LEARN -BY- DOING

Google
Apps 3E

Hands-on Lessons and Assessments

Step-by-Step
Lessons for Learning
Google:

Drive

Gmail

Docs

Sheets

Slides

Forms

Sites

Meet

Drawings

B.E. PUBLISHING

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Getting Started with Google Drive

Managing and Organizing Your Files

Overview

Google Drive is a cloud-storage service which allows you to store your files and access them from any computer or device with an Internet connection. Google Drive also allows you to create, share, and manage files, as well as collaborate with others while using its productivity apps, which include Docs, Sheets, Slides, Forms, Drawings, Meet, and Sites.

In this lesson, you will create folders to organize your files as you complete each lesson in this text.

New Skills

Accessing Google Drive • Creating a Folder • Renaming a Folder • Changing Folder Color • Changing View • Creating a File • Renaming a File • Closing a File • Moving a File • Moving a Folder

Instructions

1. **Access Google Drive.** To access Google Drive, sign into your **Google account**, click the **Google apps** (waffle) icon, then select **Drive**.
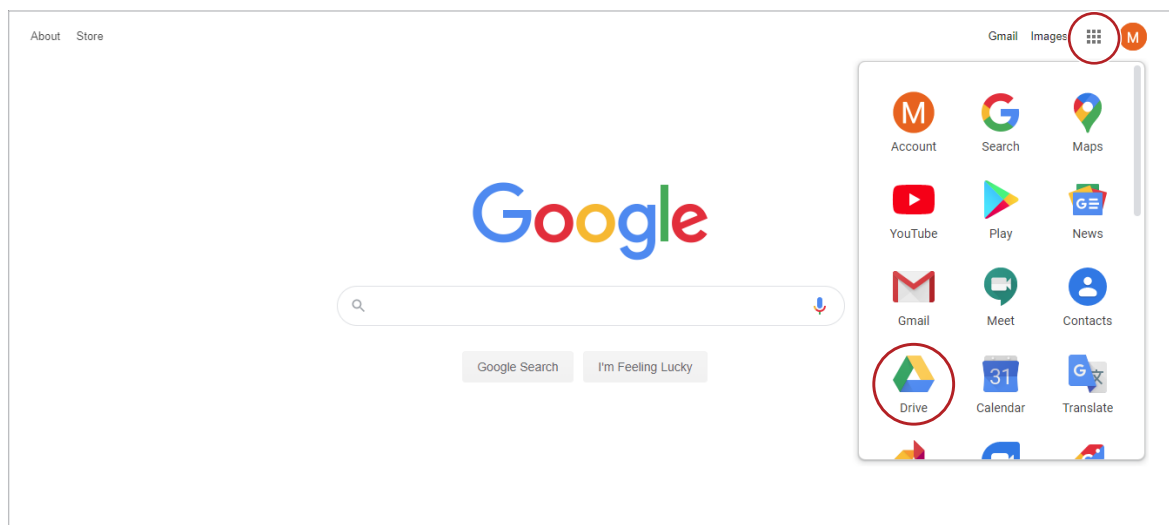

Note: *Your Google Drive may or may not be empty; however, this is where you will view, manage, and organize your files.*

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2. **Create a Folder.** To create a folder in which to keep your files organized, do the following:

   a. From the left navigation menu, select **New**, then select **Folder**.
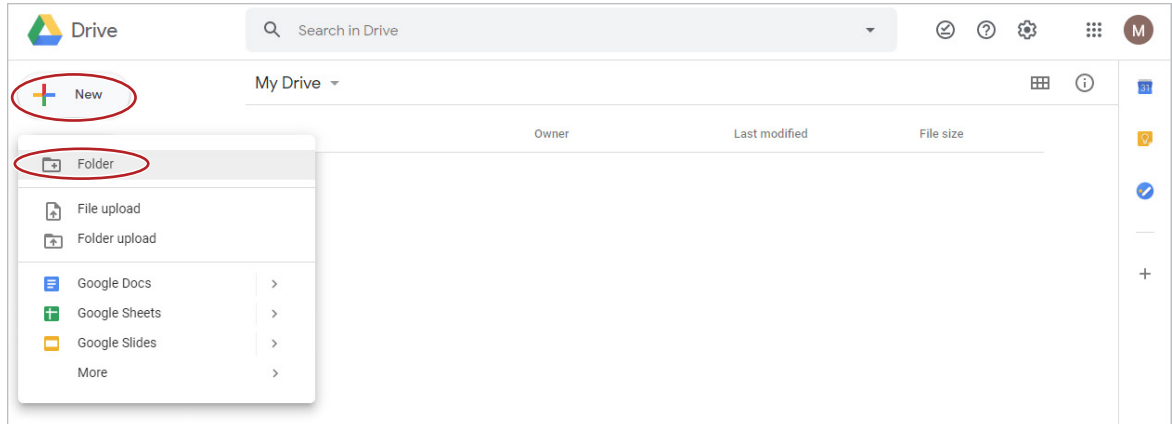
   b. In the **New folder** dialog box, type [My Google Documents], then click **CREATE**.
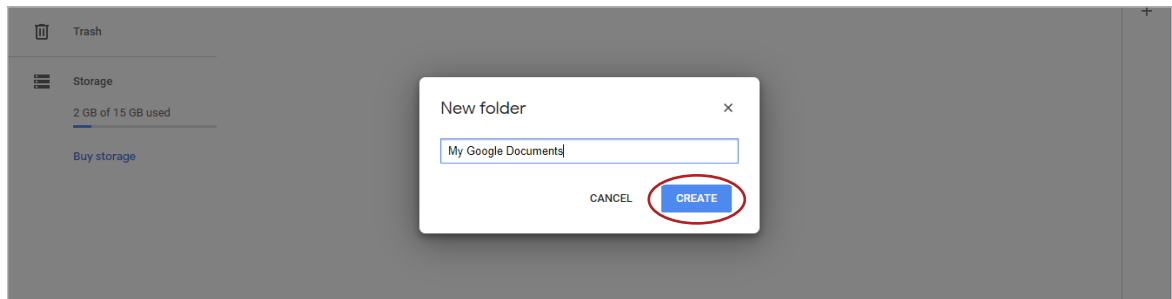
3. **Rename a Folder.** To rename a folder, click the **My Google Documents** folder, click the **More actions** icon, select **Rename**, then edit the folder name to [My Docs], and click OK.
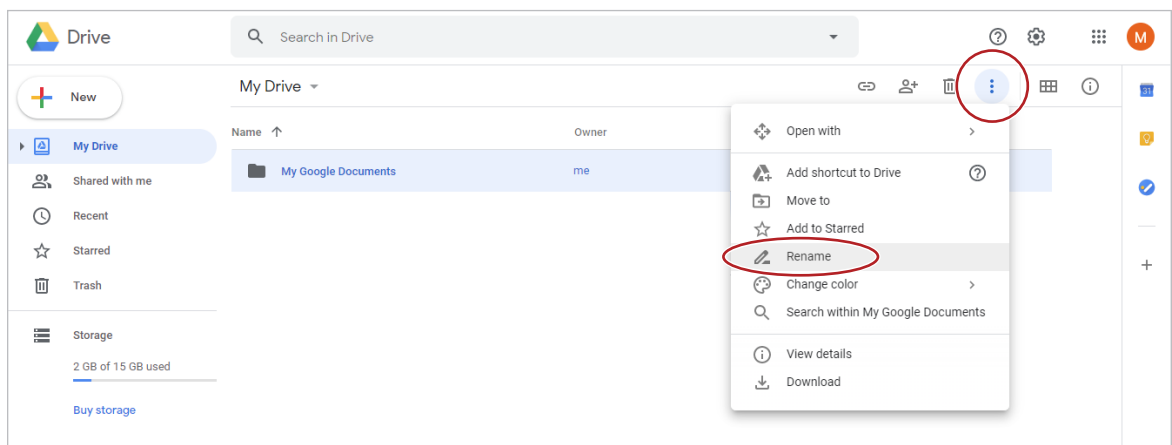
4. Create six additional folders and name them as follows: [My Projects], [My Sheets], [My Forms], [My Slides], [My Drawings], and [My Sites].

   Note: Throughout the lessons, you will be required to type text that is shown in brackets. Do not type the brackets.

5. **Change Folder Color.** To make folders easily identifiable by color, click the **My Docs** folder, click the **More actions** icon, select **Change color**, then select **Rainy sky**.
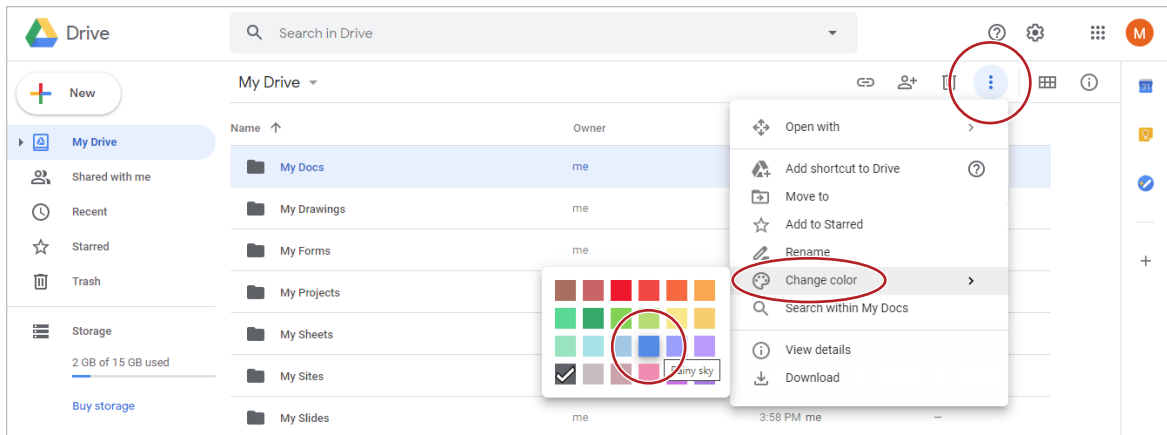

