

# Guide for Creating Accessible Tables

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## Use Word’s built-in functionality to create Tables

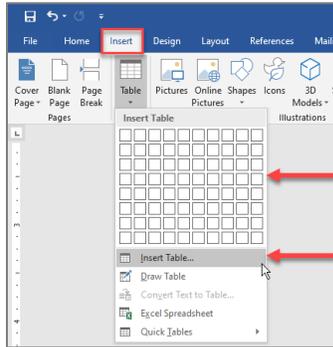
- Create tables by inserting them. **Avoid creating tables by drawing boxes** and lines or by using tabs and spaces. Screen readers have difficulty understanding tables with odd cell sizes.
- Simple Data Tables only.
- Tables have a logical reading order from left to right, top to bottom.
- Tables are labeled with alternative text.
- Provide Title (i.e. Caption) and Summary before the Table.
- Use Table Tools editor to identify the different types of rows and columns such as **Header Row and First Column**.

## Keep your table simple

- Simple tables are easier to interpret for all students and screen readers.
- Use tables to organize data not format information. Never use table for layout.
- **Avoid merging cells, split cells, no blank cells, as well as tables nested within a cell.**
- The complex a table (merging cells, nesting multiple headings under one, adding blank lines, etc.) the worse it will be for accessibility.
- Sample of [Simple Tables vs. Complex Tables](#) by Penn State.

## Step 1: Create a Table

- Go to **Insert** and go to the “table” dropdown.
- Select **insert a table**

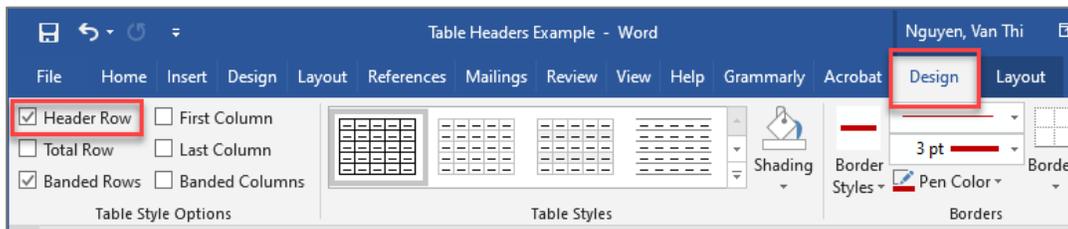


## Step 2: Select Table Header Row

A table header row contains column headings that provide context and aid navigation of the table. People who can't see the table can have column headings read aloud.


<b>Header 1</b>	<b>Header 2</b>	<b>Header 3</b>
Data 1	Data 2	Data 3
Data 4	Data 5	Data 6

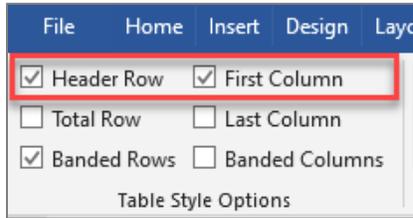
### Example of Header Row



Design Tab > Header Row

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

## Example of Header Row and First Column



Design Tab > Header Row and First Column

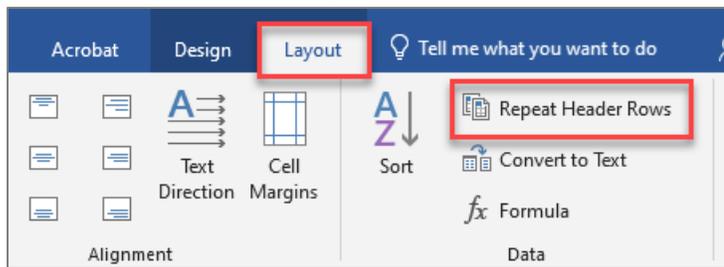
Name	Project	Presentation
Student 1	95%	100%
Student 2	90%	75%
Student 3	60%	85%

## Step 3: Repeat Header Rows / Table Headers Properties

Proper **table headers** help readers understand how tables are organized into columns and rows. Avoid solely using text and cell formatting, such as making the text big or bold to mimic the visual appearance of a table header, as this provides no underlying information about the structure of the table. Follow either option to set Repeat Header Rows.

