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PREFACE

PREREQUISITES

This course has been written with the assumption that you already possess confident IT skills, and have attended our Word Basics course or have an equivalent level of word processing skills.

HOW THIS MANUAL WORKS

The manual is divided into 'explained' and 'how to'. 'Explained' sections provide the user with background information on each topic. The 'how to' sections provide instructions on how to perform tasks in Word.

'How to' instructions take the format of numbered instructions with screenshots from Word. An initial instruction is often followed by a screenshot that shows the user what should happen next. Screenshots are labelled with key points that will be used in subsequent instructions.

Note boxes are used to draw the user's attention to important points that must not be forgotten.

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Making Accessible Documents and PDFs with Word 2010

AN INTRODUCTION TO ACCESSIBLE WORD DOCUMENTS

In this section we will introduce accessible Word documents

- Word accessibility explained
- Accessibility legislation explained

WORD ACCESSIBILITY EXPLAINED

An accessible Word document is one which has been made to be accessible to as many people as possible, including those with disabilities. A Word document may be distributed in printed or electronic format, and there are a number of simple steps that can be taken to make it more readable for all. Word files are also frequently converted into PDF (Portable Document Format) documents and made available online. The key to creating an accessible PDF file is to begin with a correctly structured and formatted source file.

This training manual outlines a number of simple techniques that can be used to help create accessible Word documents. In addition, many of the techniques, such as Styles, can help to make document formatting easier and more efficient.

ACCESSIBILITY LEGISLATION EXPLAINED

It is a legal requirement to produce accessible documentation. There have been two key pieces of legislation relating to disability discrimination in the UK. **The Disability Discrimination Act 1995 (DDA)** makes it illegal to discriminate against people with disabilities. The Act outlaws discrimination in employment and the provision of goods and services. The DDA applies to any organisation that provides a service.

In 2001 the **Special Educational Needs and Disability Act (SENDA)** was passed to include education within the DDA. The Act covers all services provided for students. SENDA states that an educational institution should not treat a disabled person 'less favourably' because of their disability. Institutions are required to make 'reasonable adjustments' if a disabled person would otherwise be placed at a 'substantial disadvantage', and that these adjustments should be 'anticipatory'. The legislation applies to admissions, enrolments and other student services, including assessment and teaching materials.

CREATING A STRUCTURED DOCUMENT

In this section we will look at Document Structure

- Document structure explained
- Using styles to create a structured document
- Styles explained
- Applying existing styles
- Modifying styles

DOCUMENT STRUCTURE EXPLAINED

The first stage in making a document accessible is to ensure that it is well-structured. When information is presented in a hierarchy of sections and subsections it becomes more accessible for all people. For example, headlines in a newspaper provide visual cues for the reader. When skimming a page the human eye will naturally focus on the headlines, as these are much easier to browse than dense paragraphs of texts.

Adding headings to a document allows the reader to navigate the document easily and focus on the sections they are interested in. When used effectively, headings provide enough information to enable the reader to decide whether they want to read the text or skip to the next section. Headings also have the benefit of creating additional white space on the page and breaking up the text.

USING STYLES TO CREATE A STRUCTURED DOCUMENT

Headings should be easily identifiable and stand out from normal text. This can be achieved by editing formatting attributes such as font size, font style and paragraph spacing. However, headings should always be created using Word's heading **Styles**, rather than simply formatting text to look like a heading.

All Word documents contain a number of pre-existing heading styles that can be applied to text. An advantage of using styles is that once applied, any change to the style will automatically update any text in a document based on that style. This is more efficient than individually editing each paragraph or heading.

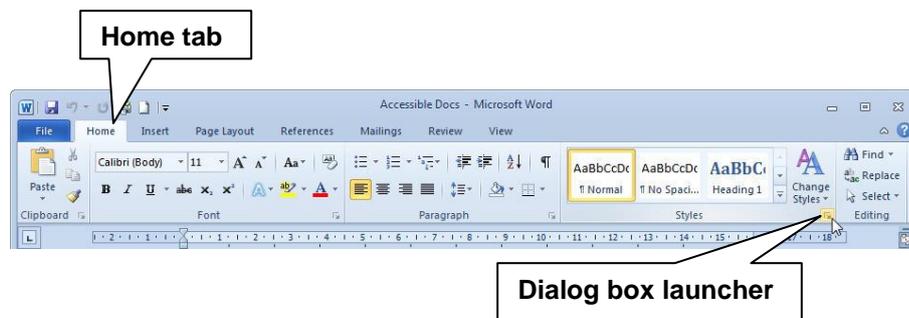
Visually it may appear that a style is simply a collection of attributes applied to text to make it look different from other text. However, in the background, styles are also attaching important structural elements to the document. This structure makes it possible to use features such as a tables of contents, navigation pane, outline view, and cross-references.

Structuring a document with heading styles increases accessibility in many ways:

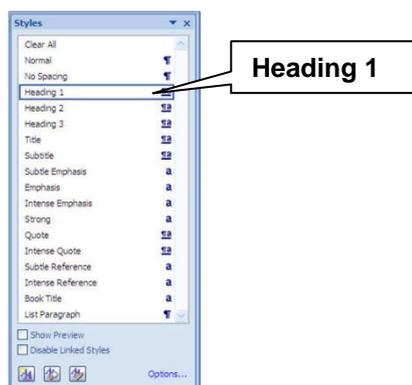
- Styles allow you to quickly generate a Table of Contents.
- Assistive technologies, such as screen readers, rely on styles to navigate and describe the structure of the document.
- Cross-referencing is easier when styles are used.
- When a Word file is converted to PDF format the styles are used to generate tags in the PDF files. These tags are used by screen readers to read the document correctly.
- Word heading styles are used to create bookmarks when converted into PDF.

APPLYING EXISTING STYLES

1. Highlight the text in the document that is to become a heading.
2. Select the **Home** tab on the Word ribbon.



3. Select the **Dialog Box Launcher**  in the **Styles** Group to open the **Styles** dialog box.
4. Select the appropriate style, e.g. **Heading 1**.