6. Change the color of your other folders as follows:

   My Projects – Vern fern   My Forms – Toy eggplant

   My Sheets – Asparagus   My Sites – Denim

   My Slides – Macaroni   My Drawings – Cardinal

7. **Change View.** To change the way your folders and files are displayed, click the icon that allows you to switch between a list of your folders or a grid view of folder thumbnails. Depending on your current setting, the icon will either be called **List view** or **Grid view**. Try each view, then change the view to **List**.
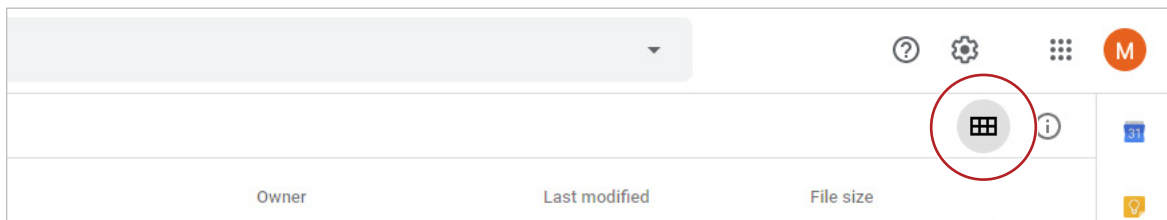
8. **Create a File.** To create a file using one of the productivity apps (Docs, Sheets, Slides, Forms, Drawings, or Sites), click **New**, select the **Google Docs** arrow, then select **Blank document**.
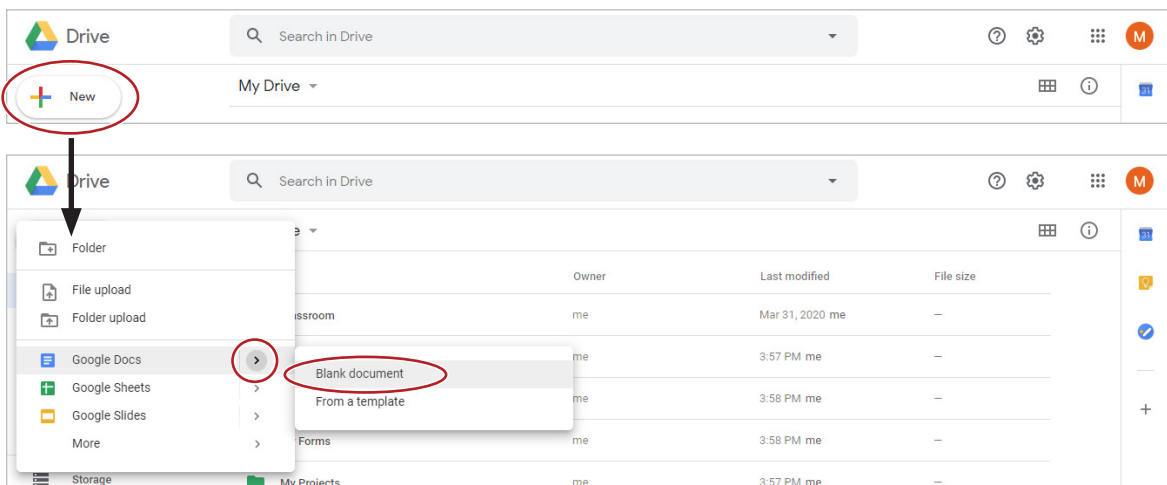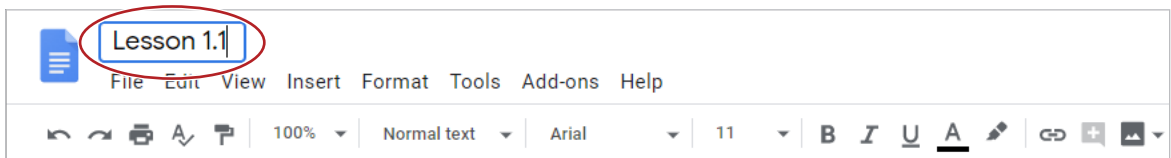
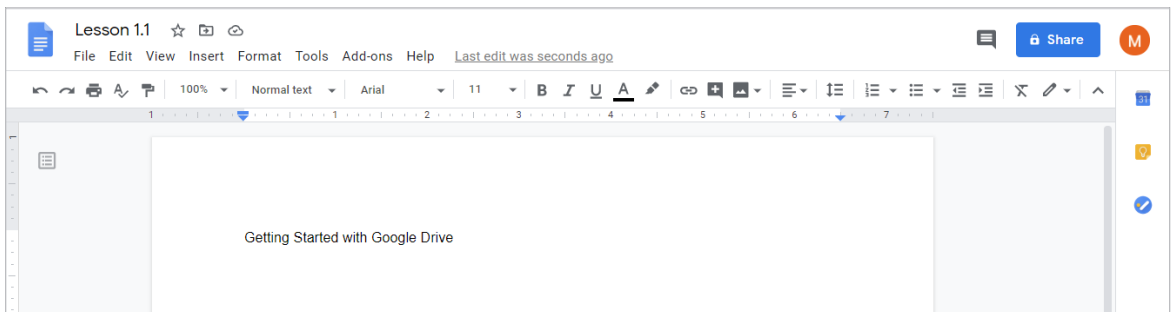**9.** To easily navigate between your Drive and your document, notice that they appear in separate tabs.
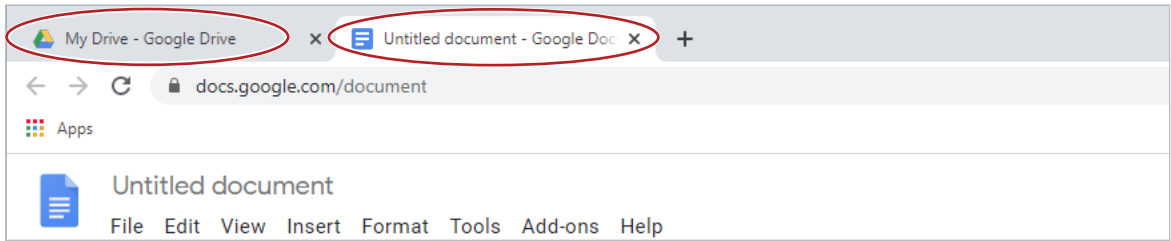
Note: Depending on the browser being used, your tabs may look different.

10. Rename a File. To give your file a name, click **Untitled document**, then type [**Lesson 1.1**] and hit Enter.

11. On the first line of your document, type [Getting Started with Google Drive].

12. In most applications, saving a file is an important step so that you can retrieve it at any time. Google Drive automatically saves your files as you are working.
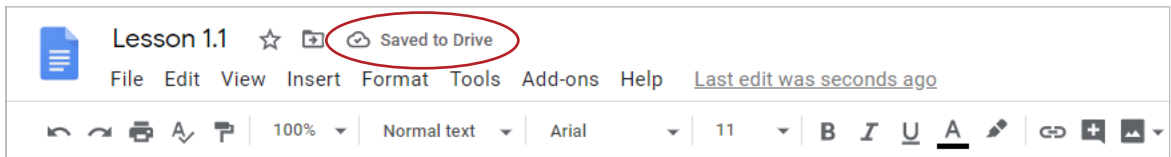
13. Close a File. To close your document, click the **X** on the document tab.
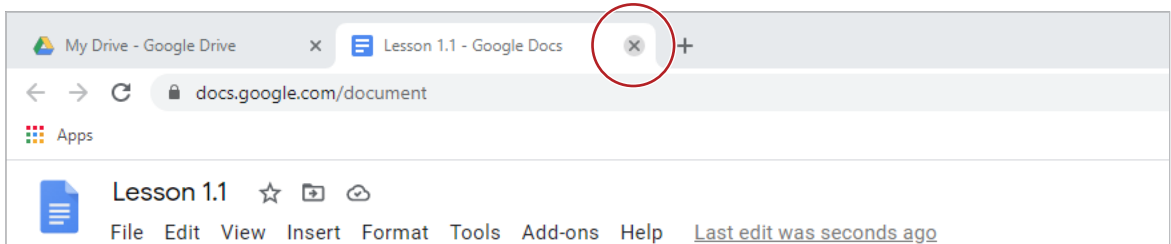
14. You should now see the document in your Drive.
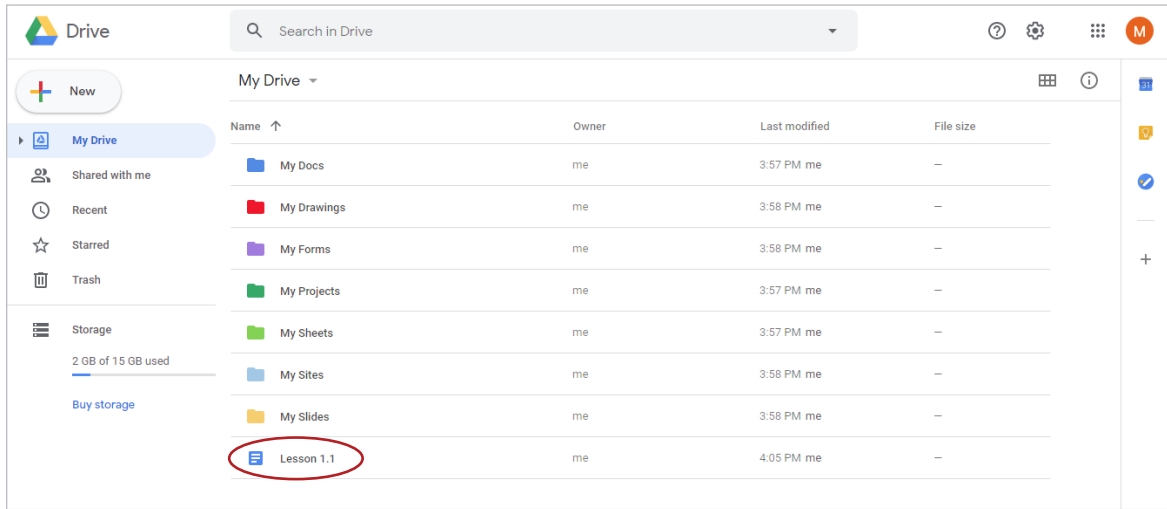
15. Move a File. To move a file into an existing folder, click and drag your **Lesson 1.1** document into your My Docs folder.
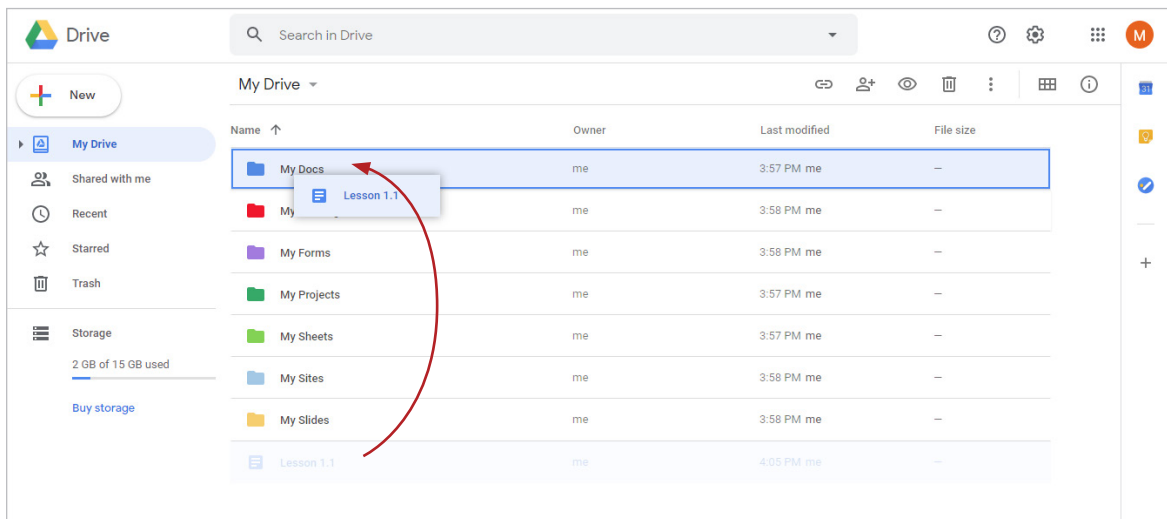
Note: You should now see the document in your My Docs folder.

