add alt text and include text above it detailing the process that it covers.

Click the chart that you want to **save** as a **picture**. Choose Copy from the ribbon or press CTRL+C on your keyboard. Switch to the application you want to copy the chart to. If

you're **saving** as a separate **image** file open your favourite graphics editor, such as Microsoft Paint.

Another option is to use the Snip & Sketch tool:

Take a screenshot.

- Press the **Start** button and enter **Snip & Sketch** in the search field.

- Press the **New** button to start snipping with the snipping bar.

The snipping bar allows you to capture the following types of snips:

- **Rectangular snip.** Drag the cursor around an object to form a rectangle.

- **Free-form snip**. Draw a free-form shape around an object.

- **Full-screen snip.** Capture the entire screen.

Once you snip an area of your screen — the snipped image is added to your clipboard and you can paste it immediately into another app. A screen prompt will also allow you to annotate, save or share it using the Snip & Sketch app.

Once you have pasted your flow chart into your document then add appropriate alt text as you would to any image, you will need to provide some text above or below the flow chart detailing the process outlined in the flow chart explaining each step.

Making Charts and graphs accessible

Not all charts and graphs are accessible to everyone, think carefully about your audience and whether the graph or chart being used is the most accessible option that you could be using.

Remember to:

1. Make sure you add alt text.
2. Provide a summary of the chart in the text of your document.
3. If the chart, graph, or table have been formatted in excel **keep this formatting**. **Do not** turn them into an image.
4. Reduce unnecessary complexity in your images where possible. Make sure your font style and size, colour etc are accessible.

5. Make sure to provide context in the text in your document and refer to the graph or chart.

Making sure hyperlinks are accessible

Whether linking to another document, website or file, the link should be able to stand-alone. This means avoiding phrases like 'click here' and 'visit this document' and using descriptive text instead. Some assistive software lists the links in a document so the link itself must be self-explanatory without using any additional text. Use meaningful text for hyperlinks; do not use the file address or path name.

Examples:

- **Bad practice** a): 'If you would like more information, click this link.'
- **Good practice** b): 'If you would like more information, go to the Wakefield CCG website or The Wakefield CCG website has more information.

If you need to share a full URL for example you are printing a document or its going onto a poster then you should reduce the URL size. Most people are unlikely to put a full URL address into a search engine if they are looking for something, and it is not very accessible or easy remember so **you would not use**: https://www.wakefieldccg.nhs.uk/home

Good Practice: c) Use instead: wakefieldccg.nhs.uk or (**wakefield.nhs.uk**)For a document that may be printed and accessed online you could use both examples b) and c).

Checking your document for accessibility

Readability and Word Accessibility Checker

Make use of the readability statistics tool. This is a function in Microsoft Word which gives your document a score based on the average number of syllables per word and words per sentence. When Word finishes checking the spelling and grammar and errors corrected, you can choose to display information about the reading level of the document, including readability scores according to the Flesch-Kincaid Grade Level test and Flesch Reading Ease test.

The Flesch Reading Ease score rates text on a 100-point scale; the higher the score, the easier it is to understand the document. For most standard documents, you should aim for a score of 60 to 70. The Flesch-Kincaid Grade Level score rates text on a United States grade school level. For most standard documents, aim for a score of 7 to 8.

1. Go to **File** > **Options**.

2. Select **Proofing**.

3. Under **When correcting spelling and grammar in Word**, make sure the **Check grammar with spelling** check box is selected.

4. Select **Show readability statistics**.

After you enable this feature, open a file that you want to check, and check the spelling by pressing F7 or going to **Review** > **Spelling & Grammar**. When Word finishes checking the spelling and grammar, it displays information about the reading level of the document

Important: You must correct or Ignore all errors found in the document before the readability statistics will display.

Word Accessibility Checker

You will need to check the accessibility of your document in 'Word' by using its built-in accessibility checker. This will highlight any accessibility-related problems with your document, describe why you should fix them, and give you guidance on how to do so.

1. On the ribbon, select the **Review tab**. Then select **Check Accessibility**.
2. Review your results which appear at the right side of the screen. You will see a list of errors, warnings, and tips with how-to-fix recommendations for each. See Rules for the Accessibility Checker for more information.

You can also select File > Info > Check for Issues > Check Accessibility

To be notified of accessibility issues in your document as you continue working on it, tick the **Keep accessibility checker running while I work check box.**

To easily address accessibility errors and warnings, select an issue to open the Recommended Actions list. You can apply a one-click fix by selecting an action or select the arrow button next to an action for more options.

The checker's **Inspection Results** classifies accessibility issues into four categories:

- **Errors:** content that makes a document very difficult or impossible for people with disabilities to access. Example: an image with no alt text.
- **Warnings:** content that in most—but not all—cases make the document difficult for people with disabilities to access. Example: a link with text that is not descriptive of its function.
- **Tips:** content that people with disabilities can access, but that might be better organized or presented. Example: skipping from a first-level heading to a third-level heading.
- **Intelligent Services.** Content that is automatically made accessible by the Accessibility Checker programme, which you should review for accuracy and context. This usually when it suggests Alt text **DO NOT USE** its suggested Alt text or it may suggest spelling, grammar, or punctuation.