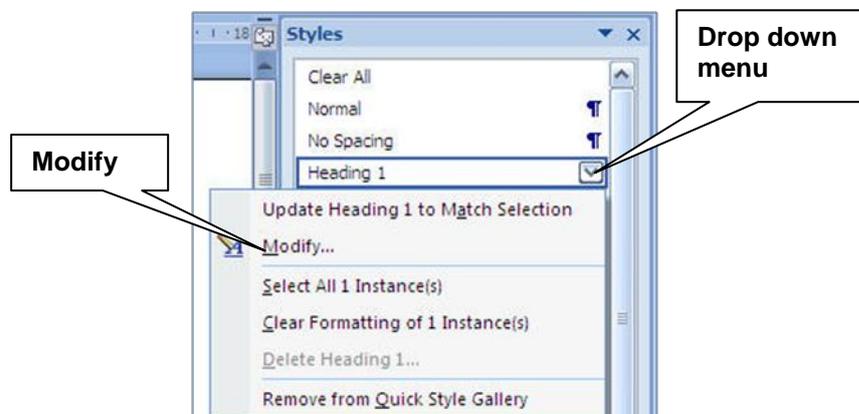


MODIFYING EXISTING STYLES

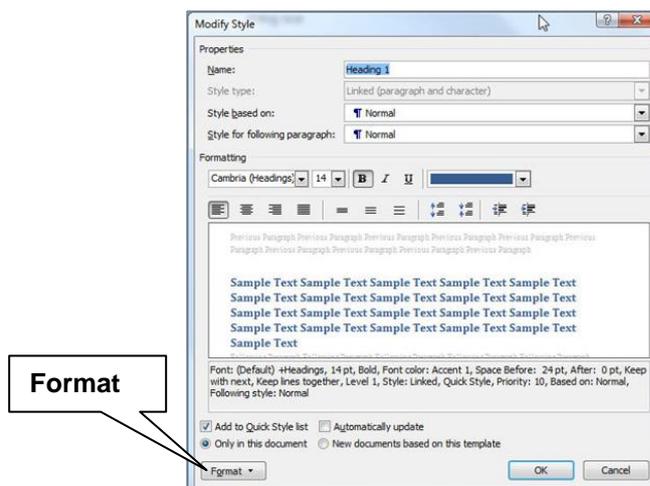
1. Select the **Dialog Box Launcher**  in the **Styles** Group to open the **Styles** dialog box



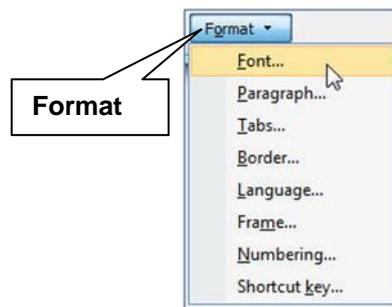
2. Position the mouse pointer over the style to be modified.
3. Open the drop-down menu.



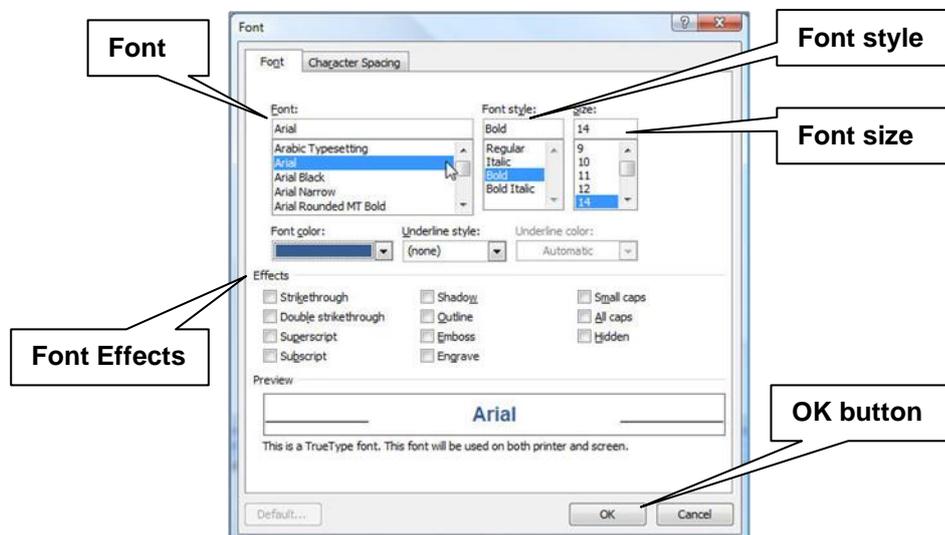
4. Choose the **Modify** button.
5. Open the **Format** menu.

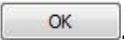


6. Choose from the options available, for example **Font**.



7. Amend the **Font** formatting attributes as necessary.



8. Select the **OK** button .



This technique will change the formatting of every instance of the style in the document. Using styles can help you to work more efficiently.

USING LISTS

LISTS EXPLAINED

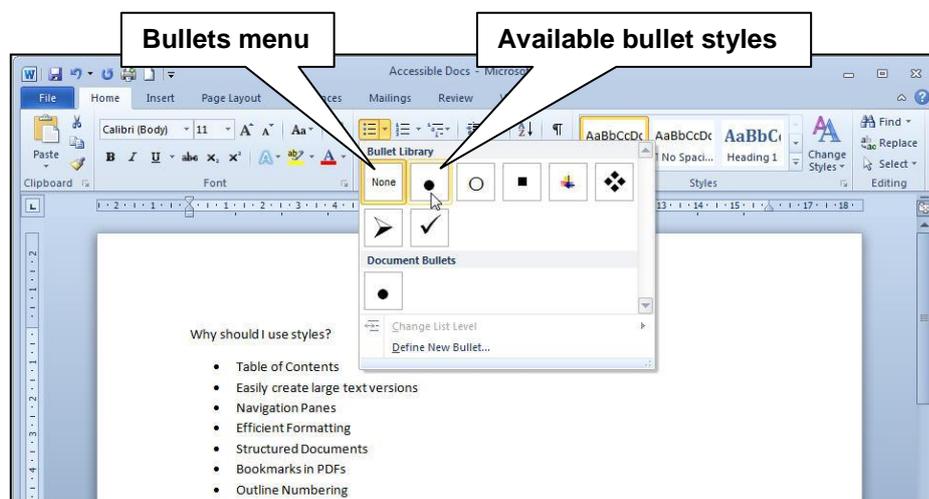
Using lists can help to make documents more accessible by breaking up dense paragraphs and highlighting important points.

- **Bulleted Lists** should be used to list important points.
- **Numbered Lists** should be used for instructions.

Always use Word's inbuilt **Bullets** and **Numbering** tools to add lists to a document.

ADDING A LIST IN WORD

1. Highlight the text that is to be converted to a bulleted or numbered list.
2. Select the **Home** tab on the Word ribbon.
3. Select either the **Bullets** button  or the **Numbering** button  from the **Paragraph** group.



4. Choose one of the options available.

MAKING TEXT ACCESSIBLE

In this section we will look at making text accessible.

- Making text accessible explained
- Accessible text checklist

MAKING TEXT ACCESSIBLE EXPLAINED

A few simple considerations can help to make sure that text in a document is accessible to all readers. Key factors include font, font size, font style, and text alignment. Pages should also include plenty of white space as this makes the document easier to read. Best practice when formatting text is to use **styles** (see **Applying Existing Styles** on page 3 and **Modifying Existing Styles** on page 4 for more information).