### Option 1: Repeat Header Rows

- Highlight the first row
- Layout tab then select Repeat Header Rows



### Option 2: Table Properties Options: Row and Alt Text tabs

- Deselect "Allow row to break across pages"
- Select "Repeat as header row at the top of each page"
- **Note:** If empty cells intentionally left blank to fill in answers, mention in Alt Text, Description box. See next page.

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

1. Highlight entire first row  
2. Right-click to select Table Properties

Table Properties

Table Row Column Cell **Alt Text**

Rows

Size

Specify height: 0" Row height is: At least

Options

Allow row to break across pages  
 Repeat as header row at the top of each page

Previous Row Next Row

OK Cancel

**Example of empty cells intentionally left blank to fill in the answers, mention in Alt Text, Description box.**

Social Work Rubrics	1 = very weak	2 = weak	3 = average	4 = strong	5 = very strong
1. Student critiqued the relevance of the research question to social work practice.					
2. Student critically appraised the Introduction of the study.					

Table Properties

Table Row Column Cell **Alt Text**

Title

Description

Social Work Rubrics intentionally left blank to fill in the answers in 5 columns: 1 =very weak, 2=weak, 3=average, 4=strong, 5=very strong.

Alternative Text

Titles and descriptions provide alternative, text-based representations of the information contained in tables, diagrams, images, and other objects. This information is useful for people with vision or cognitive impairments who may not be able to see or understand the object.

A title can be read to a person with a disability and is used to determine whether they wish to hear the description of the content.

OK Cancel

## What is “Allow row to break across pages”?

When inserting a table at the bottom of a page in Word, the table break across two pages show **two repeating header rows**. Users with visual or cognitive challenges or screen readers, breaking table content across two pages causes readability and comprehensive barriers.

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%

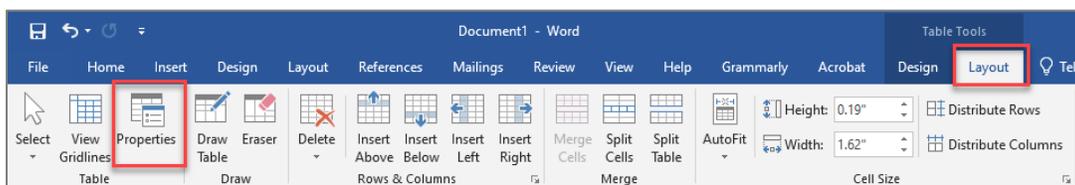
Page 1

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Grade	Points	Percentage
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	59% or lower

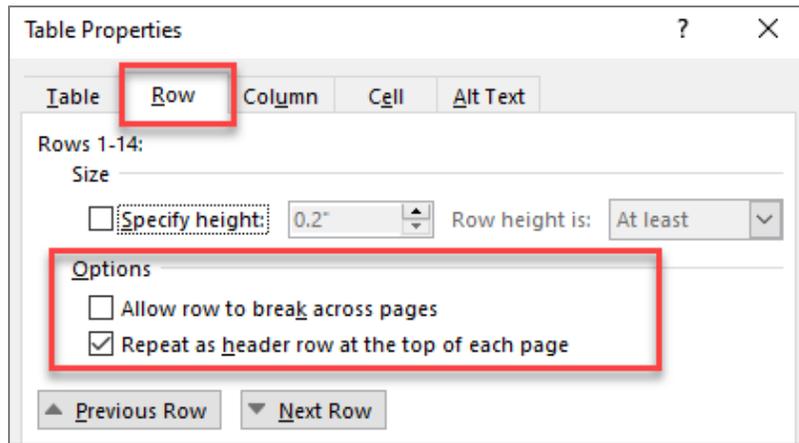
## How to keep table rows on the same page?

1. Select the table which breaks across two pages then select **Layout** tab (under **Table Tools**) then **Properties**.