Clicking an item in the results highlights the corresponding item in the document and displays the **Additional Information** section:

- **Why Fix** explains why the issue impacts accessibility.
- **How to Fix:** suggestions for repairing the issue

Webaim have developed some [information that will support you to address the issues raised](#).

What the Checker cannot check for

Although the Accessibility Checker catches most types of accessibility issues, there are some issues it is not able to detect. For example:

- it does not tell you if you have used italics, capital letters or ampersands, or underlining acronyms when you should not do so,
- nor will it tell you if the colours used in diagrams or documents are not appropriate although it can now tell you if your text colour contrast is hard to read.
- It will not determine if you are using a table layout as a design feature for a text document like an agenda or report rather than for data. Or if you have not got the correct line spacing, character spacing or spaces between paragraphs.
- It no longer checks for extra characters and spaces.

- It no longer checks for alt text on tables.

That is why it is **important to always review** your work yourself to find the issues hiding from the Accessibility Checker.

If you use a screen reader and need to use the Accessibility Checker, Microsoft has [useful guidance on how to use the accessibility checker.](#)
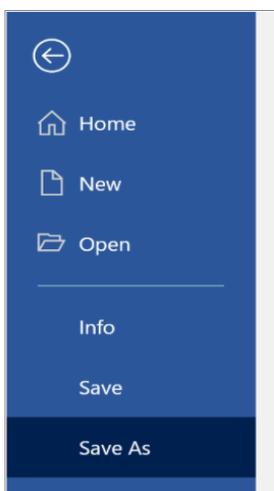
Publishing a document

When publishing a document onto the CCG website you will need to think about what needs to be published and what could be put as webpage text content. Please discuss your options with your communications team colleagues.

Creating your PDF

Saving your document as a PDF in MS Office allows you to create tagged PDF files without installing Adobe Acrobat. Tags define the intended reading order of the content on each page for screen reader software. The software relies on these tags to present text in a way that makes sense when someone is hearing the text read out loud. The tags allow a screen reader to interpret page elements such as headings, sidebars, tables, and multi-column text. The tagging process is not as clean as with the Adobe add-in, so it is recommend using [Adobe Acrobat or Acrobat Pro](#) if you have it.

[To save a document as a PDF in Word 365](#)

1. As shown in the image below **Click File** > **Save As** and choose where you want the file to be saved.

2. In the **Save As** dialog box, choose PDF in the Save as type list. As shown in the image below. Then click **More Options.**

Producing accessible content and documents using 365 V4

PDF (*.pdf)   ▼   Save

More options...
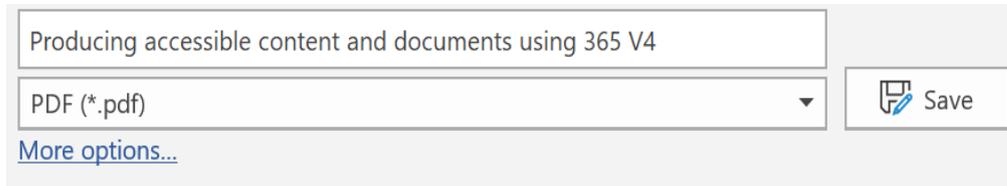
3. Choose **minimum size for publishing**, then click **Options** as shown below.

File name: Producing accessible content and documents using 365 V4   ⌄
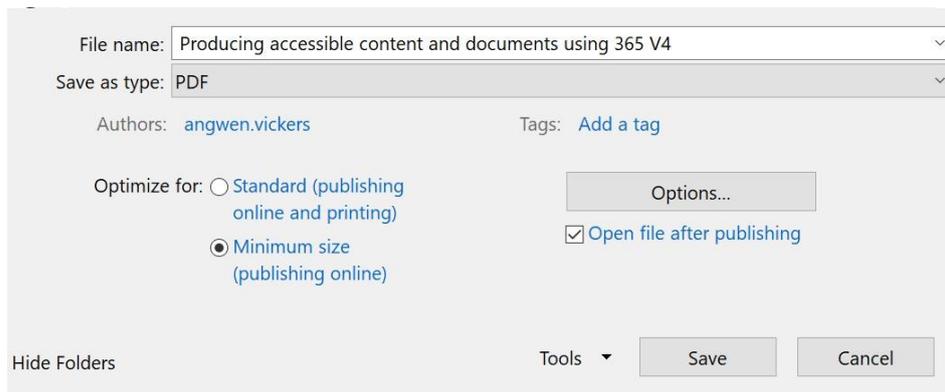
Save as type: PDF   ⌄