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16. **Move a Folder.** To move a folder into an existing folder, click and drag the My Docs folder into the My Projects folder.
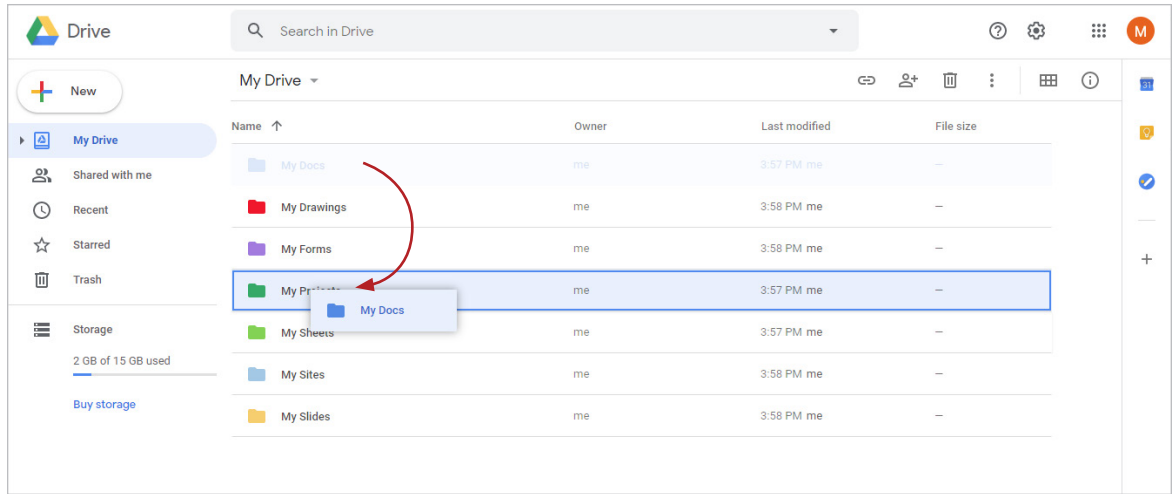
17. Move the remaining folders into the My Projects folder.

Note: *You should now see all folders created in this lesson in the My Projects folder.*

Summer Memories

Communicating with Multiple Recipients

Overview

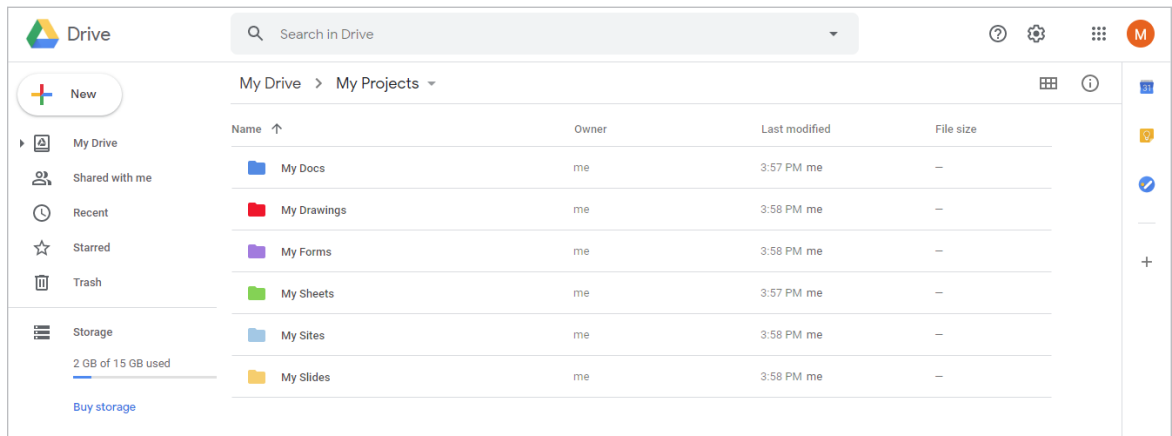An email contains a To field as well as two courtesy fields, similar to a memo. Recipients in the Cc (or carbon copy) field are people who should be informed of the conversation, but are not the recipient of the email. Bcc (or blind carbon copy) recipients will receive the message, but other recipients will not see their name or email. Use this address field when you want to hide email addresses from other recipients. Attaching images to messages allows any receiving user to view, open, or download the file for their own use.

In order to complete this lesson, access to a lesson resource file is required and should be provided by your instructor.

In this lesson, you will reply to all recipients of an email and attach an image to your message.

New Skills

Using Reply All • Using Cc and Bcc • Muting a Conversation • Inserting Images

Instructions

1. In order to complete this lesson, you must be assigned a partner with whom you will collaborate. Your teacher will also provide a third student's email address for you to use in this lesson.

2. In Gmail, compose a new email to your partner. In the New Message dialog box, type the email address of your partner in the To field, and [Vacation Photos] in the Subject field.

3. In the body of the email, type the following:

Dear [Student Name],

I found a great picture of us from our summer vacation trip to Cocoa Beach, Florida. This one shows the two of us having such a great time! I hope you love it.
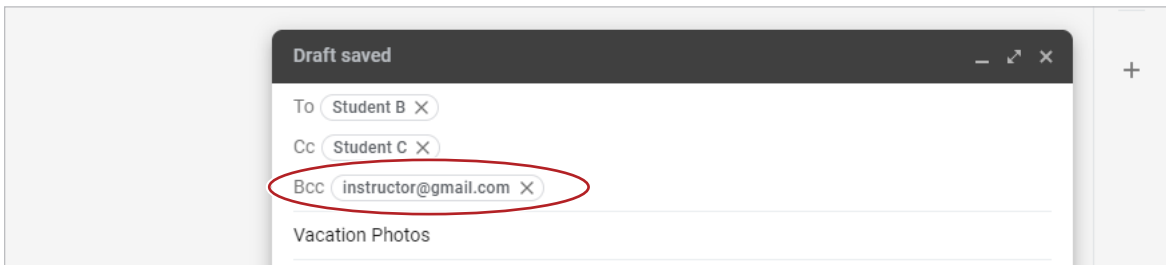
See you soon,

[Your Name]

4. **Use Cc.** To **Cc** another address on the email, click **Cc**, then type the email address of the third student in the field that appears.
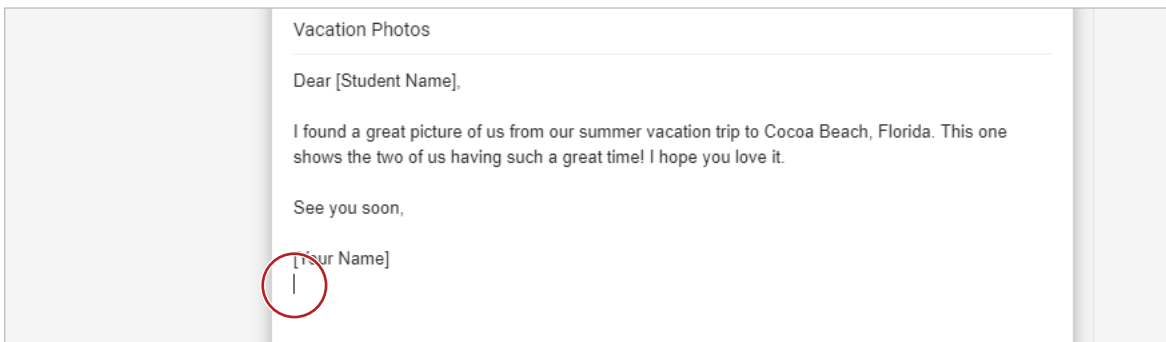

5. **Use Bcc.** To **Bcc** another address on the email, click **Bcc**, then type your teacher's email address in the field that appears.
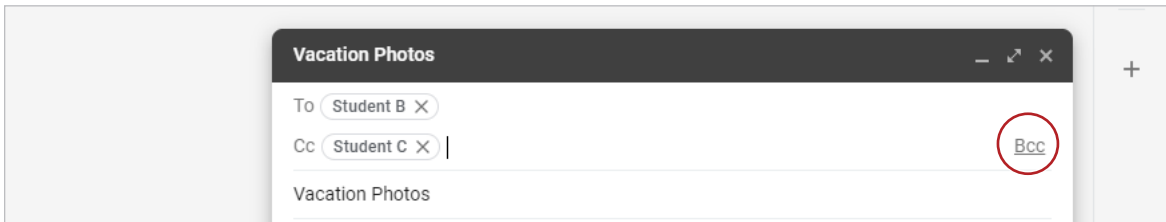
6. **Insert an Image.** To insert an image from your hard drive or network drive in the body of the email, do the following:

   a. Position your cursor just below your name in the complimentary close.