Another factor to consider is the use of colour in documents. Make sure there is sufficient contrast between the background colour and text colour. Also, be aware that some readers may not be able to see colour differences. For this reason formatting should not be used as the only way of conveying information, e.g. highlighting issues of concern in red text etc.

ACCESSIBLE TEXT CHECKLIST

- Avoid using a small font size. We would recommend using **size 12 point**.
- Use a **sans-serif font**, such as Arial, Calibri, Tahoma, Verdana, etc.
- Use **Styles** to add structure to the document. Use the appropriate heading style to create headings rather than simply changing the format of the text to make it look like a heading.
- Create pages with plenty of white space.
- Avoid having large sections of italics, underlined text or capitals.
- Do not justify text.
- Use lists instead of dense paragraphs where applicable.
- Use the **paragraph spacing tools** to increase space between paragraphs rather than using the enter key.
- Never use formatting as the only way of conveying information.
- Make sure that there is a high contrast between background and text colour.
- Always spell check text. Screen readers will have difficulty pronouncing incorrect words.

MAKING GRAPHICS ACCESSIBLE

In this section we will look at making graphics accessible.

- Accessible graphics explained
- Alternative text explained
- Adding alternative text
- Making complex graphics accessible
- Working with the Drawing Canvas
- Grouping objects
- Text boxes

ACCESSIBLE GRAPHICS EXPLAINED

Using graphics in a document can help to make the information more accessible to some readers, as they may find images more meaningful than large amounts of text. However, using graphics can also be a barrier to those people reading the document via screen reading software. It is for this reason that **alternative text** should always be added to graphics.

Alternative text should be added to all graphics, including **images, clip art, shapes, diagrams** and **charts**. The text should be brief and convey the information represented in the object. This allows assistive technologies to describe the image to the reader.

Other points to note when considering the accessibility of a graphic include:

- Ensure that there is plenty of white space between graphics and the surrounding text. Images that are too close to text may not get recognised when files are converted to PDF.
- Images that are inserted **In Line with Text** convert best to PDF.
- Graphics made up of a number of objects should be inserted using the **Drawing Canvas** and **Grouped** together.
- For complex graphics, such as charts, it is recommended that a longer description is included within the text of the document.

ALTERNATIVE TEXT EXPLAINED

Alternative text is added to graphics so that assistive software can read a description of the image to the reader. Text should be brief and convey the meaning and purpose of the graphic.

Some images may not require alternative text. For example, an organisation’s logo might be added to a document purely for branding reasons. There is no information conveyed by this type of graphic, so there is no need for a screen reader to read it. In situations like this there is no need to add alternative text.

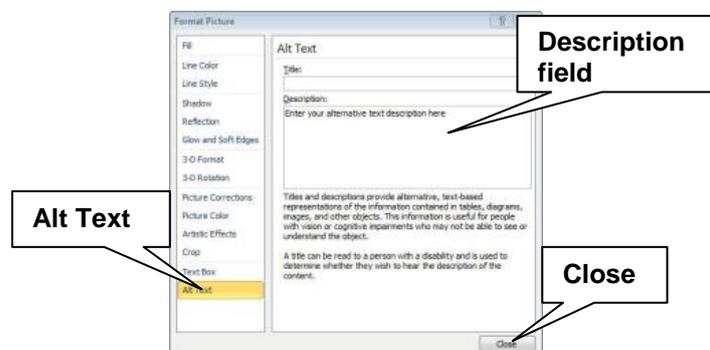
ADDING ALTERNATIVE TEXT TO AN IMAGE

The instructions below describe adding **alternative text** to an image. A similar process should be followed when inserting other objects such as **Clip Art**, **SmartArt diagrams** and **Charts**.

1. Insert the image into the document.
2. Select the **Format** tab on the Word ribbon.
3. Select the **Dialog Box Launcher** located in the **Picture Styles** group.



4. Select the **Alt Text** pane on the **Format Picture** dialog box.
5. Enter a brief description of the purpose of the image into the **Description** field.



6. Select the **Close** button.

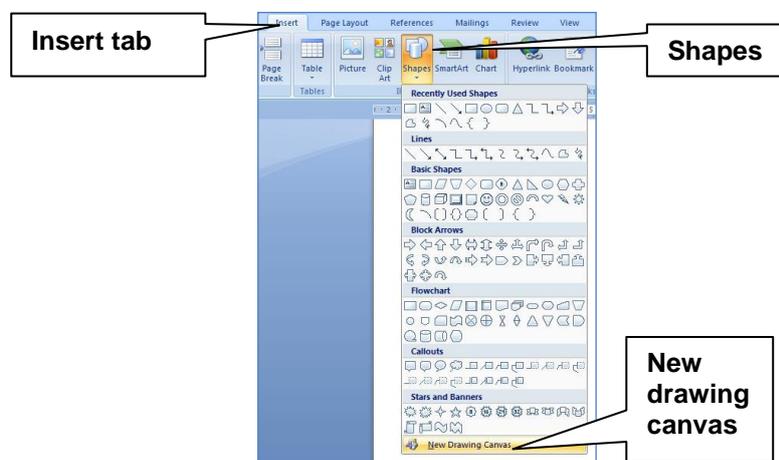
MAKING COMPLEX GRAPHICS ACCESSIBLE

- Objects such as Charts are often too complex to describe briefly using alternative text. In this situation it is good practice to include a summary of the chart in the text of the document.
- Graphics made up of a number of items have to be Grouped together to form one object. Grouping ensures that the individual components do not move around or get hidden behind other objects.
- Grouped objects should have an alternative text description added to describe the whole graphic.

WORKING WITH THE DRAWING CANVAS

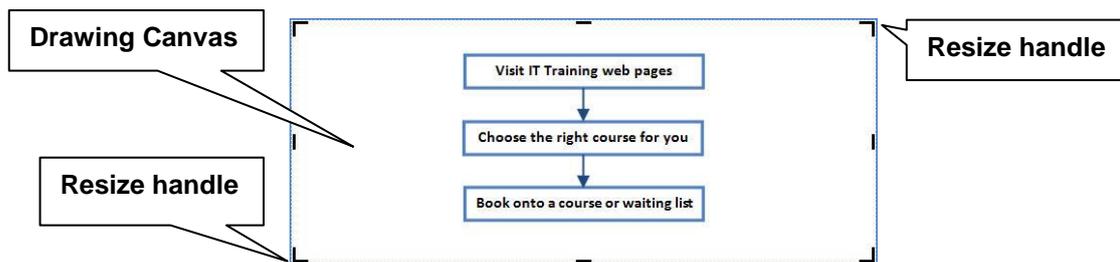
When a graphic is made up of a number of items, these have to be grouped together to form one object. Objects should be inserted using the **Drawing Canvas**. This ensures that they can be grouped together. The combined object will also be inserted into the document **In Line with Text**.