Authors: angwen.vickers   Tags: Add a tag

Optimize for: ○ Standard (publishing   Options...
online and printing)
● Minimum size   ☑ Open file after publishing
(publishing online)

Hide Folders   Tools ▼   Save   Cancel

4. Make sure the **Document structure tags for accessibility check box** is selected as in image below and then click OK. As shown in the image on the following page:

Options   ?   ✕

Page range
● All
○ Current page
○ Selection
○ Page(s) From: 1 To: 1

Publish what
○ Document
● Document showing markup

Include non-printing information
☑ Create bookmarks using:
  ● Headings
  ○ Word bookmarks
☑ Document properties
☑ Document structure tags for accessibility

PDF options
☐ PDF/A compliant
☑ Optimize for image quality
☑ Bitmap text when fonts may not be embedded
☐ Encrypt the document with a password

OK   Cancel

Section 2: Accessibility and PowerPoint

This section includes best practice from Microsoft, Webaim, Michigan State University and Penn State Accessibility and Usability resources.

Slide Layouts and Reading Order

The most important part of PowerPoint accessibility is the use of slide "layouts." Used correctly, these will ensure information on the slides have the correct heading structure and reading order. Most slide layouts include a slide "title," usually at the top of the slide. They also contain one or more "placeholder" areas where you add content like lists, images, and tables to each slide. The title will be presented as a heading to screen reader users and will be the first thing read on each slide. If each slide has a descriptive title, this will make it much easier for screen reader users to read and navigate the presentation.

Webaim has further information on how to change [slide layouts and how to create slide master](#) which allows you to create accessible layouts that meet the needs of the presentation while maintaining a proper heading structure and reading order.

Slide Reading Order

There may be times when you need to add content to a slide when it would be impractical to create a new slide layout. By default, a screen reader will read the slide title first, followed by other content in elements defined in the slide layout. Then it will read any additional content on the side in the order it was added to the slide. If you add content with this principle in mind, it should be presented to screen reader users in a logical order.

You can check or change this reading order by selecting **Home > Arrange > Selection Pane**. The Selection Pane will appear in the right-hand sidebar. See screen shot below:
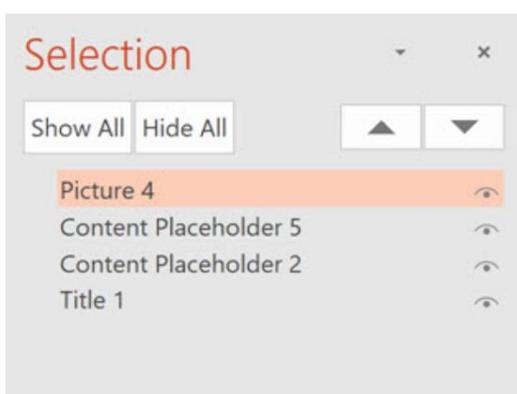
The pane will show every object on the slide. Highlighting an object in the pane will also highlight it in the slide. The reading order for the elements in this page is bottom to top. The first object on the slide will be read first. If another object is added to the page on top of the first object, it will be read next by a screen reader (and will also cover the first object visually). To reorder an item, simply **click and drag**. PowerPoint for Windows also has **up / down arrow buttons** that can be used to reorder items.

Alternative Text for Images

PowerPoint presentations usually include images which will need alternative text (Alt text) adding to them. To add alternative text to an image in PowerPoint:

1. **Right-click** on the image and select **Edit Alt text**, then enter appropriate alternative text in the field that appears in the **Alt Text** sidebar.
2. If the image is decorative, leave the field blank and check **Mark as decorative**

Do not select the "Generate a description for me" button. The quality of the automatically generated descriptions is usually very poor, and a description of an image is often not the same as alternative text.

Tables

Most screen readers will not identify table headers in PowerPoint however to make them more accessible. You will need to mark the first row of a table as a table header by using the table formatting options in the ribbon and checking Header Row for each table.

Designating a Header Row can trigger a change in the table appearance. It is important that the formatting of each cell contains sufficient colour contrast. **Note** that additional options for banded rows/columns are compatible with screen readers and can be useful for sighted users. However, contrast should be checked if the cells are coloured.

Hyperlinks

PowerPoint automatically creates a hyperlink when a user pastes a full URL onto a slide and presses Enter or Space. Raw URLs may not make sense to screen reader users or others, so make the link text descriptive as you would for a Word document. The Making sure hyperlinks accessible section of this guidance on Page 22 has more helpful information on this topic.