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b. Click the **Insert photo** icon.
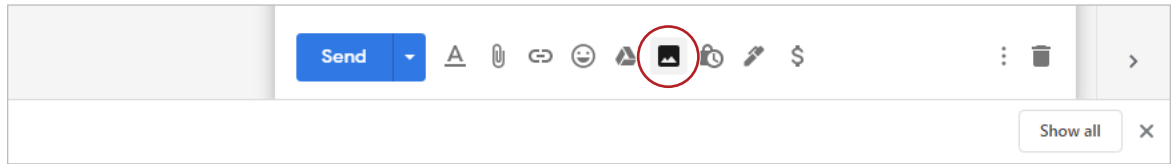
c. Click **Select files from your device**, then locate the image **Vacation2.jpg** and click **Open**.
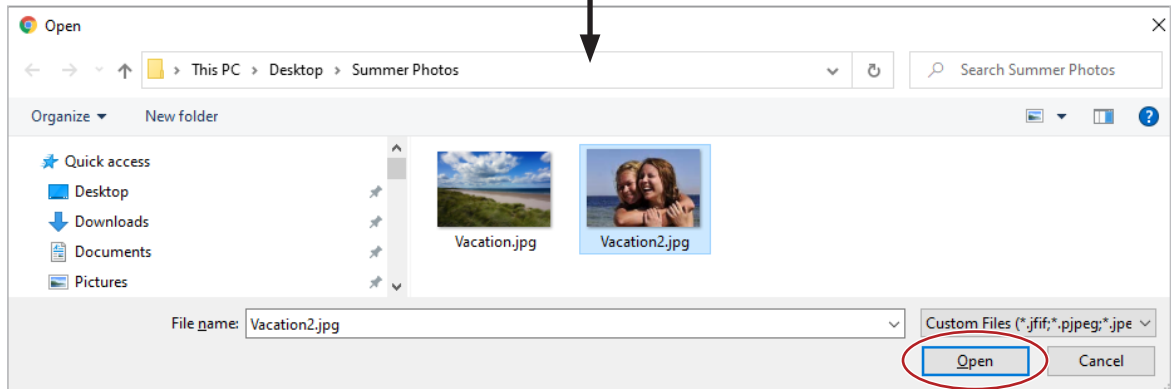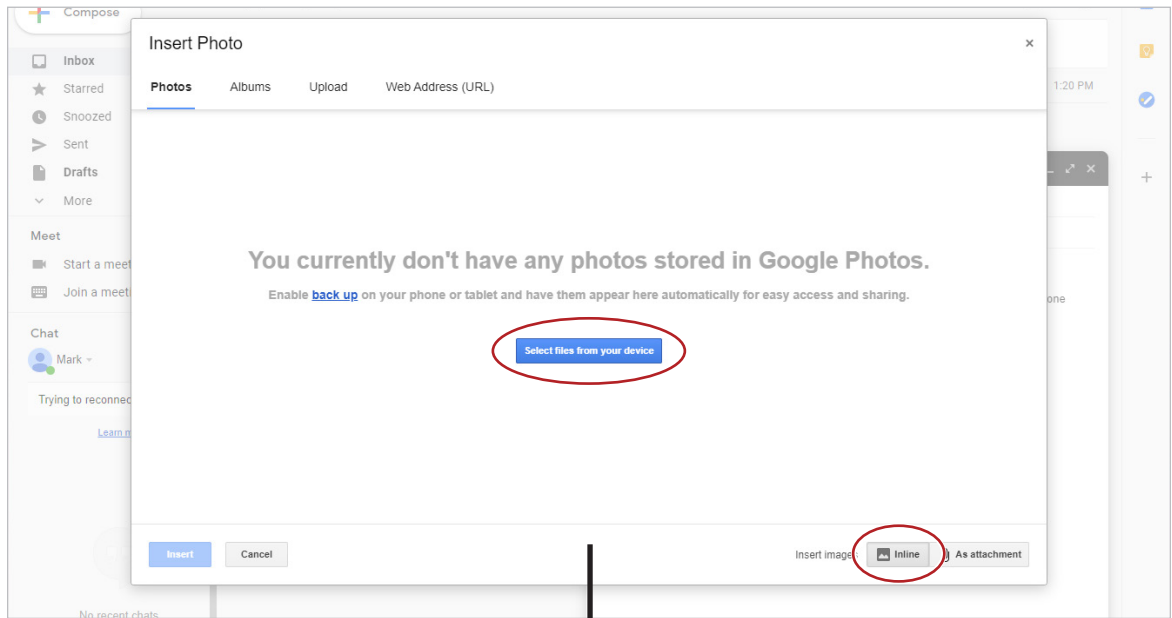
Note: You can also select Upload to add an image from your computer.

Note: Be sure that Inline is selected so that your image will appear within the body of the message.

7. Send the email.

8. Open the email [Vacation Photos] that your partner sent to you.

9. **Reply to All.** To reply to all recipients of an email, click the **More actions** menu and select **Reply to all**.
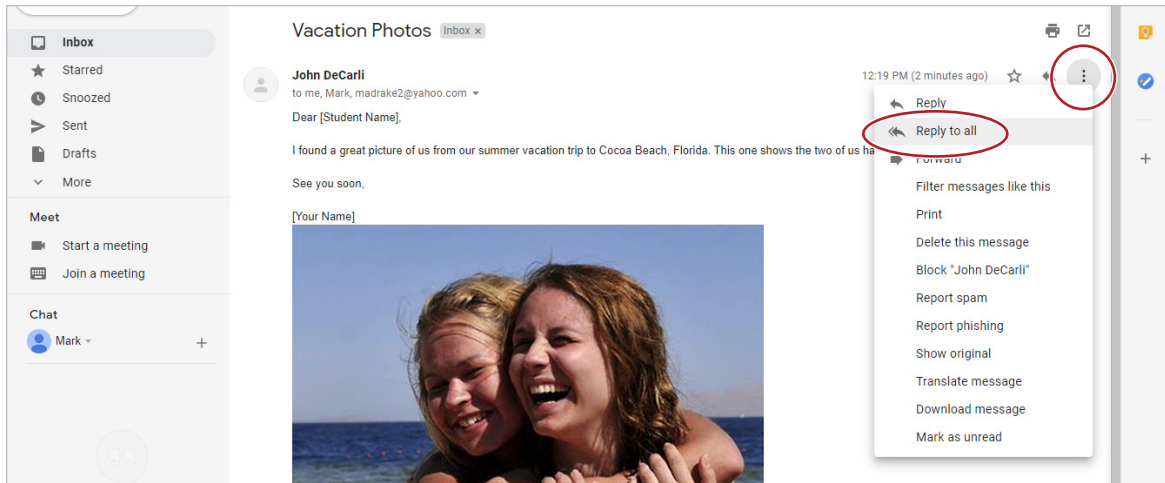
10. In the body of your email reply, type the following, then send the email:

> Dear [Student Name],
>
> Thank you for sending me this picture. It brings back so many great memories.
>
> Talk to you later,
>
> [Your Name]

11. Open and read any other messages that you have been Cc'd on.

12. **Mute a Conversation.** To mute a conversation so that you are not alerted to future replies, check the box next to the conversations that you have been Cc'd on, then from the **More actions** menu, select **Mute**.

U.S. Presidents

Working with Tables and Links

Overview

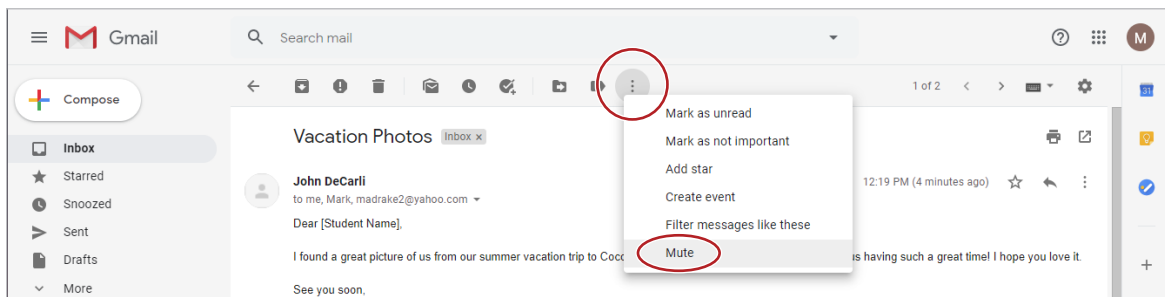An excellent way of organizing information in your document is by using a table. A table is a graphic element made up of columns and rows which intersect to form cells. When working with information in a table, it's often necessary to make sure the formatting of all text is consistent. You can create uniformity in your document by using the Paint format tool, which can help you to easily apply the same format to different selections of text.
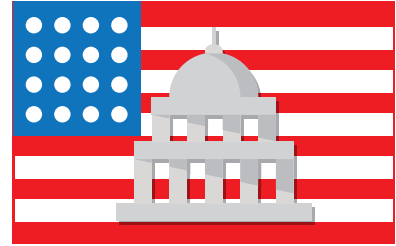
In this lesson, you will insert a table that contains images and links about the first ten presidents of the United States.

New Skills

Inserting a Table • Deleting a Table • Using Paint Format • Copying an Image • Inserting a Link • Inserting a Footer

Instructions

1. In your My Docs folder, create a new document and rename it **Lesson 3.5**.

2. On the first line of your document, type the text [First Ten U.S. Presidents], then hit Enter.

3. **Insert a Table.** Below the text, insert a table to organize information in columns and rows. From the **Insert** menu, select **Table** with **3 columns and 11 rows**.
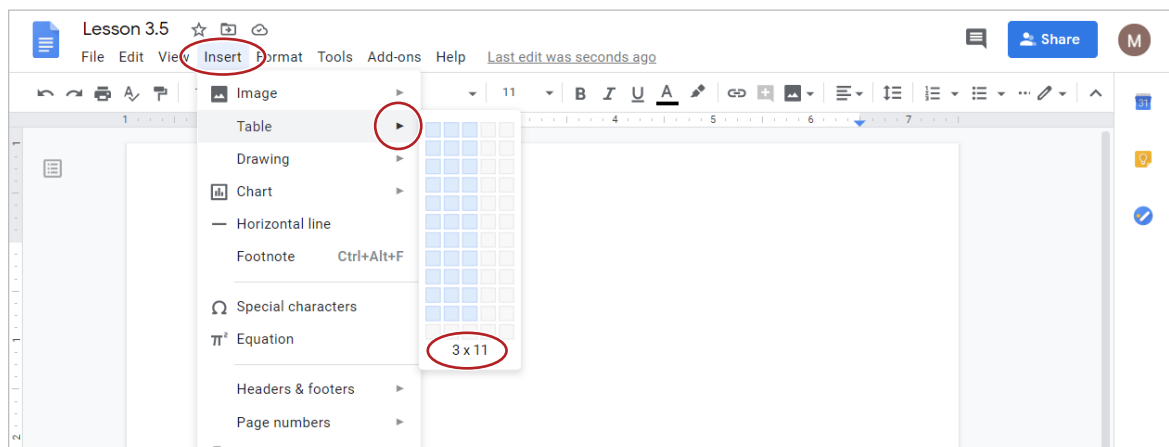
4. Using the Tab key to move from cell to cell, type the text as shown in *3.5 Figure A*.