1. Select the **Insert** tab on the Word ribbon.
2. Open the **Shapes** menu and choose **New Drawing Canvas**.



3. Select the **Drawing Canvas**.
4. Insert graphics as necessary using the commands in the **Illustration** group of the **Insert** tab, i.e. **Picture**, **Clip Art**, **Shapes**, **SmartArt** or **Chart**.

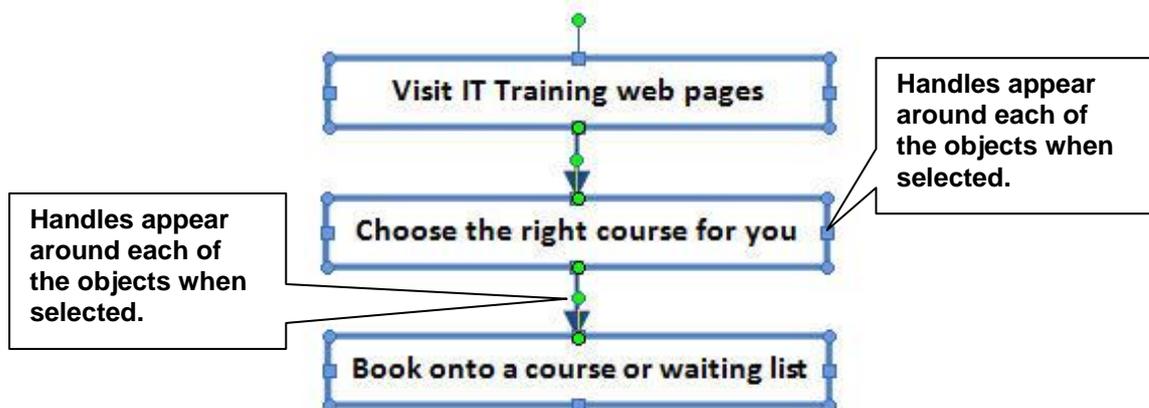
5. Resize the drawing canvas as necessary using the **resize handles**.



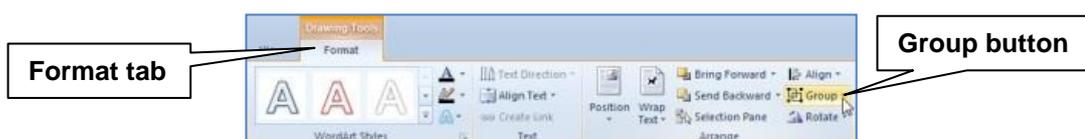
GROUPING OBJECTS

Graphics comprised of a number of different elements have to be grouped together into one object. **Alternative text** should then be added to the grouped object.

1. Insert your graphic into the document using a Drawing Canvas. See **Working with the Drawing Canvas** on page 10 for more details.
2. Select all the objects by holding down the **CTRL** key while clicking on them.



3. Select the **Format** tab on the Word ribbon.



4. Open the **Group** menu.
5. Choose the **Group** button.



Add alternative text to the drawing canvas object

TEXT BOXES

Text Boxes are floating objects which have no fixed position, and can be problematic for assistive technologies. Text boxes are often placed behind other objects when a word document is converted to a PDF. This can cause screen readers to read them in the wrong place or ignore them altogether. We would recommend that you avoid using text boxes unless absolutely necessary.

If text boxes are essential then the following techniques must be applied:

- All objects must be grouped together (see and **Grouping Objects** on page 11 for more details).
- Any information in the text boxes should also be conveyed in the body of the document.

WORKING WITH TABLES

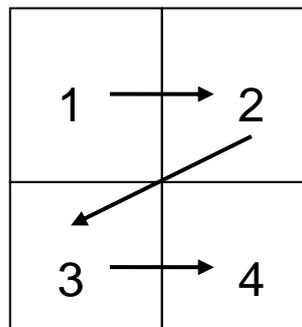
In this section we will look at Tables.

- Accessible tables explained
- Accessible tables checklist
- Adding tables in Word
- Specifying the Header Row
- Adding alternative text to tables

ACCESSIBLE TABLES EXPLAINED

Tables of information will only be accessible if they have been created using Word's Table tool. Never try to achieve a similar effect using tabs or spaces as these are not accessible to assistive technologies. Another important factor to consider when designing tables is that anything other than a simple structure can pose problems to screen readers.

Assistive technologies read tables in a linear fashion. A screen reader reads the entire contents of the first cell in the first row, and then moves to the next cell, repeating the process until it reaches the end of the row. Then it moves to the second row and reads the contents of each cell one after the other, and so on. Tables have to be designed so that the contents will make sense to people using screen readers.

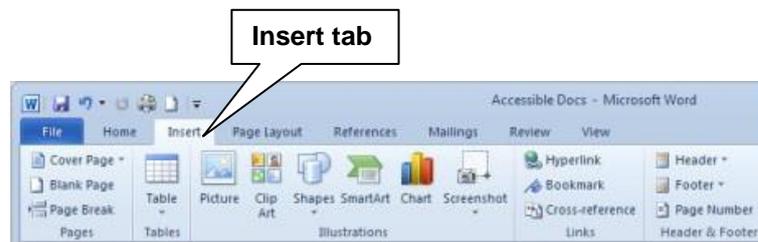


ACCESSIBLE TABLES CHECKLIST

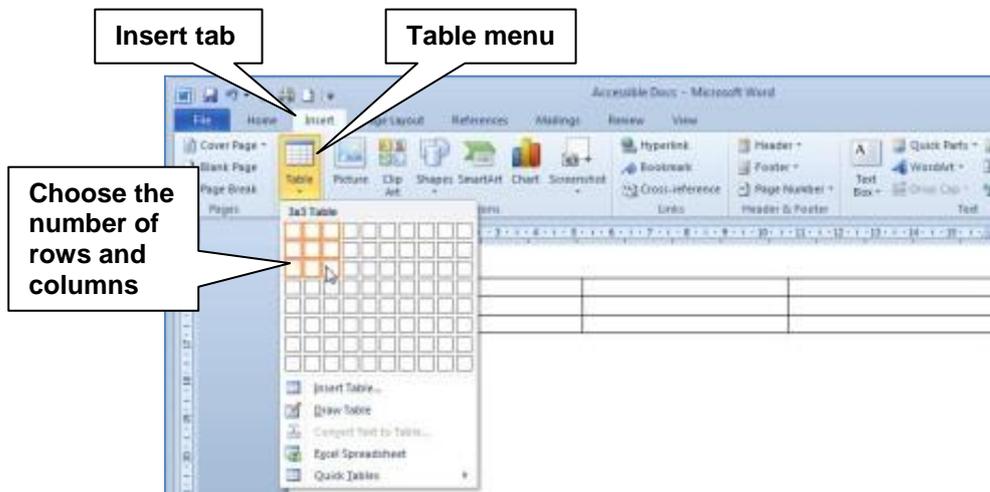
- Create tables using the Word's Table function. Do not create tables using tabs and spaces.
- Create simple tables. Avoid merging cells to create complex structures. Make sure the table makes sense when read in a linear fashion.
- Use the **Table Properties** to specify the **Header Row** if the table contains a header row.
- Consider summarising the information contained in the table in text below.

