



# 8<sup>th</sup> Grade

## Communicate with Friends



# Sample Draft

	B	C	D	E	F	G	H	I	J	K	
1	<b>What grade are you in?</b>	<b>Which of the following is your favorite way to communicate with your friends?</b>		<b>Communicating with Friends</b>							
2	6th	Through social media									
3	6th	Video Chatting		<b>Breakdown by Gender</b>							
4	6th	Video Chatting		Gender	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting		
5	6th	Through social media		Male	171	18		50			
6	6th	In person		Female	116		44		70		
7	6th	In person		<b>Breakdown by Grade</b>							
8	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting		
9	6th	Video Chatting		6th	72	10					
10	6th	In person		7th	95		29		44		
11	6th	Texting		8th	120			41			
12	6th	Texting		<b>Whole School Data Results</b>							
13	6th	In person			In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting		
14	6th	Texting		PHJH Students	287			96			
15	6th	In person									
16	6th	Through social media									
17	6th	In person									
18	6th	Through social media									
19	6th	In person									

# Accessing Document

The screenshot shows a Microsoft Teams interface. At the top, there are navigation tabs: 'Conversations', 'Files', 'Class Notebook', and 'Assignments'. The 'Assignments' tab is selected and underlined. An orange arrow points to this tab. Below the tabs, there is a 'Back' button on the left and a 'Turn in' button on the right. The main content area is titled 'Communicate with Friends'. It includes sections for 'Instructions' (with the text 'Use the direction booklet to help you.'), 'Reference materials' (with the text 'None'), and 'My work'. In the 'My work' section, there is a document titled 'communicatewithfriends.xls'. To the right of the document name is a three-dot menu icon. An orange arrow points to this menu icon. A context menu is open, showing options: 'Open in Teams', 'Open in Excel', 'Open in Excel Online', and 'Download'. An orange arrow points to the 'Open in Excel' option.

1. Sign in to Microsoft Teams
2. Login: [sID#@phsd144.net](mailto:sID#@phsd144.net)  
District Password
3. Click on ASSIGNMENTS
4. Click on COMMUNICATE WITH FRIENDS.
5. Click on  next to document in MY WORK
6. Select OPEN IN EXCEL.



# Formatting Data Tables

# Cells E1-J6

The screenshot shows the Microsoft Excel interface. The 'Home' tab is active, and the 'Merge & Center' button in the 'Text & Alignment' group is highlighted. A dropdown menu is open, showing options: Merge & Center, Merge & Center Across Cells, Merge Cells, and Unmerge Cells. The 'Merge & Center' option is selected. In the background, a table is visible with columns B and C. The title 'Communicating with Friends' is centered in a merged cell spanning from E1 to J1. The table data is as follows:

	B	C	F	G	H	I	J	K
1	What grade are you in?	Which of the following is your favorite way to communicate with your friends?	Communicating with Friends					
2	6th	Through social media						
3	6th	Video Chatting						
4	6th	Video Chatting						
5	6th	Through social media						
6	6th	In person						
7	6th	In person						
8	6th	In person						
9	6th	Video Chatting						
10	6th	In person						

1. Select E1-J1
2. Click on MERGE & CENTER.
3. Select MERGE & CENTER
4. Click on the MIDDLE ALIGN button.
  - Centers text vertically & horizontally.
5. Type the title in the box.
  - CALIBRI/SIZE 20/ BOLD.

# Cells E1-J6

Book1 - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Clipboard Font Alignment Number Styles

Calibri 14 A A Wrap Text Merge & Center General \$ % .00 .00 Conditional Formatting Format as Table Cell Styles Insert Del

E3 Breakdown by Gender

	C	D	E	F	G	H	I	J	K
1	Which of the following is your favorite way to communicate with your friends?		Communicating with Friends						
2	Through social media		Breakdown by Gender						
3	Video Chatting								
4	Video Chatting								
5	Through social media								
6	In person								
7	In person								
8	In person								
9	Video Chatting								
10	In person								
11	Texting								
12	Texting								