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5. Select row 1 by clicking and dragging across all the cells in that row.

Note: The selected row will turn blue.

First Ten U.S. Presidents

President	Image	Link
George Washington		
John Adams		

6. Center align, bold, and change the font size of the text in row 1 to 14.

7. Center align, bold, and change the font size of the title [First Ten U.S. Presidents] to 24.

8. Delete a Table. To delete a table, do the following:

a. Position your cursor anywhere in the table.

b. From the **Format** menu, select **Table** and select **Delete table**.

9. Undo your last action to bring the table back.

10. Bold [George Washington] in column 1.

11. Use Paint Format. To replicate the formatting of selected text to other text in a document, do the following:

a. Select [George Washington] and click the **Paint format** icon.

b. Select the text in the remaining nine cells in column 1.

Note: All text in column 1 should now be bold.

12. To find images and information about the Presidents, open a **New tab** in your browser and go to **www.britannica.com/topic/Presidents-of-the-United-States-1846696** (or a similar website).
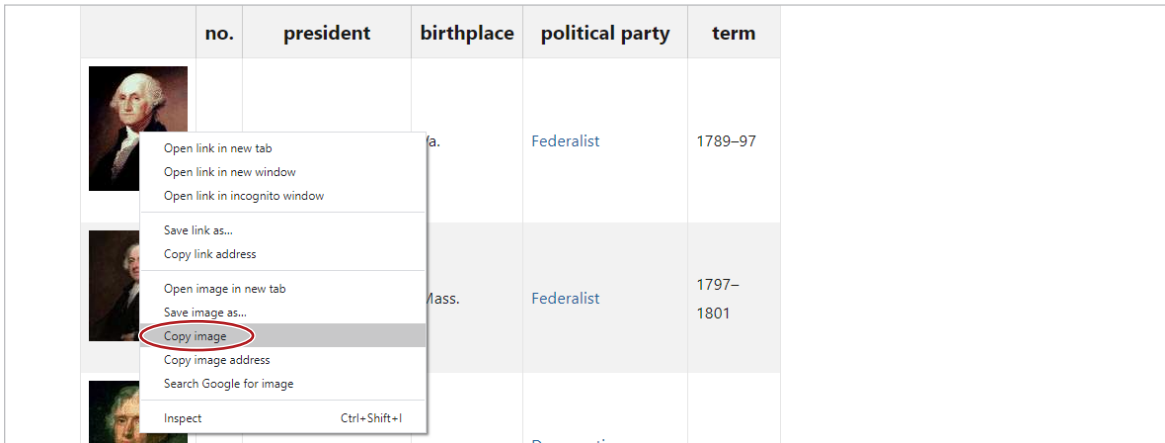

13. Copy an Image. To copy an image into a table, do the following:

a. Scroll to find George Washington's picture.

	no.	president	birthplace	political party	term
	1	George Washington	Va.	Federalist	1789–97

b. Right-click the image of George Washington, then select **Copy image**.

c. To return to the **Lesson 3.5** document, click the **Lesson 3.5** tab at the top of your screen.

d. To place the image in the appropriate cell (see *3.5 Figure B, Page 1*), right-click in the cell, then select **Paste**.
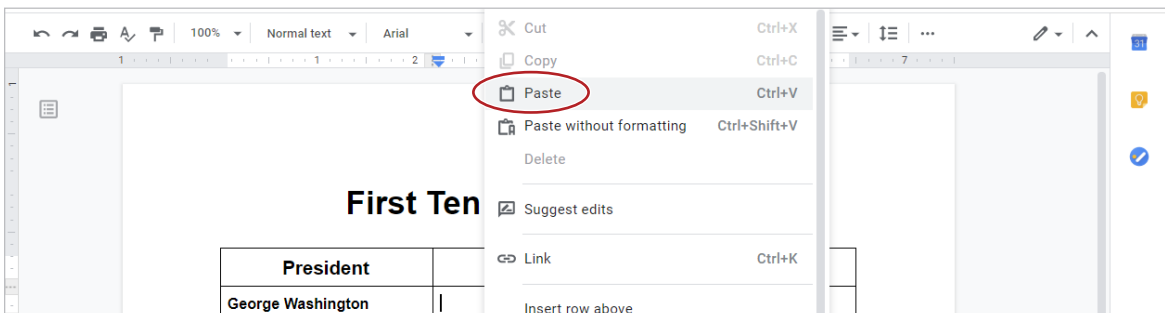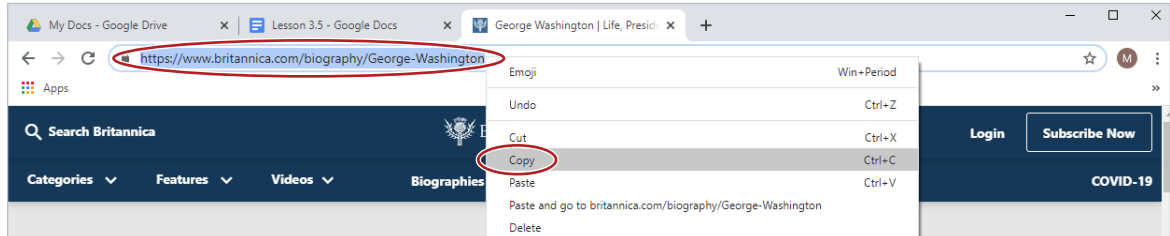

Hint: Alternatively, use Ctrl+V.

14. Insert a Link. To insert a hyperlink into a table so that you can easily navigate to different webpages, do the following:

    a. Click on the tab with information about the Presidents, then click George Washington's name to be brought to his biography webpage.

    b. Select the URL, right-click, then select **Copy**.

    c. To place the link in the appropriate cell (see *3.5 Figure B, Page 1*), return to the **Lesson 3.5** document, click in the cell, then from the **Insert** menu, select **Link**.
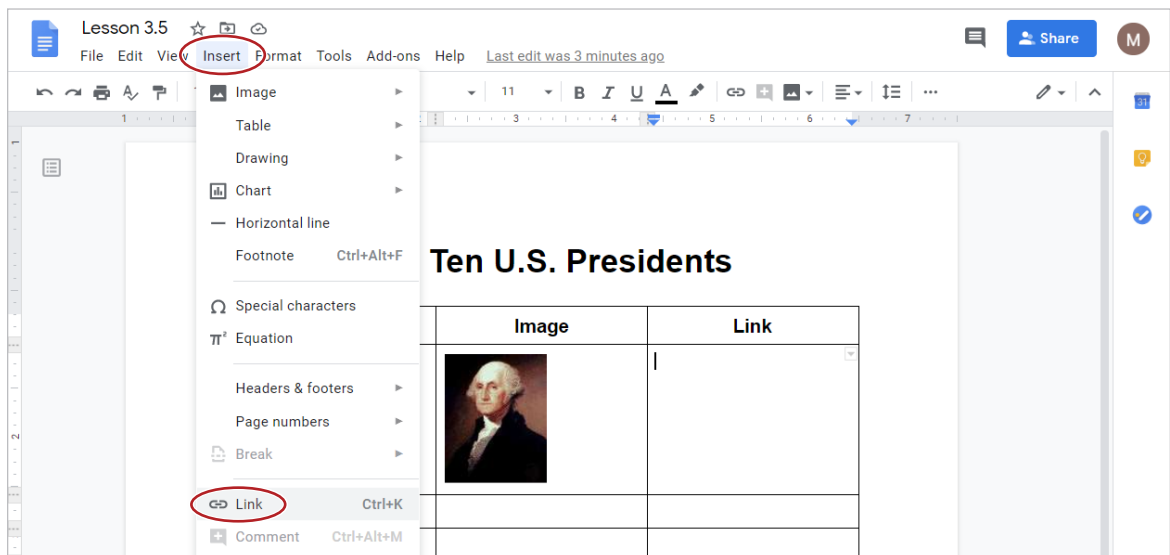
    d. In the **Link** dialog box, type [Biography] into the **Text** field, paste the link into the **Link** field, then click **Apply**.
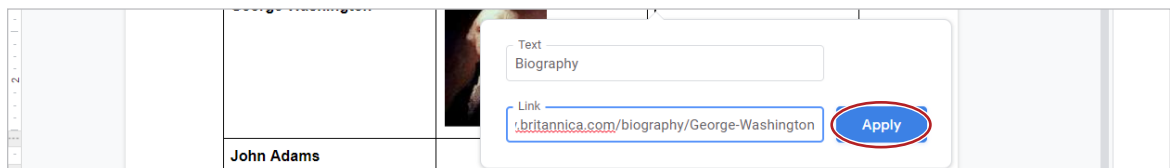
15. To return to the Presidents webpage, click on the tab for George Washington's biography webpage, then click the **Back** icon.
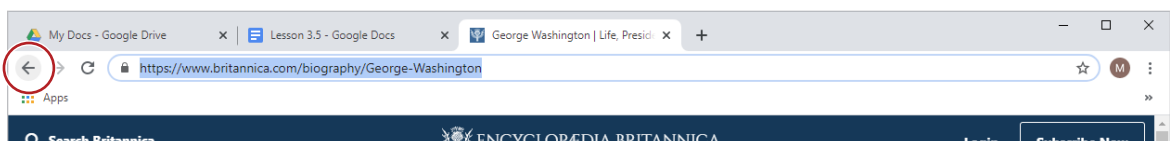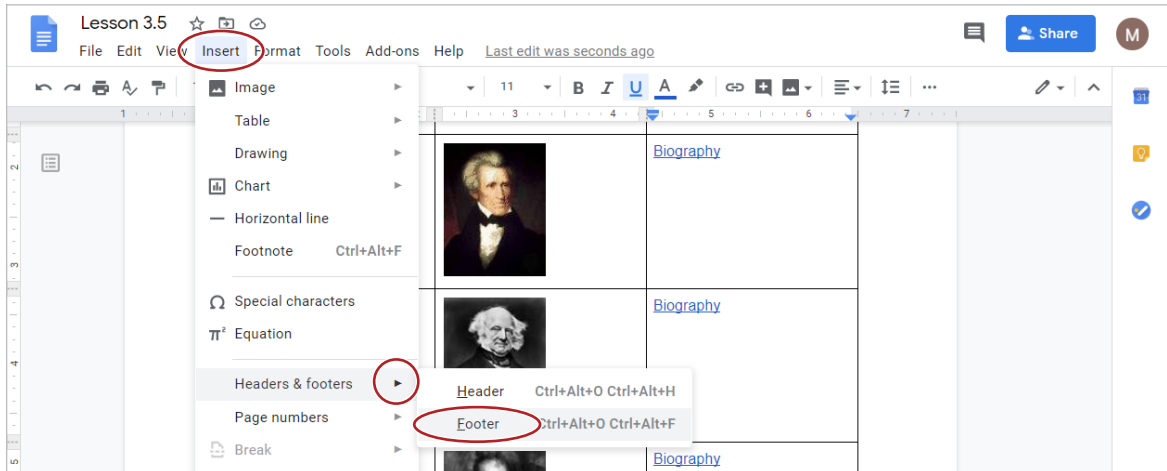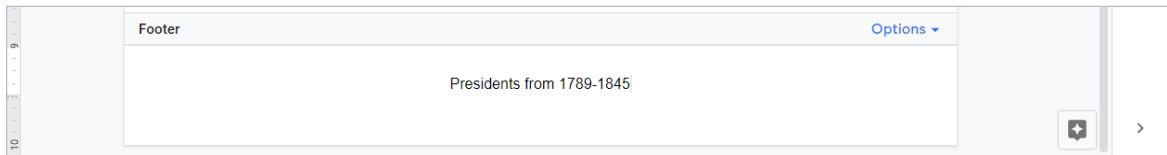
16. To complete the table with the appropriate images and links, repeat steps 12–14 for the remaining Presidents in the document.