ADDING TABLES IN WORD

1. Select the **Insert** tab on the Word ribbon.



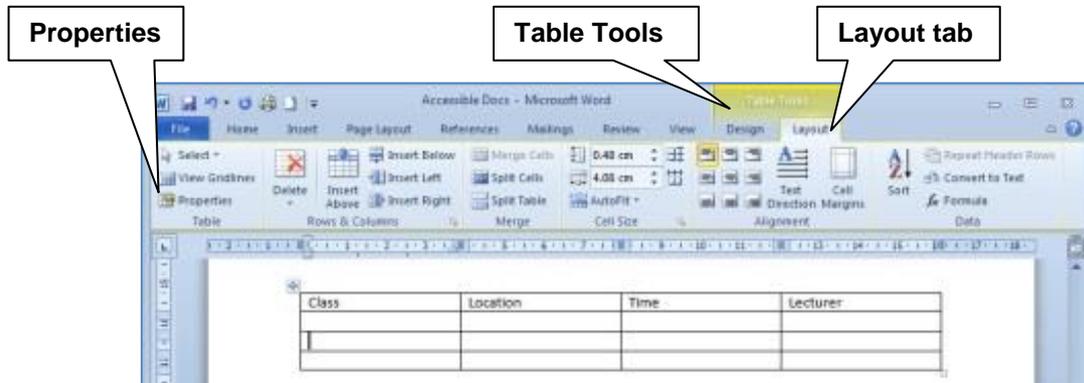
2. Open the **Table** menu.
3. Choose the number of rows and columns required



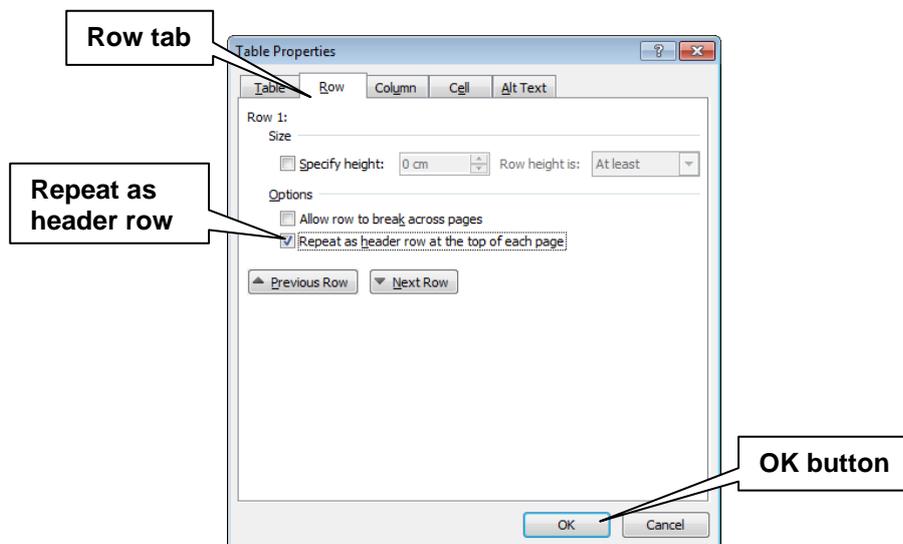
Tables can also be inserted using the Insert Table command within the table menu.

SPECIFYING THE HEADER ROW

1. Position the cursor in a cell in the first row of the table.
2. Select the **Layout** tab in the **Table Tools** section of the ribbon.



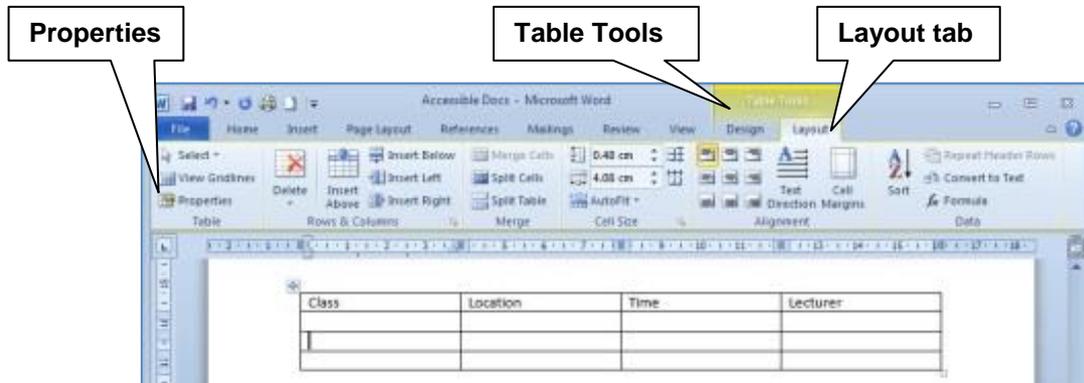
3. Select the **Properties** button in the **Table** group of the **Layout** tab.



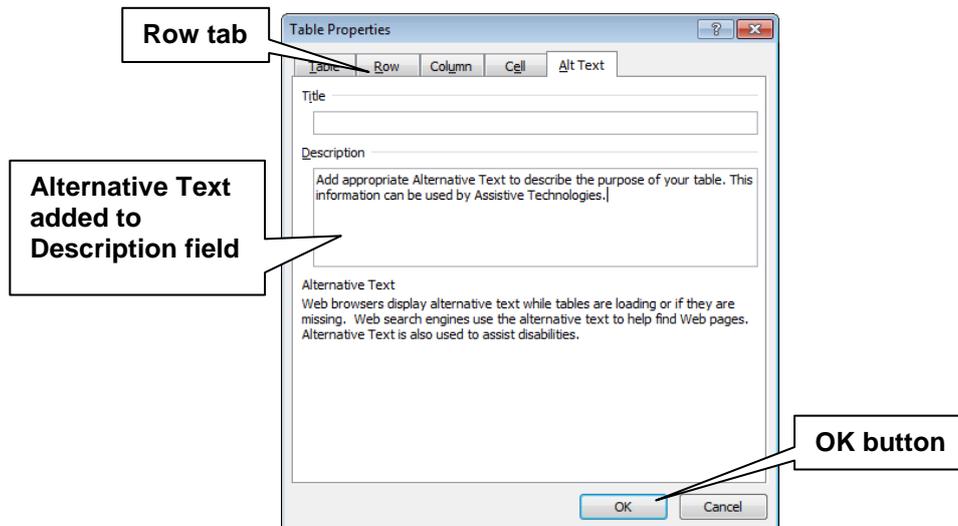
4. Select the **Row** tab.
5. Put a tick in the **Repeat as header row at the top of each page** tick box.
6. Select the **OK** button .