1. Select cells E2-J2.
2. Click on the SHADING button and select BLACK.
3. Select cells E3-J3.
4. Click on Merge & Center and select MERGE ACROSS.
5. Type BREAKDOWN BY GENDER in the box.
  - CALIBRI/SIZE 14/BOLD

# Cells E1-J6

The screenshot shows an Excel spreadsheet with the following content:

	C	D	E	F	G	H	I	J	K
1	<b>Which of the following is your favorite way to communicate with your friends?</b>		<b>Communicating with Friends</b>						
2	Through social media								
3	Video Chatting								
4	Video Chatting		<b>Breakdown by Gender</b>						
5	Through social media		<b>Gender</b>	<b>In Person</b>	<b>Talking on the Phone</b>	<b>Texting</b>	<b>Through Social Media</b>	<b>Video Chatting</b>	
6	In person								
7	In person								
8	In person								
9	Video Chatting								

Orange arrows point to the 'Wrap Text' button in the ribbon, the 'Middle Align' button, and the 'Video Chatting' cell in the breakdown table.

1. Enter the column titles for cells E4-J4.
  - ☐ CALIBRI/SIZE 11/BOLD
2. Select cells E4-J4.
3. Click on the WRAP TEXT button.
4. Click on the MIDDLE ALIGN button.
5. Resize the columns if necessary to make the titles look like the screenshot.

# Cells E1-J6

Book1 - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Clipboard Paste

Calibri A A

B I U

Wrap Text

General

Conditional Formatting

Format as Table

Cell Styles

Insert Delete Format

Alignment

Number

Styles

Cells

Communicating with Friends

	D	E	F	G	H	I	J	K
1	Which of the following is the best way to communicate with friends?	Communicating with Friends						
2	Through social media							
3	Video Chatting	Breakdown by Gender						
4	Video Chatting	Gender	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
5	Through social media	Male						
6	In person	Female						
7	In person							
8	In person							
9	Video Chatting							
10	In person							

1. Enter the row titles for cells E5 & E6.
  - CALIBRI/SIZE 11
2. Select cells E1-J6.
3. Click on the BORDERS button.
4. Select ALL BORDERS.

# Cells E7-J12

The screenshot shows an Excel spreadsheet with a survey question in column C and a data breakdown table in columns E-J. The survey question is "Which of the following is your favorite way to communicate with your friends?" and the responses are listed in column C. The data breakdown table is titled "Communicating with Friends" and is divided into two sections: "Breakdown by Gender" and "Breakdown by Grade". The "Breakdown by Gender" section has columns for Gender, In Person, Talking on the Phone, Texting, Through Social Media, and Video Chatting. The "Breakdown by Grade" section has columns for Grade, In Person, Talking on the Phone, Texting, Through Social Media, and Video Chatting. An orange arrow points from the survey question to the data breakdown table. The data breakdown table is highlighted with an orange border.

Communicating with Friends						
Breakdown by Gender						
Gender	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
Male						
Female						
Breakdown by Grade						
Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
6th						
7th						
8th						

**Recreate this table (Cells E7-J12).**

Use slides 5 – 8 for reference if needed.

# Cells E13-J16

The screenshot shows the Microsoft Excel interface with the following data tables:

Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting
6th					
7th					
8th					

  

	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting
PHJH Students					

**Hint: Use the WRAP TEXT button for cell E16.**

**Recreate this table (Cells E13-J16).**

Use slides 5 – 8 for reference if needed.



# Filtering Raw Data



	A	B	C	D	E	F	G	H	I	J
	<b>What is your gender?</b>	<b>What grade are you in?</b>	<b>Which of the following is your favorite way to communicate with your friends?</b>		<b>Communicating with Friends</b>					
1										
2	Female	6th	Through social media							
3	Female	6th	Video Chatting							
4	Female	6th	Video Chatting							
5	Female	6th	Through social media							
6	Female	6th	In person							
7	Female	6th	In person							

  

<b>Breakdown by Gender</b>					
Gender	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting
Male	171				
Female					

1. In cell F5 type the COUNTIFS formula

=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "IN PERSON")

2. Hit ENTER

Number in cell F5 should be 171

171 males responded "in person" to this statement.

