Quick Guide for Creating Accessible Microsoft Excel Workbooks

Set a Descriptive Document Title
Document titles help users know what document they are viewing.
1. Navigate to and select File > Info > Properties
2. Select Show Document Panel or Advanced Properties
3. Enter a meaningful title in the Title field.
4. Optional: Enter an Author (i.e. individual or organization name)

Give Worksheets Unique Names
Sheet names should provide information about what is found on the worksheet, making it easier to navigate through a workbook. Any blank sheets in a workbook should be removed.
1. Right-click the sheet tab, and then click Rename.
2. Type a brief, unique name that is descriptive of the sheet contents.

Style Sections as Headings
Headings indicate the beginning of a new document or major section. Headings should be selected based on their hierarchy, or importance, in the document. Excel offers four levels of headings - Heading 1 - Heading 4. It is best to only use Heading 1 once such as for the title of the document.
1. Highlight the cell that contains the desired phrase to be a heading
2. Navigate to the Home ribbon and locate the Styles pane
3. Select Heading 1 – Heading 4 for the phrase respective to its hierarchy in the document.

Design Tables Properly
There are several things to keep in mind when designing tables.
- Keep tables simple and only have one (1) table per worksheet.
- Complex tables (those that have data cells that relate to two or more row and/or column headers) are difficult for users of assistive technology to understand the relationships.
  - This also includes avoiding merged cells.
  - If you have a complex table either split it into multiple simple tables or provide instruction on accessing an alternate version.
- Never use spaces or the tab key to simulate the appearance of a table.
- Avoid blank rows and columns
- Avoid blank cells, especially table header cells.
- Any tables that break across pages must repeat the table header at the top of each page.
- All data needs to be rendered in separate cells within the rows and columns.
- Avoid placing paragraph text around tables.
- Table captions can be helpful in identifying the purpose of the table.

Mark Data Cells as a Table:
1. Highlight the cells that are to be a table.
2. Navigate to the Insert ribbon and in the Tables group activate Table.
3. In the Create Table dialog, confirm the My table has headers checkbox is checked.
4. Navigate to and activate the OK button.
Use Effective Color and Contrast
Effective use of color will ensure that content is readable, accessible, and appealing.
1. Color should not be used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
   a. Example: graphs may need textured patterns to represent data sets. Or important information should have an additional textual representation such as an asterisk (*).
2. Verify the text color provides enough contrast against the background color. There must be a minimum contrast ratio of 4.5:1.
   a. Use the Font Color picker from the Home ribbon to choose an appropriate color against the background.

Add Alternative Text to Graphics
Alternate (ALT) text should be added for pictures, clip art, charts, and shapes. Keep alternate text to 250 characters or less.
Note: For complex images such as process flows and charts, additional description needs to be provided in an appendix or in surrounding text. The alternate text should direct users to the longer description.
1. Pre-step for Complex Images: If there are multiple pieces of an image, select all the pieces of the image. From the context (or right click) menu select Group > Group to create one large image.
2. Activate the context (or right click) menu of the image or object and activate Format.
4. Type a description of the image or object into the Description field. The image description should focus on the purpose of the image. Note: Title may not be read by all assistive technologies. It is important to convey the meaning in the Description field.

Inserting Hyperlinks
Ensure the link text sufficiently describes the purpose of the link.
1. Place the cursor where a hyperlink is to be added.
2. On the Insert ribbon, in the Links group, activate Hyperlink or press CTRL+K to open the Insert Hyperlink dialog box.
3. In the Text to display field, briefly describe the link destination.
4. In the Address field, insert the link URL.
5. Navigate to and activate OK.

Protecting Data
Protecting a worksheet can be necessary but it is important that users have access to all the cells.
1. On the Review ribbon, in the Protect group select Protect Sheet.
2. In the Protect Sheet dialog, confirm Select Locked Cells and Select Unlocked cells are checked in the Allow all users of this worksheet to section.
3. Navigate to and activate the OK button.