Remember if you are creating a presentation that is intended to be displayed both electronically and in print, you may want to include the URL and a description in the link text. For example, the nhs.uk 'Live well' web page has advice, tips and tools to help you make the best choices about your health and wellbeing. (nhs.uk/live-well)

Checking Accessibility

PowerPoint includes a tool that will identify many common accessibility issues. To run the accessibility checker in Windows as shown below, select File > Info. Select the **Check for Issues** button and choose **Check Accessibility.**
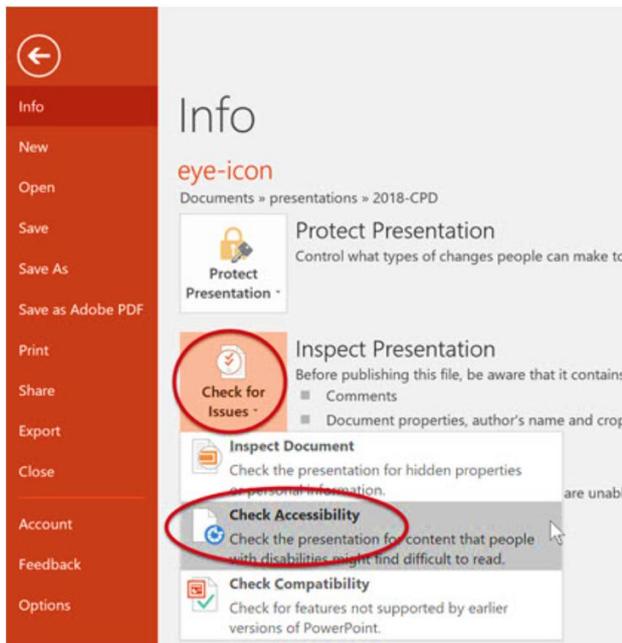
You can also start the accessibility checker by selecting the **Review** tab in the PowerPoint ribbon, then choosing **Check Accessibility**. The Accessibility Checker sidebar will appear to the right.

The checker as shown on the following page (pg. 31) presents accessibility errors (e.g., images with no alternative text), warnings (e.g., unclear link text) and tips (e.g., check slide reading order for slides with custom content). Selecting an item in the report will highlight the issue within the slide. Information about the issue, and instructions on how to repair it, will also appear at the bottom of the sidebar. When the issue is addressed, it will disappear from the report automatically**.**
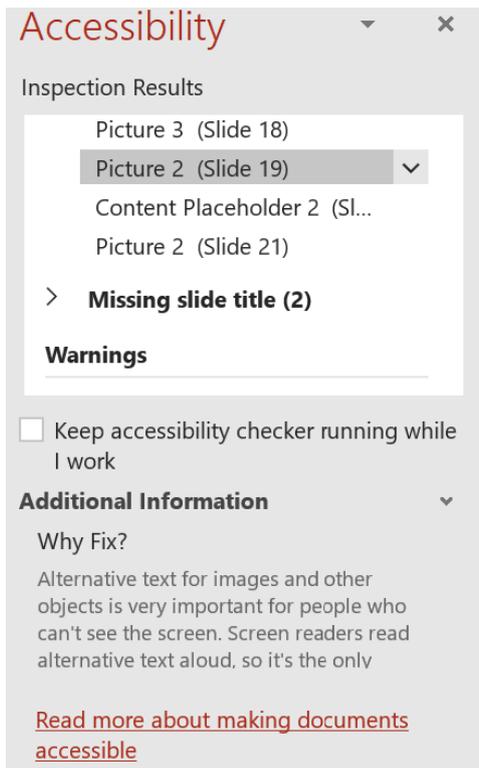
Other Accessibility Principles

- Make sure text is not too small, especially if the presentation will be viewed remotely e.g., on Microsoft teams or Zoom. Use reader view when presenting online.
- Do not use colour as the only way to convey information.
- Transitions and animations should not be used and do not use moving images behind text.
- Use clear and simple language. If you have embedded video, ensure the video is captioned and if you have embedded audio, include a transcript.
- If you are presenting do not assume everyone can see the text or images, read the relevant text out.

Microsoft also provide guidance on how to 'Make your PowerPoint presentations accessible to people with disabilities'

Converting PowerPoint to PDF

PowerPoint is effective for face-to-face presentations, but it is not always the best format for content on the web. The file can be large, and users must either have Microsoft Office or a plugin to view the file. For some users PDF maybe a better format to present

PowerPoint presentations online however this is only if the appropriate accessibility aspects have been addressed. It may be more accessible to put the content from the PowerPoint presentation into an accessibly formatted word document and then save as a PDF.

Section 3: Accessibility and Excel: Top tips and Publishing

This section shares best practice from the RNIB, Penn State Accessibility and Usability, Michigan University, Webaim and Microsoft.

Accessibility top tips for excel

- Break down complex data sets into logical tables ideally with their own worksheets. New tables should be created on separate worksheets to aid navigation and understanding.
- Reserve the first worksheet for a contents or index page.
- Use [Clear Print guidelines](#) for text and data.
- Include a title before any set of data in a spreadsheet. This title can be in the row above the first row, preferably in cell A1.
- Put some text into cell A1. Preferably this should be the title of the data set, but if that is not possible, it should information about the structure and location of data, even if the colour is set to white.
- Insert all text and data within a logical path that a keyboard only user would take. Usually keyboard users will navigate down from cell A1 until the table is reached.
- Empty cells within a table should be marked as such with a minus sign, a zero or N/A for not applicable as appropriate.
- Adjust cell height and width to ensure all text that you want to appear is visible in your spreadsheet.
- Add text descriptions and Alt text to charts and graphics.
- Avoid using visual devices such as colour, shading, patterns, and borders to divide up data regions.
- Avoid merging data or header cells. Merged cells cause navigation problems and will not be read correctly if they contain row or column headers.
- Avoid using blank cells for formatting purposes. It is generally better to use other formatting tools such as adjusting column width or height.