ADDING ALTERNATIVE TEXT TO TABLES

1. Position the cursor in a cell in the first row of the table.
2. Select the **Layout** tab in the **Table Tools** section of the ribbon.



3. Select the **Properties** button in the **Table** group of the **Layout** tab.



4. Select the **Alt Text** tab.
5. Enter text to describe the purpose of the table in the **Description** field.
6. Select the **OK** button .

DOCUMENT NAVIGATION

In this section we will look at ways to increase the accessibility of a document by utilising a variety of **Document Navigation** functions.

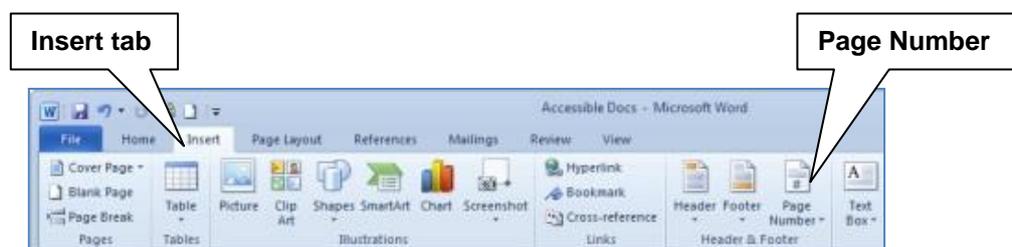
- Page Numbers
- Table of Contents
- Hyperlinks
- Cross-references

DOCUMENT NAVIGATION EXPLAINED

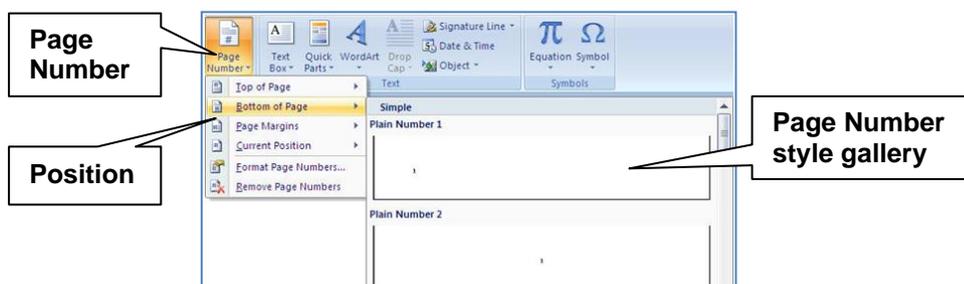
There are a number of techniques that can be used to help readers navigate around a document, including those using assistive technologies. Inserting **Cross-references**, **Hyperlinks** and a **Tables of Contents** allow the reader to jump straight to the sections they are interested in.

INSERTING PAGE NUMBERS

1. Select the **Insert** tab on the Word ribbon.



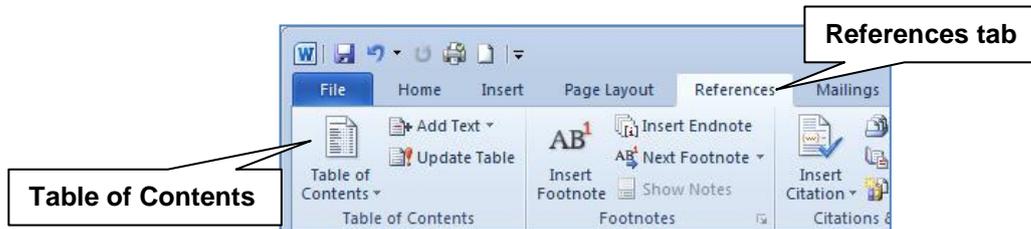
2. Open the **Page Number** menu in the **Header & Footer** group.
3. Choose from the four options available: **Top of Page**, **Bottom of Page**, **Page Margins** or **Current Position**.



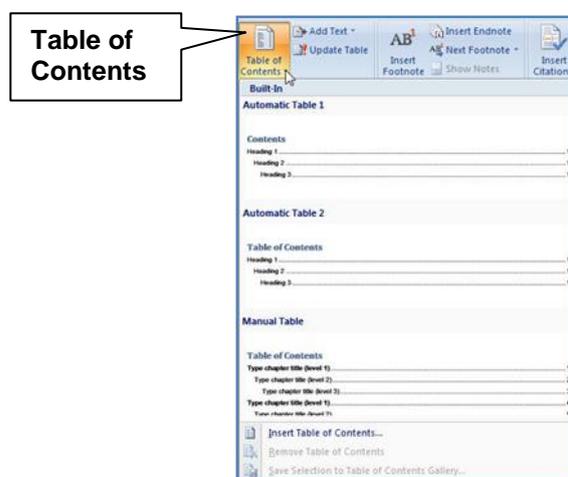
4. Choose a page number style from the gallery, e.g. Plain Number 2.

ADDING A TABLE OF CONTENTS

1. Select the **References** tab on the Word ribbon.



2. Select the **Table of Contents** button in the Table of Contents group.



3. Choose either **Automatic Table 1** or **Automatic Table 2**.

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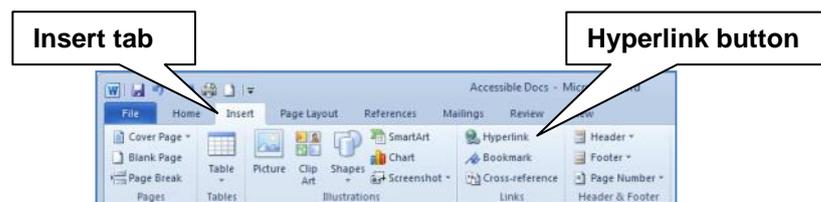
ADDING A HYPERLINK IN WORD

Hyperlinks are used to allow readers to access other documents or web pages from a Word document. Hyperlinks continue to work when a document is converted into PDF format.