17. Insert a Footer. To insert a footer so that text appears at the bottom of every page in the document, from the **Insert** menu, select **Headers & footers**, then select **Footer**.

18. In the footer, type [Presidents from 1789-1845] and center align.

19. Verify the links go to the correct websites by **right-clicking** each link, and selecting **Open link**.

Hint: If links are correct, you will be brought to each President's biography page.

20. Proofread your document for accuracy and format.

21. Print preview. Your document should look similar to *3.5 Figure B, Pages 1 and 2*.

22. Share or print your document if required.

3.5 Figure A

First Ten U.S. Presidents

President	Image	Link
George Washington		
John Adams		
Thomas Jefferson		
James Madison		
James Monroe		
John Quincy Adams		
Andrew Jackson		
Martin Van Buren		
William Henry Harrison		
John Tyler		

3.5 Figure B, Page 1

First Ten U.S. Presidents

President	Image	Link
George Washington		Biography
John Adams		Biography
Thomas Jefferson		Biography
James Madison		Biography
James Monroe		Biography

Presidents from 1789-1845

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3.5 Figure B, Page 2

John Quincy Adams		Biography
Andrew Jackson		Biography
Martin Van Buren		Biography
William Henry Harrison		Biography
John Tyler		Biography

Presidents from 1789-1845

Social Media Users

Creating Pie, Column, and Bar Charts

Overview

Along the bottom of your screen, Google Sheets provides you with the option to add more worksheets to a workbook. Each workbook may contain multiple sheets, and together they make up the entire workbook, or file. Renaming these sheets with a name that explains the sheet's contents makes navigating within the file easier.

Using charts and graphs can be a good way to interpret data. A pie chart is a type of graph in which a circle is divided into sections that each represent a portion of the whole. The size of each slice is proportional to the quantity it represents. Pie charts can be used to display statistics, determine the popularity of products, and more. Column charts display vertical bars of different heights going across the chart and are used for comparing two or more values, such as profit analysis, sales projections, and expenditures. Bar charts are similar, except that they present data horizontally.

In this lesson, you will create a workbook with multiple sheets about social media user statistics. You will also create a pie chart, a column chart, and a bar chart to visually display the data.

New Skills

Renaming a Sheet • Inserting a New Sheet • Merging Cells • Using Fill Color • Creating Pie, Column, and Bar Charts • Changing Sheet Tab Colors

Instructions

1. In your My Sheets folder, create a new spreadsheet and rename it **Lesson 4.5**.

2. Enter the data as shown in *4.5 Figure A, Sheet 1*.

3. **Rename a Sheet.** To change the name of a sheet for easy reference, double-click the **Sheet1** tab at the bottom of your sheet, type [Facebook], then hit the Enter key.
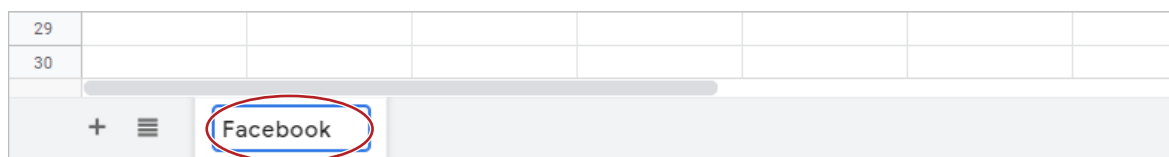
4. Insert a New Sheet. To add additional sheets into your workbook, click the **Add Sheet** icon.
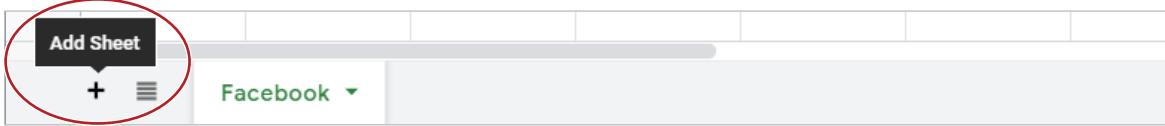
5. Insert another new sheet.

6. Enter the data as shown in *4.5 Figure A, Sheets 2 and 3*.

7. Rename Sheet2 [LinkedIn] and Sheet3 [Twitter].

8. In the Facebook, LinkedIn, and Twitter sheets, do the following:

   a. Merge Cells. To combine selected cells into a single larger cell, select cells A1-D1, then click the **Merge cells** icon.
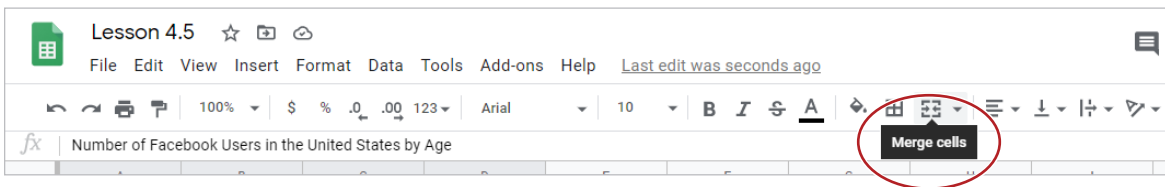
   b. Center align cell A1 and change the font size to 11.

   c. Resize column B to 120.

   d. Use Fill Color. To add background color to a cell, select cells A3 and B3, then from the **Fill color** drop-down menu, select **light blue 3**.
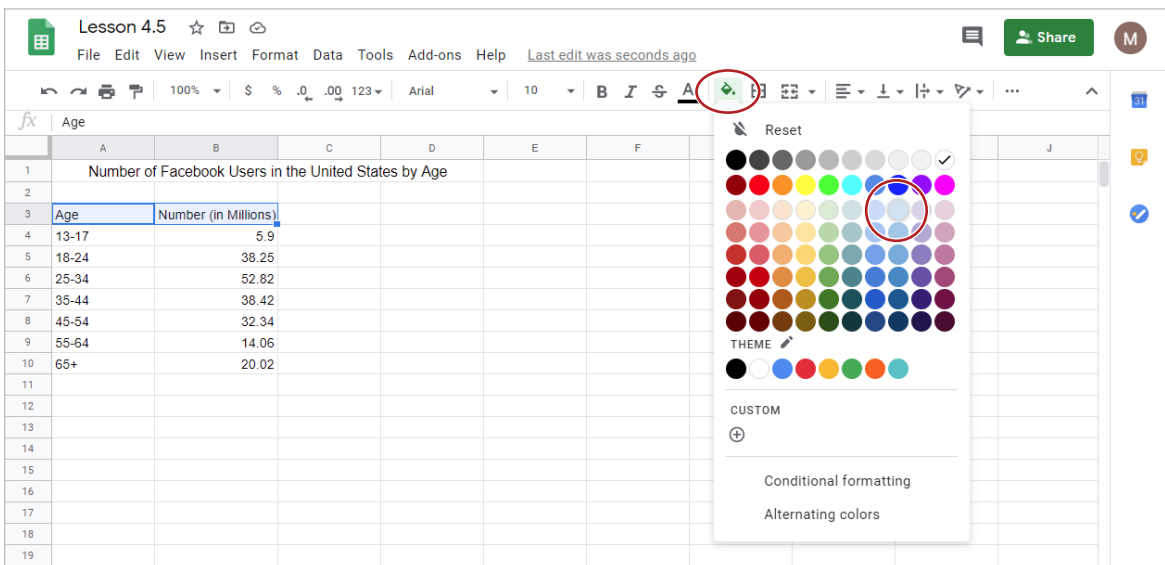
   e. Center align cells A3 and B3.