- Always save your spreadsheet with the focus on cell A1 unless you want to draw attention to a specific cell.
- Make sure all data rows and columns are labelled as in a data table. Use white text to include headers that might be distracting to sighted users
- A table can also be marked as a named region to enable column and row headers to be read out optimally in screen readers.
- Add an "End of Table" message in the row after the last row of a data table row. The text can be in white.

Named Regions and Header Names

Using the Names feature, it is possible to name a range of cells in such a way that header cells are spoken along with the value of the cell. This allows a person using a screen reader to understand the structure of a table more clearly.

1. Input data into a range of cells such that each column and row has a label and there are no merged cells.

2. Move your cursor to the top left cell of the range (e.g. cell A2). This should be a column header.
   Note: You don't need to highlight the entire range.

3. In the **Formulas** tab, select **Define Name** (tag icon).

4. For the **Name** field input a name with the following template:
   Title<RegionName>..<rightcell>. For instance, for the table above, the name would be **TitleSP16Grades..F5**.

   Note: Names not following this template do not facilitate screen reader access.

5. Click **OK** to set the name. The region Name has been set for a screen reader.
   Note: The Name is displayed in the formula bar when the cursor is in the top most shell other than that there is no visible change on the spreadsheet.

Chart Wizard

If you are using the **Chart Wizard**:

1. Add Alt Text for any inserted chart, object or image used in Excel.

2. Use the formatting options in line charts to create different types of dotted lines to facilitate legibility for colour blind users.

3. Avoid using the yellow and bright teal lines; use formatting options to change it to a darker colour.

4. Ensure that charts are legible are grayscale (black and white).

5. Add a text key for bar charts or change the default colours to a colour safe palette.

Essential steps for publishing

It is essential to embed certain formatting and structure within an Excel spreadsheet so that assistive technology can follow the structure clearly and provide the information in a logical order to the disabled user. Proper structure also ensures that if the Excel file is converted to a PDF, it will continue to be accessible. The basic steps are provided below for Excel 2010 and above for PCs.

1. **Images and Visuals**: Alt text, or a short description, helps people who cannot see the screen to understand what is important in images and other visuals. Provide alt text for each image, PivotChart, shape, SmartArt graphic, and table.

2. **Hyperlinks**: Use link text that has meaning, such as "instructions for making an accessible Excel spreadsheet," instead of "click here" or "learn more." People who use screen readers sometimes scan a list of links, so links should convey clear and accurate information about the destination.

3. **Tables**: Use a simple table structure and add column header information. Screen readers use header information to identify rows and columns. Ensure that tables do not contain split cells, merged cells, nested tables, or completely blank rows or columns. Screen readers keep track of their location in a table by counting table cells, so split cells, merged cells, and nested tables make the screen reader software lose its place.

4. **Tabs**: Give all sheet tabs unique names and remove blank sheets.

5. **Sections:** Cell sections are essentially shortcuts that a screen reader user can use. Providing the sections with an appropriate title allows screen reader users to quickly identify the purpose of the section. Select a range of cells, click "Formulas", and then select "Define Name." Enter an appropriate title for the section and define the scope. The name field does not allow spaces.

6. **Check**: Test your Excel spreadsheet for accessibility. Go to File, Info, Check for Issues, and Check Accessibility. You can also do this by going to the Review tab on the Excel ribbon and choosing Check Accessibility.
7. **Convert:** Convert your accessible Excel spreadsheet into an accessible PDF: Go to File and Save as PDF

For further information the RNIB has a guide to creating accessible spreadsheets , there is the Michigan University Tutorial , Glasgow university guide to making excel accessible , NHS Scotland Guide to making excel accessible (excel 2013)

Useful practical guides to show how to make excel more accessible:

- Microsoft Make your Excel documents accessible to people with disabilities

- Penn State Accessibility and Usability Excel Tips

- Microsoft Excel 2019: New! Excel 2019 Check Accessibility One Click

- Creating an accessible excel spreadsheet part 1

- Creating an accessible excel spreadsheet part 2

- Creating accessible excel forms part 2

- Creating accessible excel forms part one

- Microsoft Create more accessible Excel workbooks

Further accessibility information and resources

- Worcester University Guide_to_making_a_document_accessible.pdf

- RNIB guide to accessible excel spreadsheets

- Excel accessibility resources

- Webaim resources to support accessibility

- UK government basic accessibility check

- Penn State Accessibility and Usability: Microsoft Office

- Abilitynet Creating Accessible Documents

- Kent University Accessible Documents Guide

Section 4: Creating Accessible Webpage content

According to the Government Digital Service in their 'Content design: planning, writing and managing content guide' it's important to remember if you are creating content for a webpage that:

- People read differently on the web than they do on paper. This means that the best approach when writing for the web is different from writing for print.
- The accessibility principles are the same for a webpage as a word document.
- Do not publish everything you can online. Publish only what someone needs to know, or you are legally obliged to publish.
- Good online content is easy to read and understand. It uses short sentences, sub-headed sections, simple vocabulary.