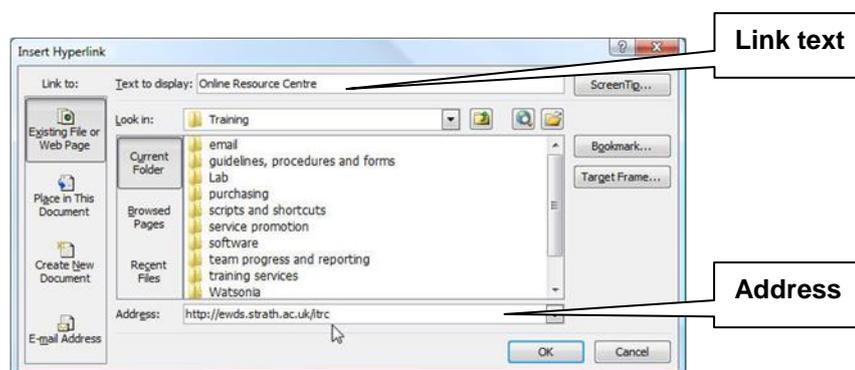


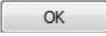
It is good practice to make sure links are meaningful when read out of context. For example, never use 'click here' as the link text.

1. Highlight the text which is to become a **hyperlink**.
2. Select the **Insert** tab on the Word ribbon.



3. Select the **Hyperlink** button .
4. Enter the folder location or web address in the **Address** text box.

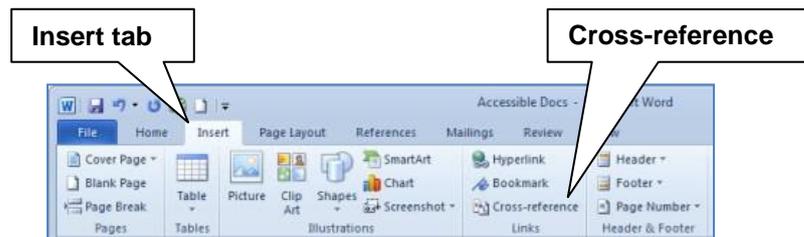


5. Select the **OK** button .

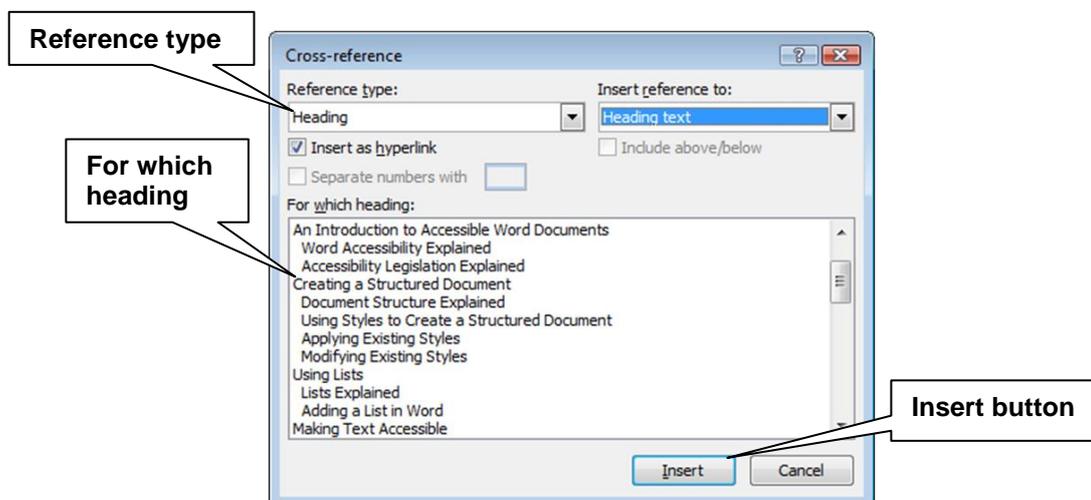
CROSS REFERENCES IN WORD

Using Word's **Cross-reference** tool can increase the navigability of a document. The reader can select the Cross-reference to automatically jump to another section in the same document.

1. Position the cursor where the Cross-reference is to be inserted.
2. Select the **Insert** tab on the ribbon.



3. Select **Cross-reference** from **Links** group.



4. Choose the **Reference Type**, e.g. Heading.
5. Put a tick in the **Insert as hyperlink** tick box.
6. Choose from the available options in the **For which heading** list.
7. Select the **Insert** button .

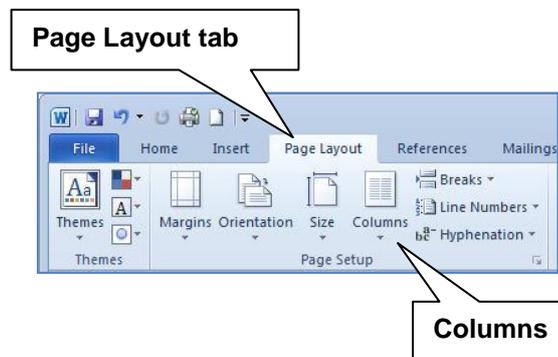
WORKING WITH COLUMNS

COLUMNS EXPLAINED

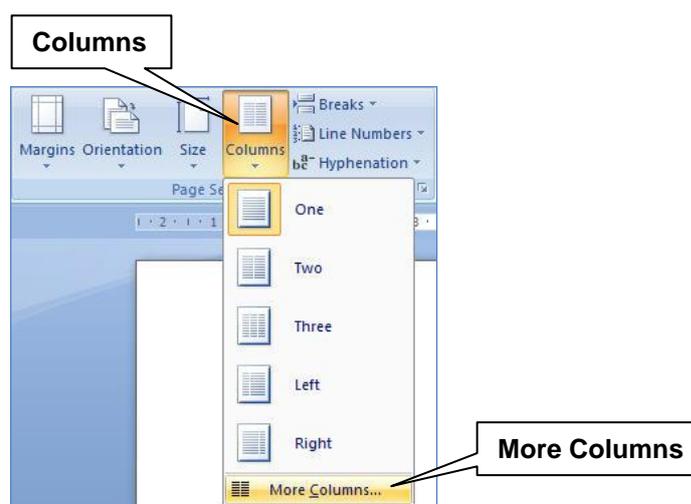
Word documents can be formatted to display text in newspaper style columns. Columns should always be created using the inbuilt **Columns** function in Word. Never attempt to achieve a similar effect using tabs or spaces. Make sure there is enough space between columns as this helps to make the page easy to read. If the document is to be converted into PDF format this is very important, as if the gap between the columns is too narrow the columns will not be converted properly.