9. **Create a Pie Chart.** To create a pie chart to show parts of a whole, do the following in the Facebook sheet:

a. Select cell A3, then from the **Insert** menu, select **Chart**.
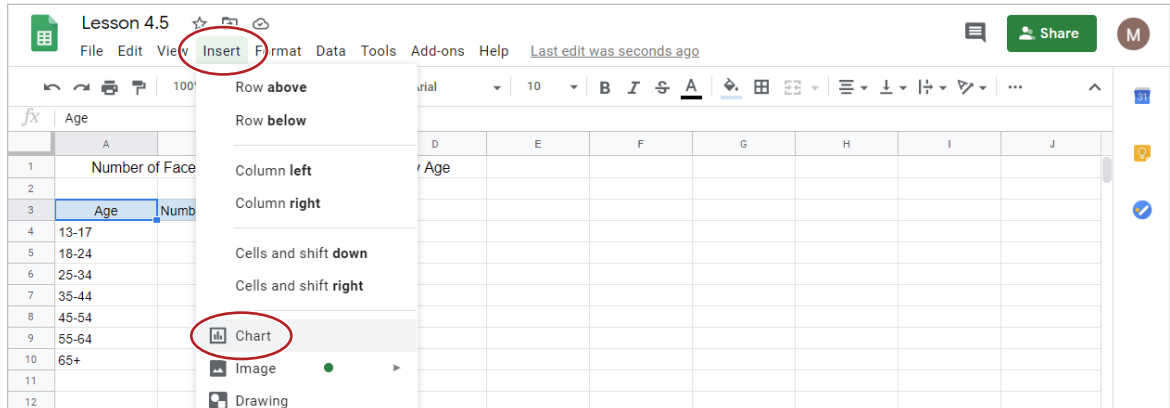
b. In the **Chart editor** panel, from the **Setup** tab, **Chart type** drop-down menu, select the **Pie chart** thumbnail.
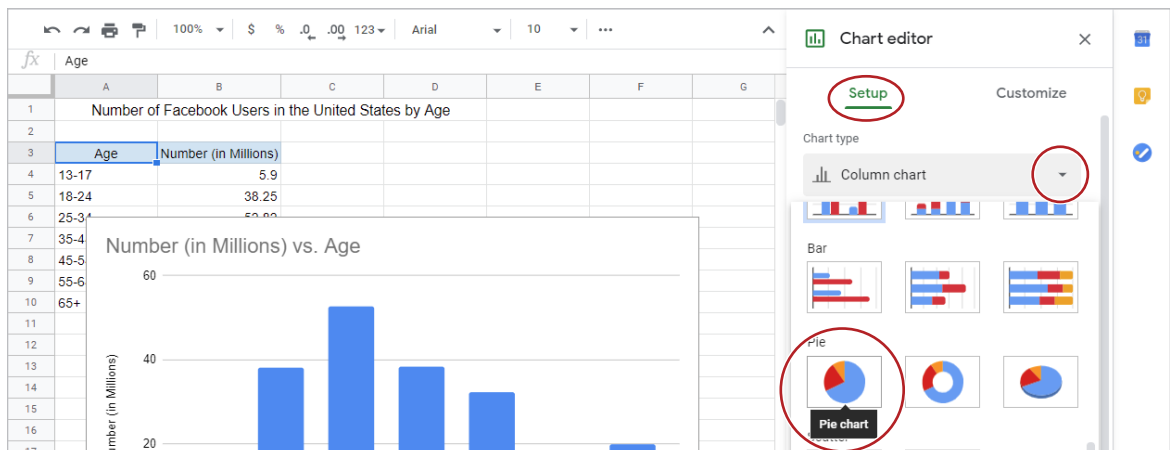
Note: *A preview of your pie chart will appear on the left.*

c. Click the **Customize** tab, and in the **Chart style** section, change the **Background color** to **light gray 1**.

d.   Change the **Font** to **Wide**.

e.   In the **Chart & axis titles** section, from the **Title type selector** drop-down menu, select **Chart title**, and type [Facebook Users by Age] in the **Title text** field.

Note: *Your chart should look similar to 4.5 Figure B, Facebook.*

f.   Click the **X** to close the **Chart editor**.

g. To move the chart to its own sheet, select the chart, then from the **More actions** menu in the top right-hand corner, select **Move to own sheet**.
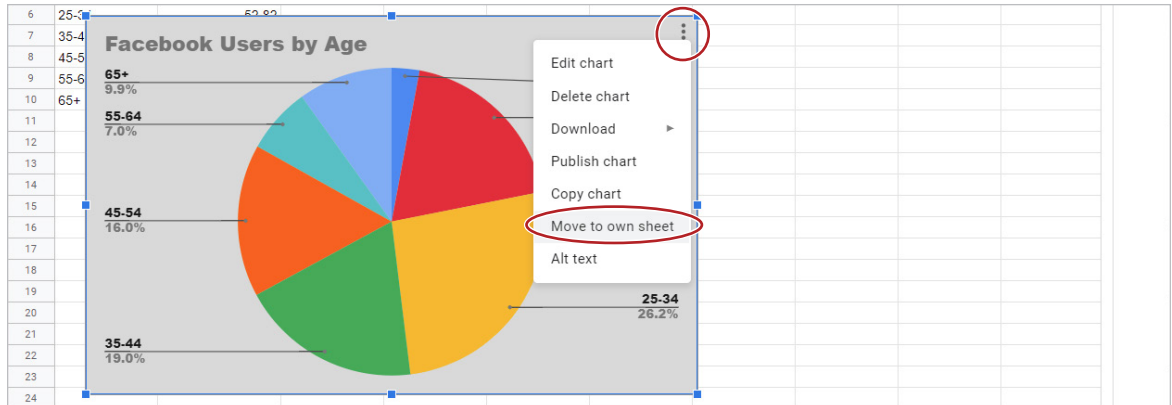
Note: *The sheet named Facebook will display the data and the sheet named Chart1 will display the pie chart.*

h. Rename the Chart1 sheet [Facebook Pie Chart].

10. Create a Column Chart. To create a column chart to compare values of multiple categories, do the following in the LinkedIn sheet:

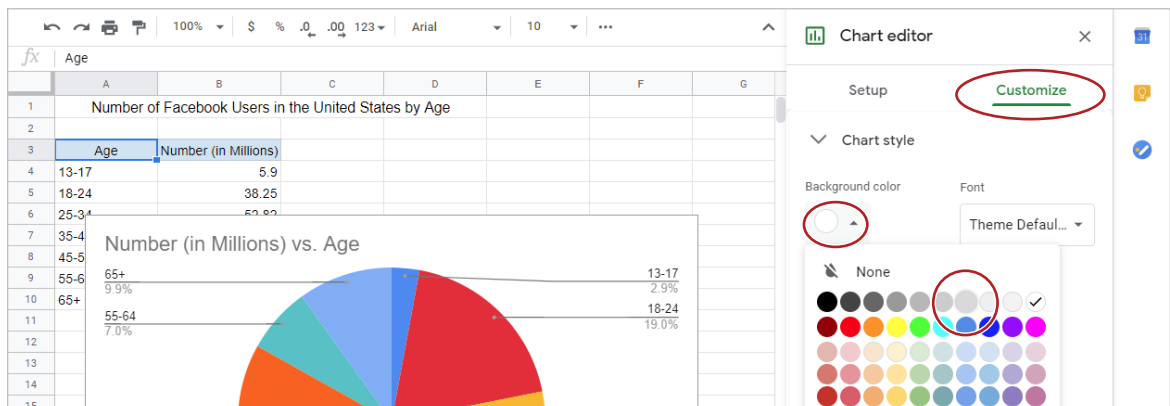**a.** Select cell A3, then from the **Insert** menu, select **Chart**.

b. In the **Chart editor** panel, from the **Setup** tab, **Chart type** drop-down menu, select the **Column chart** thumbnail.
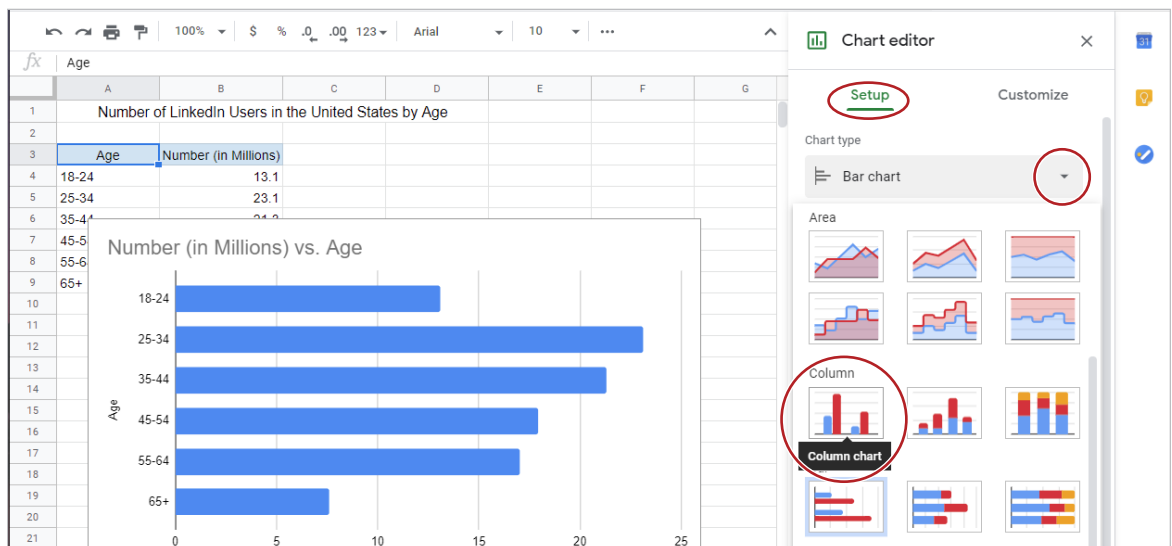
c. From the **Customize** tab, change the Background color to light blue 3, the Font to Tahoma, and the Chart title to [LinkedIn Users by Age].

d. From the **Customize** tab, **Series** section, **Color** drop-down menu, select **dark green 3**.

e. From the **Legend** section, **Position** drop-down menu, select **None**.