### COUNTIFS Formula:

Counts the number of entries in the selected ranges that have that combination of responses.

Use the \$ sign in formulas so that the cell range(s) won't change with the formula is copied to other cells.

# Cells F5-J6

	A	B	C	D	E	F	G	H	I	J	K
4	Female	6th	Video Chatting		Gender	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
5	Female	6th	Through social media		Male	171	171	171	171	171	
6	Female	6th	In person		Female	171	171	171	171	171	
7	Female	6th	In person		<b>Breakdown by Grade</b>						
8	Female	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
9	Female	6th	Video Chatting		6th						
10	Female	6th	In person		7th						
11	Female	6th	Texting								

1. Hold the cursor over the bottom right corner of cell F5 until see a + sign.
2. Click & drag to cell J5 to copy formula to cells G5-J5.
3. Repeat step 1 for cell J5.
4. Click & drag down to cell J6 to copy the formula to cells F6-J6.
  - ☐ The number in all cells should be 171.

# Cells F5-J6

The screenshot shows the Microsoft Excel interface. The formula bar for cell J6 contains the formula: `=COUNTIFS($A$2:$A$629, "FEMALE", $C$2:$C$629, "VIDEO CHATTING")`. The ribbon includes options for Clipboard, Font, Alignment, Number, Styles, and Cells. The data table below has the following structure:

	A	B	C	D	E	F	G	H	I	J	K	
4	Female	6th	Video Chatting		<b>Gender</b>	<b>In Person</b>	<b>Talking on the Phone</b>	<b>Texting</b>	<b>Through Social Media</b>	<b>Video Chatting</b>		
5	Female	6th	Through social media		Male	171	18		50			
6	Female	6th	In person		Female	116		44		70		
7	Female	6th	In person		<b>Breakdown by Grade</b>							
8	Female	6th	In person		<b>Grade</b>	<b>In Person</b>	<b>Talking on</b>	<b>Texting</b>	<b>Through Social</b>	<b>Video</b>		

Edit equations for cells G5-J5 and F6-J6. The changes should reflect the different row and column titles for each cell.

Use the chart on slide 15 to check your edited formulas.

# Cells F5-J6

<b>F5</b>	=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "IN PERSON")
<b>F6</b>	=COUNTIFS(\$A\$2:\$A\$629, "FEMALE", \$C\$2:\$C\$629, "IN PERSON")
<b>G5</b>	=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "TALKING ON THE PHONE")
<b>G6</b>	=COUNTIFS(\$A\$2:\$A\$629, "FEMALE", \$C\$2:\$C\$629, "TALKING ON THE PHONE")
<b>H5</b>	=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "TEXTING")
<b>H6</b>	=COUNTIFS(\$A\$2:\$A\$629, "FEMALE", \$C\$2:\$C\$629, "TEXTING")
<b>I5</b>	=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "THROUGH SOCIAL MEDIA")
<b>I6</b>	=COUNTIFS(\$A\$2:\$A\$629, "FEMALE", \$C\$2:\$C\$629, "THROUGH SOCIAL MEDIA")
<b>J5</b>	=COUNTIFS(\$A\$2:\$A\$629, "MALE", \$C\$2:\$C\$629, "VIDEO CHATTING")
<b>J6</b>	=COUNTIFS(\$A\$2:\$A\$629, "FEMALE", \$C\$2:\$C\$629, "VIDEO CHATTING")

# Cell F10

	A	B	C	D	E	F	G	H	I	J	K
6	Female	6th	In person		Female	116		44		70	
7	Female	6th	In person								
8	Female	6th	In person								
9	Female	6th	Video Chatting		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
10	Female	6th	In person		6th	72					
11	Female	6th	Texting		7th						
12	Female	6th	Texting		8th						
13	Female	6th	In person								
14	Female	6th	Texting								

1. In cell F10 type the COUNTIFS formula

=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "IN PERSON")

2. Hit ENTER

Number in cell F5 should be 72

72 6<sup>TH</sup> graders responded "in person" to this statement.

## COUNTIFS Formula:

Counts the number of entries in the selected ranges that have that combination of responses.