COLUMNS IN WORD

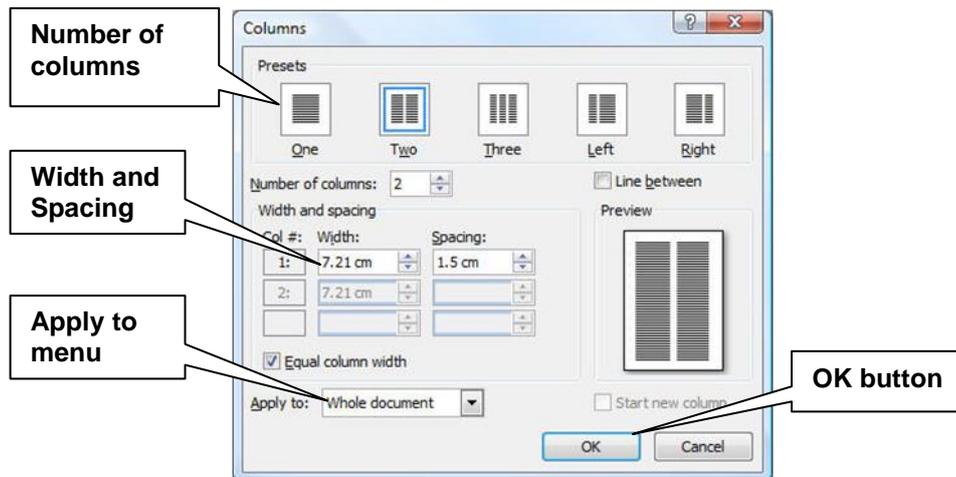
1. Select the **Page Layout** tab on the Word ribbon.



2. Open the **Columns** menu.



3. Choose **More Columns**.



4. Select the **Number of columns**.

5. Select the **Width and Spacing**.

6. Open the **Apply to** menu and choose to apply the columns to **Selected Text**, **Selected Section** or **Whole Document**.

7. Select the **OK** button.

CREATING AN ACCESSIBLE PDF WITH WORD

In this section we will look at converting Word files to accessible PDFs.

- Accessible PDFs explained
- Creating PDFs in Word

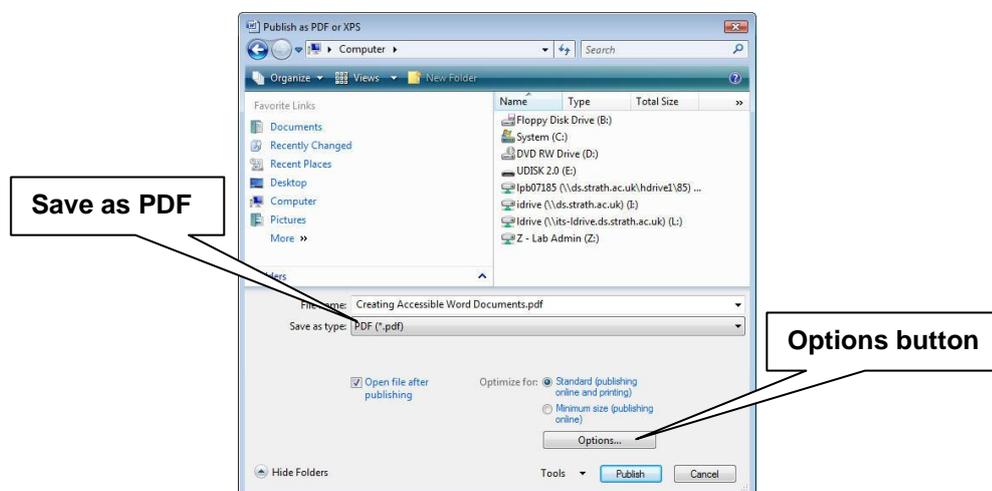
ACCESSIBLE PDFS EXPLAINED

An accessible PDF file contains tags that provide assistive technologies with a textual representation of the structure of the document. These tags are included purely for accessibility purposes and do not appear on screen. The tags are generated from the styles in the source Word document. Word 2010 allows you to create a tagged PDF file from a Word document.

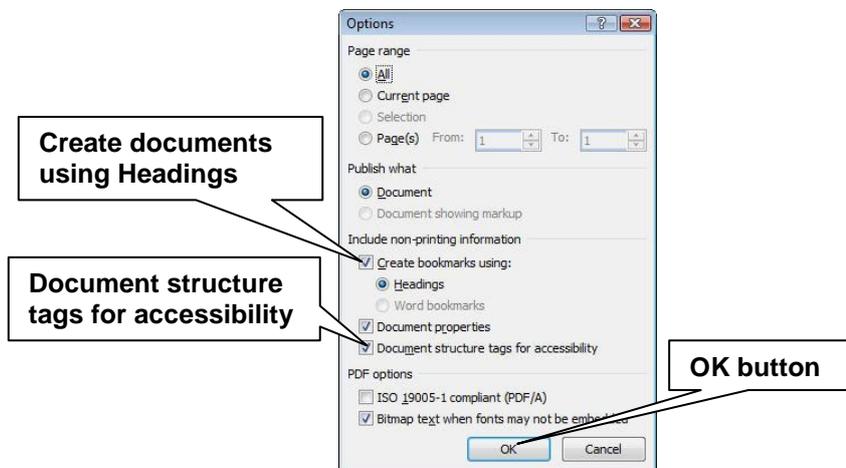
CREATING PDFS IN WORD

Office 2010 allows you to save a Word document as a PDF.

1. Open the source Word document.
2. Open the **File** tab.
3. Select the **Save As** button.
4. Choose **PDF** from the **Save as type** menu.
5. Select the **Options** button.



6. Put a tick in the **Create bookmarks using** tick box and select **Headings**.
7. Put a tick in the **Document Structure tags for accessibility** tick box.



8. Select the **OK** button.
9. Select the **Publish** button.

ACCESSIBLE WORD DOCUMENTS CHECKLIST

Alternative (ALT) Text	Graphics and images should contain alternative text. Alternative text should be a brief text description of the object, describing the intention of the graphic, not just a literal description
Bullets and Numbering	Bullets should be used to highlight important points. Numbered lists should be used for instructions.
Colours	Never use colour as the only way of conveying information. Make sure that there is a high contrast between background and text colour.
Columns	Create columns using Word's Columns tool. Make sure there is plenty of space between columns.
Cross References	Word's Cross-reference feature can be used to create links between sections of the same document.
Font	Use a sans-serif font, such as Arial or Calibri.
Font Size	Text should be at least 12 point.
Complex Graphics	Graphics made up of a number of items should be grouped together and alternative text added to the whole object. Consider adding a description of complex charts in the text of a document.
Headings	Always use styles to format titles and headings in a document. Headings should clearly state what the following section is about. Use sub-headings to break up large paragraphs of text in a section.
Hyperlinks	Hyperlinks should make sense when read out of context.
Language	Use simple, straightforward language that is easy to understand.
Paragraphs	Avoid dense paragraphs of text by using bullets where possible. Use paragraph spacing to increase the white space between paragraphs.
Styles	Always use styles to format titles and headings in a document.
Tables	Avoid complex tables. Make sure tables are designed so that they make sense when read in a linear fashion, i.e. horizontally.
Text Boxes	Avoid text boxes if possible.
Table of Contents	Use a Table of Contents when working with a large document. Using heading styles makes this a simple task.