Accessibility, usability, and inclusion are closely related aspects in creating a web site or Web page that works for everyone.

Accessibility: addresses discriminatory aspects related to equivalent user experience for people with disabilities. Web accessibility means according to the Web Accessibility Initiative that people with disabilities can equally perceive, understand, navigate, and interact with websites and tools. It also means that they can contribute equally without barriers.

Usability: is about designing products to be effective, efficient, and satisfying. Usability includes **user experience design.** This may include general aspects that impact everyone and do not disproportionally impact people with disabilities. Usability practice and research often does not sufficiently address the needs of people with disabilities.

Inclusion: is about diversity and ensuring involvement of everyone to the greatest extent possible. In some regions this is also referred to as **universal design** and **design for all**. It addresses a broad range of issues including: accessibility for people with disabilities, access to and quality of hardware, software, and Internet connectivity, computer literacy and skills, economic situation, education, geographic location, culture, age, including older and younger people, and language.

When using a website, accessibility depends on how a person's disability affects the way they perceive information on a page and how they navigate within and between pages. Elements that affect accessibility include:

- For people who cannot see very well: the colours and the contrast between colours; the size of text; the choice of fonts. For people who are blind: how a screen reader interprets the elements on a page (for example, alt tags for images, and title tags for links); the inclusion of audio description for video content

- For people who cannot hear very well: how any audio content is represented graphically (for example, including subtitles or signing on video content)

- For people who find a keyboard or mouse hard to use: the ease with which someone can navigate to parts of the page (for instance, by tabbing); auto-completion of forms.

- For people who find words difficult: the length of sentences and paragraphs; the complexity of the vocabulary; the choice of fonts and size of text; the availability of spelling checkers and word prediction; the opportunity to have text read out loud.

Improving Web accessibility also benefits people without disabilities, for example: people using mobile phones, smart watches, smart TVs, and other devices with small screens, different input modes, etc, older people with changing abilities due to ageing, people with "temporary disabilities" such as a broken arm or lost glasses, people with "situational limitations" such as in bright sunlight or in an environment where they cannot listen to audio, and people using a slow Internet connection, or who have limited or expensive bandwidth.

The Government Digital Service has some useful tips on the Dos and don'ts on designing for accessibility which is shared in this section.

Designing for users on the autistic spectrum

Do: use simple colours, write in plain English, use simple sentences and bullets, make buttons descriptive - for example, Attach files, build simple and consistent layouts

Don't: use bright contrasting colours, use figures of speech and idioms, create a wall of text, make buttons vague and unpredictable - for example, Click here, build complex and cluttered layouts

Designing for users of screen readers

Do: describe images and provide transcripts for video, follow a linear, logical layout, structure content using HTML5, build for keyboard use only, write descriptive links and heading - for example, Contact us

Don't: only show information in an image or video, spread content all over a page, rely on text size and placement for structure, force mouse or screen use, write uninformative links and heading - for example, Click here

Designing for users with low vision

- **Do:** use good contrasts and a readable font size, publish all information on web pages (HTML), use a combination of colour, shapes and text, follow a linear, logical layout -and ensure text flows and is visible when text is magnified to 200%, put buttons and notifications in context
- **Don't:** use low colour contrasts and small font size, bury information in downloads, only use colour to convey meaning, spread content all over a page -and force user to scroll horizontally when text is magnified to 200%, separate actions from their context

Designing for users with physical or motor disabilities

- **Do:** make large clickable actions, give form fields space, design for keyboard or speech only use, design with mobile and touch screen in mind, provide shortcuts
- **Don't:** demand precision, bunch interactions together, make dynamic content that requires a lot of mouse movement, have short time out windows, tire users with lots of typing and scrolling

Designing for users who are D/deaf or hard of hearing

- **Do:** write in plain English, use subtitles or provide transcripts for video, use a linear, logical layout, break up content with sub-headings, images and videos, let users ask for their preferred communication support when booking appointments

- **Don't:** use complicated words or figures of speech, put content in audio or video only, make complex layouts and menus, make users read long blocks of content, don't make telephone the only means of contact for users

Designing for users with dyslexia

- **Do:** use images and diagrams to support text, align text to the left and keep a consistent layout, consider producing materials in other formats (for example, audio and video), keep content short, clear and simple, let users change the contrast between background and text
- **Don't:** use large blocks of heavy text, underline words, use italics or write capitals, force users to remember things from previous pages - give reminders and prompts, rely on accurate spelling - use autocorrect or provide suggestions, put too much information in one place

Audio, and video

Audio and Video are used on webpages to share information regularly by many organisations, but we need to make sure that they are accessible to everyone.