Use the \$ sign in formulas so that the cell range(s) won't change with the formula is copied to other cells.

# Cells F10-J12

8th Excel 3 Working Copy (1) - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Clipboard Font Alignment Number Styles Cells

F10 =COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "IN PERSON")

	A	B	C	D	E	F	G	H	I	J	K
6	Female	6th	In person		Female	116		44		70	
7	Female	6th	In person		<b>Breakdown by Grade</b>						
8	Female	6th	In person		<b>Grade</b>	<b>In Person</b>	<b>Talking on the Phone</b>	<b>Texting</b>	<b>Through Social Media</b>	<b>Video Chatting</b>	
9	Female	6th	Video Chatting		6th	72	72	72	72	72	
10	Female	6th	In person		7th	72	72	72	72	72	
11	Female	6th	Texting		8th	72	72	72	72	72	
12	Female	6th	Texting		<b>Whole School Data Results</b>						
13	Female	6th	In person		<b>In Person</b>	<b>Talking on the Phone</b>	<b>Texting</b>	<b>Through Social Media</b>	<b>Video Chatting</b>		
14	Female	6th	Texting								
15	Female	6th	In person								

1. Hold the cursor over the bottom right corner of cell F10 until see a + sign.
2. Click & drag to cell J10 to copy formula to cells G10-J10.
3. Repeat step 1 for cell J10.
4. Click & drag down to cell J12 to copy the formula to cells F11-J12.
  - ❑ The number in all cells should be 72.

# Cells F10-J12



	A	B	C	D	E	F	G	H	I	J	K
6	Female	6th	In person		Female	116		44		70	
7	Female	6th	In person		Breakdown by Grade						
8	Female	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
9	Female	6th	Video Chatting		6th	72	10				
10	Female	6th	In person		7th	95		29		44	
11	Female	6th	Texting		8th	120			41		
12	Female	6th	Texting		Whole School Data Results						
13	Female	6th	In person								
14	Female	6th	Texting								

Formula bar: =COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "VIDEO CHATTING")



Edit equations for cells G10 – J10, F11 – J11, & F12 – J12. The changes should reflect the different row and column titles for each cell.

- Use the chart on slide 19 to check your edited formulas.

# Cells F10-J12

<b>F10</b>	=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "IN PERSON")
<b>F11</b>	=COUNTIFS(\$B\$2:\$B\$629, "7TH", \$C\$2:\$C\$629, "IN PERSON")
<b>F12</b>	=COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "IN PERSON")
<b>G10</b>	=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "TALKING ON THE PHONE")
<b>G11</b>	=COUNTIFS(\$B\$2:\$B\$629, "7TH", \$C\$2:\$C\$629, "TALKING ON THE PHONE")
<b>G12</b>	=COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "TALKING ON THE PHONE")
<b>H10</b>	=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "TEXTING")
<b>H11</b>	=COUNTIFS(\$B\$2:\$B\$629, "7TH", \$C\$2:\$C\$629, "TEXTING")
<b>H12</b>	=COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "TEXTING")
<b>I10</b>	=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "THROUGH SOCIAL MEDIA")
<b>I11</b>	=COUNTIFS(\$B\$2:\$B\$629, "7TH", \$C\$2:\$C\$629, "THROUGH SOCIAL MEDIA")
<b>I12</b>	=COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "THROUGH SOCIAL MEDIA")
<b>J10</b>	=COUNTIFS(\$B\$2:\$B\$629, "6TH", \$C\$2:\$C\$629, "VIDEO CHATTING")
<b>J11</b>	=COUNTIFS(\$B\$2:\$B\$629, "7TH", \$C\$2:\$C\$629, "VIDEO CHATTING")
<b>J12</b>	=COUNTIFS(\$B\$2:\$B\$629, "8TH", \$C\$2:\$C\$629, "VIDEO CHATTING")