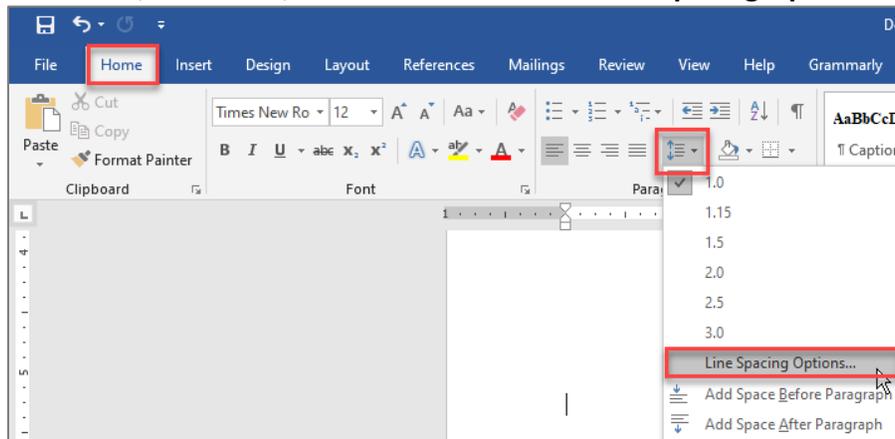


3. In **Table Properties**, select **Row** tab then

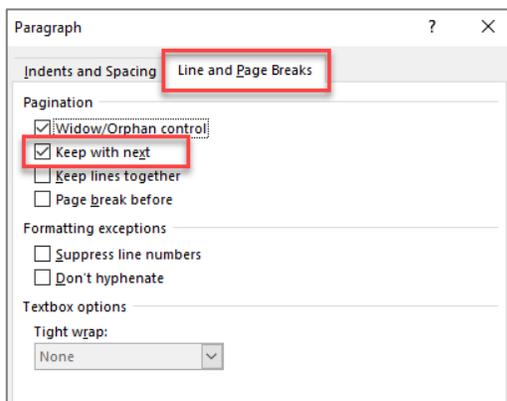
- a. uncheck **Allow row to break across pages** and
- b. check **Repeat as header row at the top of each page**, select then **OK** button.



3. Select the table rows, **Home** tab, select two arrows icon **Line Spacing Options**.



4. In the **Paragraph** settings, select **Line and Page Breaks** tab, check **Keep with next** option, then **OK** button. Now table rows are on the same page.



Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89%
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	59% or lower

## Step 4: Table – Insert Caption

Adding a caption or summary of your table is universal and accessible for everyone.

- Select the table, then right-click to select **Insert Caption** or

- Go to **References** tab, then select **Insert Caption**
- In the popup window, type the title of the table in the **Caption** textbox
- In the **Label** textbox, select **Table**
- **Position** textbox, select **Above selected item** then select **OK**

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%
C	730 to 759	
C minus	700 to 729	
D plus	660 to 699	
D	630 to 659	
D minus	600 to 629	
F	599 points	

Caption

Caption: **Table 1: Grading Scale**

Options

Label: Table

Position: Above selected item

Exclude label from caption

New Label... Delete Label... Numbering...

AutoCaption... **OK** Cancel

**Table 1: Grading Scale**

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%

## How do screen readers read tables?

Tables have a logical reading order starting from left to right, top to bottom. With Header Rows is enabled in Table Properties, screen readers will announce when the tables are present.

### Example 1: Grading scale with table format

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89%
B	830 to 859	83 to 85%
B minus	800 to 829	80 to 82%

Different screen readers may read texts differently. The “+/-” may not be read out loud. Screen readers will read `+` symbol for plus but not `-` symbol. Screen readers do not know whether `-` symbol is minus, hyphen, dash, en dash or em dash. It is always a good practice to spell them out and spell out any abbreviations or make a reference to your abbreviation when used for the first time. Visit [Screen Readers: A Guide to Punctuation and Typographic Symbols](#).

Screen readers announce a table with a number of rows and columns. Screen readers repeat header rows associate with data cells.

table with 7 rows and 3 columns

row 1 Grade column 1

Grade

Points column 2

Points

Percentage column 3

Percentage

row 2 Grade column 1

A plus

Points column 2

960 to 1000

Percentage column 3

96 to 100%

row 3 Grade column 1

A

Points column 2

930 to 959

Percentage column 3

93 to 95%

row 4 Grade column 1

A minus

Points column 2

900 to 929

Percentage column 3

90 to 92%

row 5 Grade column 1

B plus

Points column 2

860 to 899

Percentage column 3

86 to 89%

row 6 Grade column 1

B

Points column 2

830 to 859

Percentage column 3

83 to 85%

row 7 Grade column 1

B minus

Points column 2

800 to 829

Percentage column 3

80 to 82%

out of table

## Example 2: Grading scale without table format

A+ = 100                      B+ = 89                      C+ = 79  
A = 95                         B = 85                         C = 75  
A- = 90                        B- = 80                        C- = 70

Screen readers read line by line like this:

A+ = 100, B+ = 89, C+ = 79

A = 95, B = 85, C = 75

A = 90, B = 80, C = 70 (Screen readers do not know whether - symbol is minus, hyphen, dash, en dash or em dash so it will not read it.)