The Web Accessibility Initiative provides helpful information some of which has been included in this section on how to make sure that your audio and video content is accessible and what to think about when developing it.

User Experiences and Benefits to Organizations: Understand the needs of people with disabilities. Learn about benefits to organizations, and benefits to everyone in a variety of situations.

Planning Audio and Video Media: Plan for accessibility from the very start of your project, to save time and money. For example, integrated description is easier and better for accessibility, and it needs to be included in the script before filming.

Audio Content and Video Content: Make new audio and video content accessible. Avoid accessibility barriers when planning, scripting, storyboarding, and recording your media.

Audio Description of Visual Information: Provide description so that people who are blind and others who cannot see the video adequately get the visual information needed to understand the content. This includes things like charts, graphs, and text such as speaker names, titles, and e-mail addresses

Captions / Subtitles:For audio and videos you need to make sure that you provide captions (also called "subtitles") so that people who are Deaf and hard-of-hearing get a text version of the speech and non-speech audio information needed to understand the content.

Transcripts Provide a transcript, that is, a text version of the speech and non-speech audio information. Ideally, make it a descriptive transcript that also includes text description of the visual information. Descriptive transcripts are required to provide video content to people who are Deaf or blind. (descriptive transcript excerpt example)

Sign Languages: Provide sign language when your audience needs it, so that Deaf people whose language is sign get the content in their language.

Media Players: Use a media player that supports accessibility.

Section 5: Designing Accessible Surveys

The platform and templates used should be designed to comply with accessibility regulations. You must also ensure that the structure and content of your survey is accessible, inclusive, and effective. A well-designed survey will be easier for all respondents to complete, whether they have a disability or not.

Online surveys should inform users of potential accessibility issues, who they need to contact for assistance and how they can access a survey that meets their needs.

Imperial College and Smartsurvey both have useful guidance on creating accessible surveys some of their content is included in this section.

Survey structure

Use an introduction section to give your survey a clear structure and to provide helpful information at the start of the survey.

Provide an indication of how long the survey will take to complete at the beginning of your survey and use a progress bar at the bottom of the survey. Make sure that questions and answer options are clear and unambiguous. Numbering your questions will help users now that they are following the right sequence.

Language and text

- Use short sentences – this helps everyone to understand the questions efficiently, even if they are using a screen reader.
- Keep questions simple and to the point - make your questions easy to understand by using simple everyday language that people will understand. (However, if you are collecting data from an expert, it is OK to use jargon that they will understand, if you explain the jargon in the first instance.)
- You may be tempted to format text in *italic* or bold for emphasis – this should be avoided; it is recommended that you use bold for individual words and not for whole sentences as it makes text harder to read.
- Avoid using BLOCK CAPITALS - the use of All Caps can reduce the readability of your text because all words have a uniform rectangular shape, meaning readers cannot identify words by their shape and this reduces reading speed.
- Avoid changing the font, font colour and font size of your question text. If you must do this it should be used sparingly, as deviating from the templates default may cause problems for users with visual impairments. A recommended minimum font size is 14 or 16 pt. The font style recommended is Arial and should be black on a white or cream background.
- Do not use icons or images without Alt text.
- Do not use images or colours to convey information alone, ensure there is text to explain the use of the images.
- If you need to present a large amount of text in a question, break it up into a bulleted list.
- Your survey platform / software used must be compatible with screen reader software.
- If you need to present a large amount of text in a question, break it up into a bulleted list.
- If you use [headings within the survey text, ensure they are accessible](#).
- If you are [using links within the survey text, ensure they are accessible](#).
- It should be possible to complete the survey without the use of a mouse. Respondents should be able to tab between questions and submit surveys using only keyboard input.

Layout and Design:

It is also important to consider how accessible the layout and design of your survey is on different equipment and in different formats, what works on paper may not work online, what works on a laptop or PC may not work on a mobile phone or tablet or may not be compatible with assistive technology such as screen readers or magnifiers.

- Consider how many questions on a page, too many and it will become inaccessible for some and reduce the number of people willing to complete them. You would need to consider reducing the number of questions or splitting them between pages.
- Consider how long it takes to complete the survey and whether this may reduce accessibility.

Question layout: It is important to consider the way a question is laid out to ensure that all users can respond to the question easily. Some questions layouts are not accessible and should be avoided. Imperial College Below are some common layouts that are used and some advice on when and when not to use them.

Multiple choice questions: You can choose to present multiple-choice answer options horizontally or vertically. For a simple 'yes/no' question, a horizontal format might work well. However, if you offer several possible answer options, it is often easier for respondents with a visual impairment to read the different options if they are arranged vertically.