# Total Sum Table

# Cells F16-J16



	A	B	C	D	E	F	G	H	I	J	K
7	Female	6th	In person		<b>Breakdown by Grade</b>						
8	Female	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
9	Female	6th	Video Chatting		6th	72	10				
10	Female	6th	In person		7th	95		29		44	
11	Female	6th	Texting		8th	120				41	
12	Female	6th	Texting		<b>Whole School Data Results</b>						
13	Female	6th	In person			In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting	
14	Female	6th	Texting		PHJH						
15	Female	6th	In person		Students	=SUM(F10:F12)					
16	Female	6th	Through social media								
17	Female	6th	In person								
18	Female	6th	Through social media								

1. In cell J16 type the SUM EQUATION  
 =SUM(select cells F10 – F12)
2. Hit ENTER  
 Number in cell J16 should be 287.

Total # students that responded "In Person."

F10-F12 = F10+F11+F12

# Cells F16-J16



F16		=SUM(F10:F12)											
	A	B	C	D	E	F	G	H	I	J	K	L	
7	Female	6th	In person		<b>Breakdown by Grade</b>								
8	Female	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting			
9	Female	6th	Video Chatting		6th	72	10						
10	Female	6th	In person		7th	95		29		44			
11	Female	6th	Texting		8th	120				41			
12	Female	6th	Texting		<b>Whole School Data Results</b>								
13	Female	6th	In person			In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting			
14	Female	6th	Texting		PHJH Students	287				96			
15	Female	6th	In person										
16	Female	6th	Through social media										
17	Female	6th	In person										
18	Female	6th	Through social media										



1. Hold the cursor over the bottom right corner of cell F16 until see a + sign.
2. Click & drag to cell J16 to copy formula to cells G16-J16.
3. Use the table below to double check the formulas for cells G16-J16.

<b>G16</b>	=SUM(G10:G12)	<b>H16</b>	=SUM(H10:H12)
<b>I16</b>	=SUM(I10:I12)	<b>J16</b>	=SUM(J10:J12)



# Saving Spreadsheet

# SAVE TO ONE DRIVE



The screenshot shows the Microsoft Excel interface. The title bar reads "8th Excel 3 Working Copy (1) - Excel". The ribbon includes File, Home, Insert, Page Layout, Formulas, Data, Review, and View. The Home ribbon is active, showing options for Clipboard, Font, Alignment, Number, and Styles. The formula bar shows the formula `=SUM(F10:F12)` for cell F16. The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I	J
7	Female	6th	In person		<b>Breakdown by Grade</b>					
8	Female	6th	In person		Grade	In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting
9	Female	6th	Video Chatting		6th	72	10			
10	Female	6th	In person		7th	95		29		44
11	Female	6th	Texting		8th	120			41	
12	Female	6th	Texting		<b>Whole School Data Results</b>					
13	Female	6th	In person			In Person	Talking on the Phone	Texting	Through Social Media	Video Chatting
14	Female	6th	Texting		PHJH Students	287			96	
15	Female	6th	In person							
16	Female	6th	Through social media							
17	Female	6th	In person							
18	Female	6th	Through social media							



**Click on DISK ICON to save your spreadsheet to OneDrive**



# Turning In Assignment

# TURN IN ASSIGNMENT

The screenshot shows a user interface for an assignment. At the top, there are navigation tabs: 'Conversations', 'Files', 'Class Notebook', and 'Assignments'. The 'Assignments' tab is active. In the top right corner, there are icons for a share link and a refresh button. Below the navigation, there is a 'Back' button on the left and a 'Turn in' button on the right, with a large orange arrow pointing to it. The main content area is titled 'Communicate with Friends'. It includes a 'Due Date' section with a calendar icon, showing 'Thu May 30, 2019 at 11:59 PM'. Below that is a 'Points' section with a checkmark icon, showing '50 points possible'. There are sections for 'Instructions' (text: 'Use the direction booklet to help you.'), 'Reference materials' (text: 'None'), and 'My work'. Under 'My work', there is a file named 'communicatewithfriends.xls' with a green Excel icon and a three-dot menu. Below the file list is a '+ Add work' button. A large orange arrow points to the 'communicatewithfriends.xls' file.

1. Verify that your document is under MY WORK.
2. Click on TURN IN.