### Recommend this format

A plus = 100                      A = 95                         A minus = 90  
B plus 89                         B = 85                         B minus = 80  
C plus 79                         C = 75                         C minus = 70

Now screen readers read line by line in an appropriate format that makes sense to sighted and non-sighted students.

A plus = 100, A = 95, A minus = 90

B plus = 89, B = 85, B minus = 80

C plus = 79, C = 75, C minus = 70

## Table Examples

Avoid use table for layout like this format without header row

Course Information	
<b>Course:</b> Accessibility 101	<b>Course Number:</b> 12345
<b>Class Days:</b> Tues and Thursday	<b>Class Times:</b> 9:00 to 11:45am
<b>Semester:</b> Future 3000	<b>Class Location:</b> Library 100

Best practice to use tabs position or columns format

### Course Information

**Course:** Accessibility 101  
**Class Days:** Tues and Thursday  
**Semester:** Future 3000

**Course Number:** 12345  
**Class Times:** 9:00 to 11:45am  
**Class Location:** Library 100

Avoid merged cells table heading “Grading Scale” into the table

Grading Scale		
Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

Place table heading “Grading Scale” outside of the table

Grading Scale		
Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

Screen readers do not know whether - symbol is minus, hyphen, dash, en dash or em dash so it will not read it.

Avoid merged cells table headings “Reading Assignments and Writing Projects” into the table

Reading Assignments		
Week	Topics & Activities	Due Date
1	Reading 1	7/22/2021
2	Reading 2	7/23/2021
Writing Projects		
4	Writing 1	8/1/2021
5	Writing 2	9/1/2021

Place table headings “Reading Assignments and Writing Projects” outside of the table

Reading Assignments		
Week	Topics & Activities	Due date
1	Reading 1	7/22/2021
2	Reading 2	7/23/2021

Writing Projects		
Week	Topics & Activities	Due date
4	Writing 1	8/1/2021
5	Writing 2	9/1/2021

Screen readers may have difficulty in correctly reading the following merged cells.

**Reading Assignments**

<b>Week</b>	<b>Topics &amp; Activities</b>	<b>Due date</b>
1	Reading 1	7/22/2021
	Reading 2	
2	Reading 3	8/2/2021

Un-merged the cells and duplicating information in cells can be read more clearly.

**Reading Assignments**

<b>Week</b>	<b>Topics &amp; Activities</b>	<b>Due date</b>
1	Reading 1	7/22/2021
1	Reading 2	7/22/2021
2	Reading 3	8/2/2021

Incorrect table with merged cells

<b>Date</b>	<b>Student 1</b>		<b>Student 2</b>	
August 2, 2021	Result 1	Result 2	Result 1	Result 2
September 2, 2021				
October 2, 2021				

Correct table without merged cells

**Student 1**

<b>Date</b>	<b>Result 1</b>	<b>Result 2</b>
August 2, 2021		
September 2, 2021		
October 2, 2021		

**Student 2**

<b>Date</b>	<b>Result 1</b>	<b>Result 2</b>
August 2, 2021		
September 2, 2021		
October 2, 2021		

## Table Color

Avoid using color as the only means to convey information. For example, in the table below, the complete and incomplete items may appear the same to someone who is color blind:

20/20 vision:

Project	Due Date	Completed
Project 1	March 15, 2020	X
Project 2	April 15, 2020	X
Project 3	May 15, 2020	X

Color blind:

Project	Due Date	Completed
Project 1	March 15, 2020	X
Project 2	April 15, 2020	X
Project 3	May 15, 2020	X

A better option would be to provide another way of conveying information not just color alone and screen readers:

Project	Due Date	Completed
Project 1	March 15, 2020	N or No
Project 2	April 15, 2020	Y or Yes
Project 3	May 15, 2020	Y or Yes