Example below of a vertical multiple-choice question which is recommended**:**
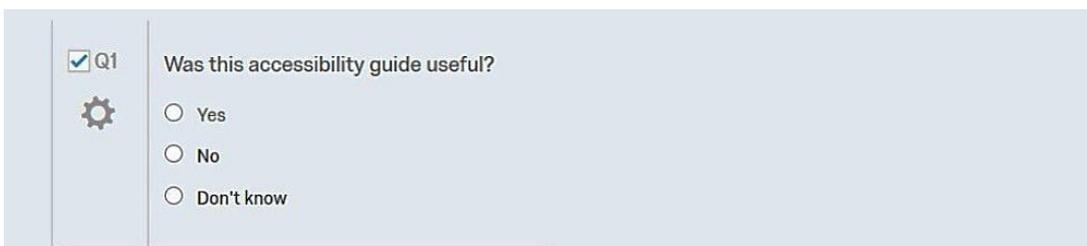
Scales: If you are using a numeric scale which is only defined in the question text, then a user with a short-term memory impairment may not be able to remember what the options relate to. They will have to keep referring to the scale for each question.

It is better to avoid using a separate scale. Instead use explicit wording for each answer. For example: Very good, good, Neither good or bad, bad, very bad. The user would then be reminded of the possible responses separately for each question as shown below

Please rate the quality of your dinner

○ Very Good
○ Good
○ Neither good or bad
○ Bad
○ Very bad

Question grids: Grid questions or scale/rank questions are often used to group similar questions together with the intention of avoiding repetition and allowing respondents to progress through the survey quickly. For example**:**

Please rate the quality of the food

	Breakfast	Snack break	lunch	Dinner	Evening snack
Very Good	○	○	○	○	○
Good	○	○	○	○	○
Neither good or bad	○	○	○	○	○
Bad	○	○	○	○	○
Very bad	○	○	○	○	○

Grids can result in long, complicated layouts and may not be optimised for mobile devices. This means they pose significant barriers for all users. To make your survey as accessible as possible, it is recommended that you should limit or avoid the use of grid and scale/rank questions. If you do have to use this type of question, ensure the vertical and horizontal questions/answers are kept to a minimum**.**

Dropdown Menus: If a question requires participants to select from a number of options, use check boxes or the circular radio buttons used in multiple choice questions rather than drop down lists as they present the options in a more convenient and accessible manner.

Sliding Scale: Some forms of sliding scale questions may not be accessible for all users.

Images, audio, and video: When using images, audio, and video in surveys, you should provide a text equivalent for this content. When inserting an image, you will need to enter alternative text in the dialogue box. For other media (audio or video) you should include a separate transcript or caption in the associated note or question text.

Smartsurvey and Accessible Questions

Smartsurvey provides a [guide on choosing accessible questions](#) which should be followed when using this software.

- ✓ **Inaccessible question types to avoid: Do not use**: Matrix of choices with Checkboxes, Ranking, Continuous sum, Slider or Semantic Differential.
- ✓ **Enable question numbers:** Keep question numbers on to enable respondents to keep track of questions.
- ✓ **Keep label text short:** When appropriate, make the first word or words meaningful to the user. Providing short labels should be balanced with tone of voice. An example of this is shown below in Figure1:

  Figure 1: Accessible style of user details question

- ✓ **Predefined options:** Where possible use multiple choice to reduce amount of text entry needed.

- ✓ **Use plain language** and explain any specialist terms.

- ✓ **N/A is often used as an option**: Not everyone knows what N/A stands for. Is it no answer or not applicable? For maximum accessibility, use the full word instead of the acronym or provide an explanation at the beginning of the survey.
  Not applicable and no answer mean different things to different people. You may have to change the wording depending on the question and its context. Would 'prefer not to say' or 'does not apply to me' be more useful?

- ✓ **Use single or multiple-choice questions**: Text boxes and dropdown menus require more effort from the user so avoid these. For Multiple choice (Only one answer and multiple answers) use a vertical layout where appropriate. Vertical layouts are easy to scan read especially for screen magnifier users.

✓ **Accessible Likert scales:** Don't hide instructions or key explanations in blocks of text. Chunk text and use bullet lists for easier scanning.

Example:

Do: Select how much you agree with the following statements using this scale:
1 = do not agree at all
10 = completely agree.

Don't: Your feedback is important to us and will be used to improve our service to you and all our customers. On a scale of 1 to 10 (where 1 is do not agree and 10 is completely agree) how much do you agree with the following statements?

✓ **Matrix of Choices:** Use single multiple-choice questions instead of the matrix of choices. This question format is partially accessible but there are issues for screen reader users who use NVDA screen reader with Chrome browser.

Avoid using matrixes of checkboxes as these are not available for NVDA screen reader users who use Chrome browser. If using this question type, chunk statements into sections so users aren't overwhelmed. For example, use no more than 4 statements per matrix.