f. From the **Horizontal axis** section, **Slant labels** drop-down menu, select **60º**.
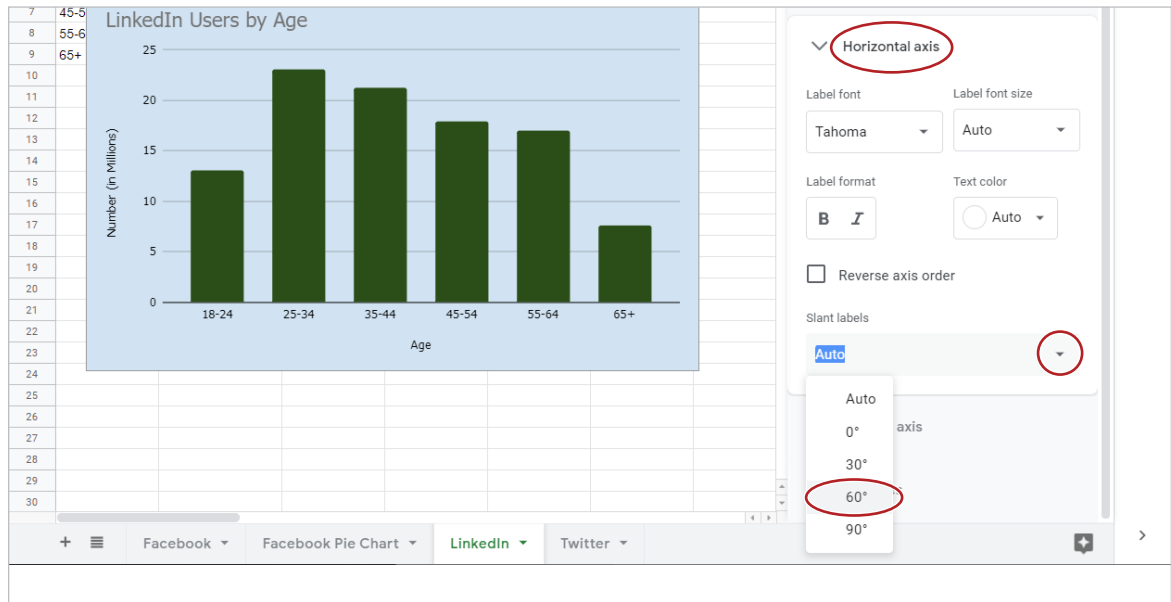
Note: Your chart should look similar to 4.5 Figure B, LinkedIn.

g. Close the **Chart editor** and move the chart to its own sheet, then rename that sheet [LinkedIn Column Chart].

11. Create a Bar Chart. To create a bar chart to compare values of multiple categories, do the following in the Twitter sheet:

a. Select cell A3, then from the **Insert** menu, select **Chart**.

b. In the **Chart editor** panel, from the **Customize** tab, change the Background color to light yellow 3, the Font to Georgia, and the Chart title to [Twitter Users by Age].

c. From the **Series** section, **Color** drop-down menu, select **dark blue 2**.
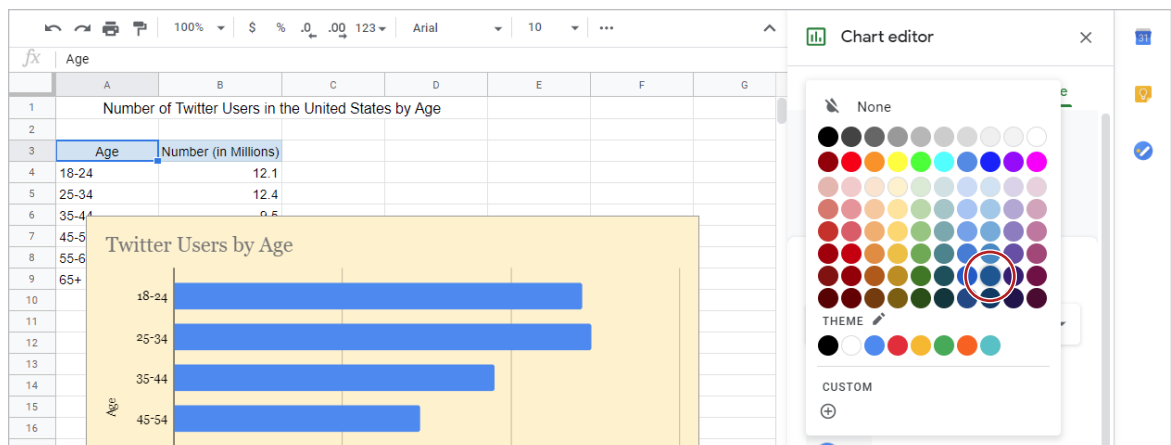
d. From the **Legend** section, **Position** drop-down menu, select **None**.
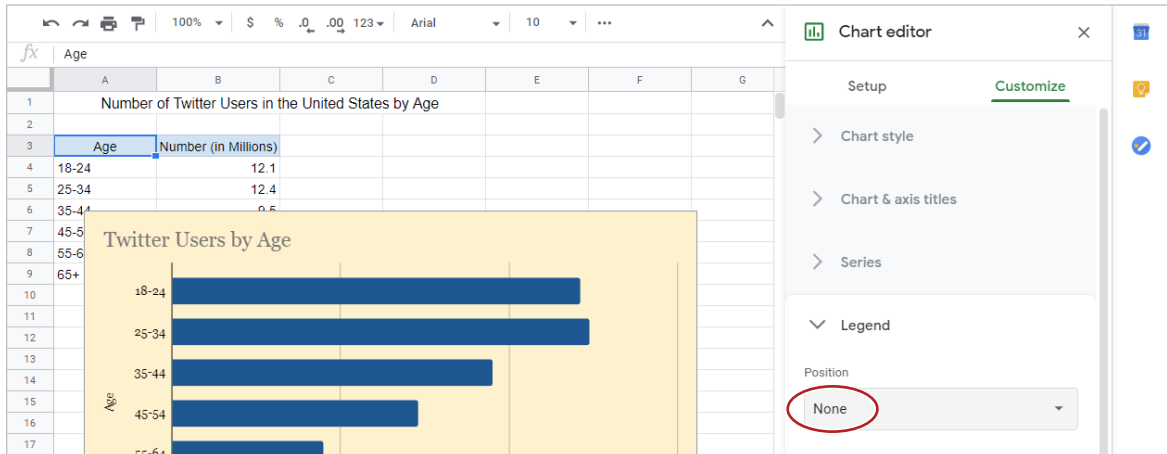
Note: Your chart should look similar to 4.5 Figure B, Twitter.

e. Close the **Chart editor** and move the chart to its own sheet, then rename that sheet [Twitter Bar Chart].

12. Change Sheet Tab Colors. To change the sheet tab colors to easily differentiate between sheets, do the following:

a. Click the Facebook Pie Chart sheet tab, then click the sheet tab drop-down arrow.
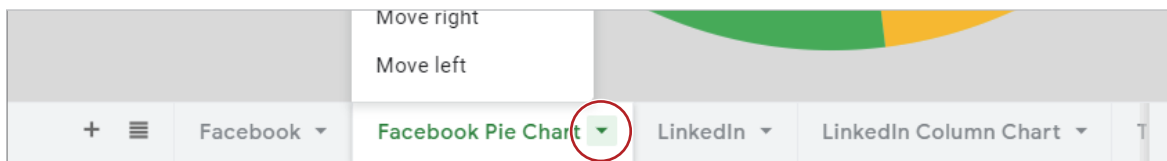
b. From the menu, click **Change color** and select **blue**.

For Evaluation Purposes Only
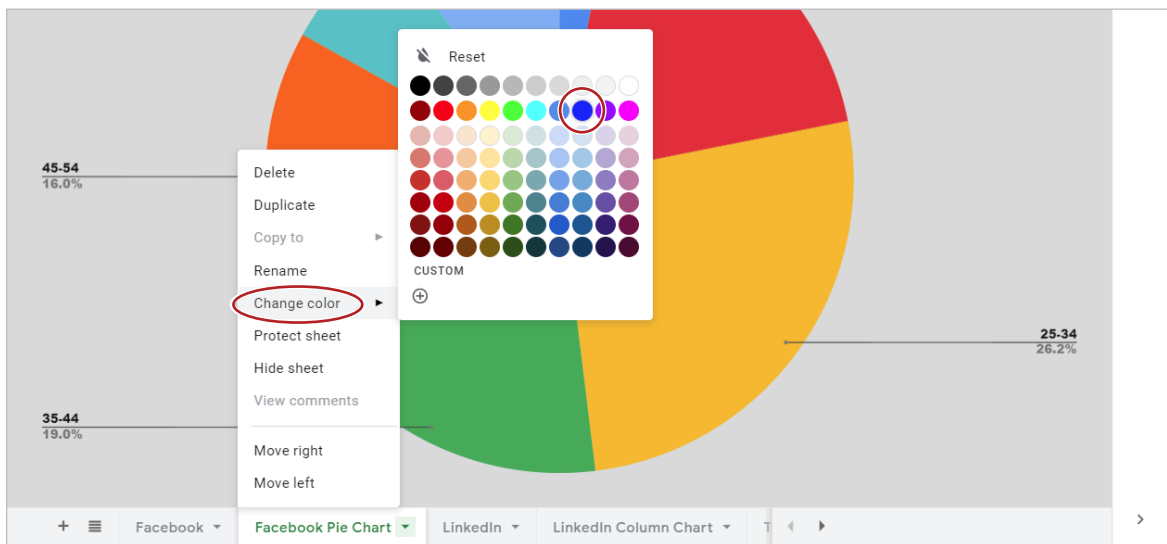
13. Change the LinkedIn Column Chart sheet tab to green and the Twitter Bar Chart sheet tab to yellow.

14. Proofread your workbook for accuracy and format.

15. Print preview the entire workbook and select Sheet name in the Headers & footers section.

16. Share or print your workbook if required.

4.5 Figure A, Sheet 1

	A	B	C	D
1	Number of Facebook Users in the United States by Age			
2				
3	Age	Number (in Millions)		
4	13-17	5.9		
5	18-24	38.25		
6	25-34	52.82		
7	35-44	38.42		
8	45-54	32.34		
9	55-64	14.06		
10	65+	20.02		

4.5 Figure A, Sheet 2

	A	B	C	D
1	Number of LinkedIn Users in the United States by Age			
2				
3	Age	Number (in Millions)		
4	18-24	13.1		
5	25-34	23.1		
6	35-44	21.3		
7	45-54	17.9		
8	55-64	17		
9	65+	7.6		

4.5 Figure A, Sheet 3

	A	B	C	D
1	Number of Twitter Users in the United States by Age			
2				
3	Age	Number (in Millions)		
4	18-24	12.1		
5	25-34	12.4		
6	35-44	9.5		
7	45-54	7.3		
8	55-64	4.5		
9	65+	3		

4.5 Figure B, Facebook

Facebook Users by Age

13-17 2.9%

18-24 19.0%

25-34 26.2%

35-44 19.0%

45-54 16.0%

55-64 7.0%

65+ 9.9%

4.5 Figure B, LinkedIn

LinkedIn Users by Age

Age

Number (in Millions)

18-24, 25-34, 35-44, 45-54, 55-64, 65+

0, 5, 10, 15, 20, 25

4.5 Figure B, Twitter

Lesson 5.7
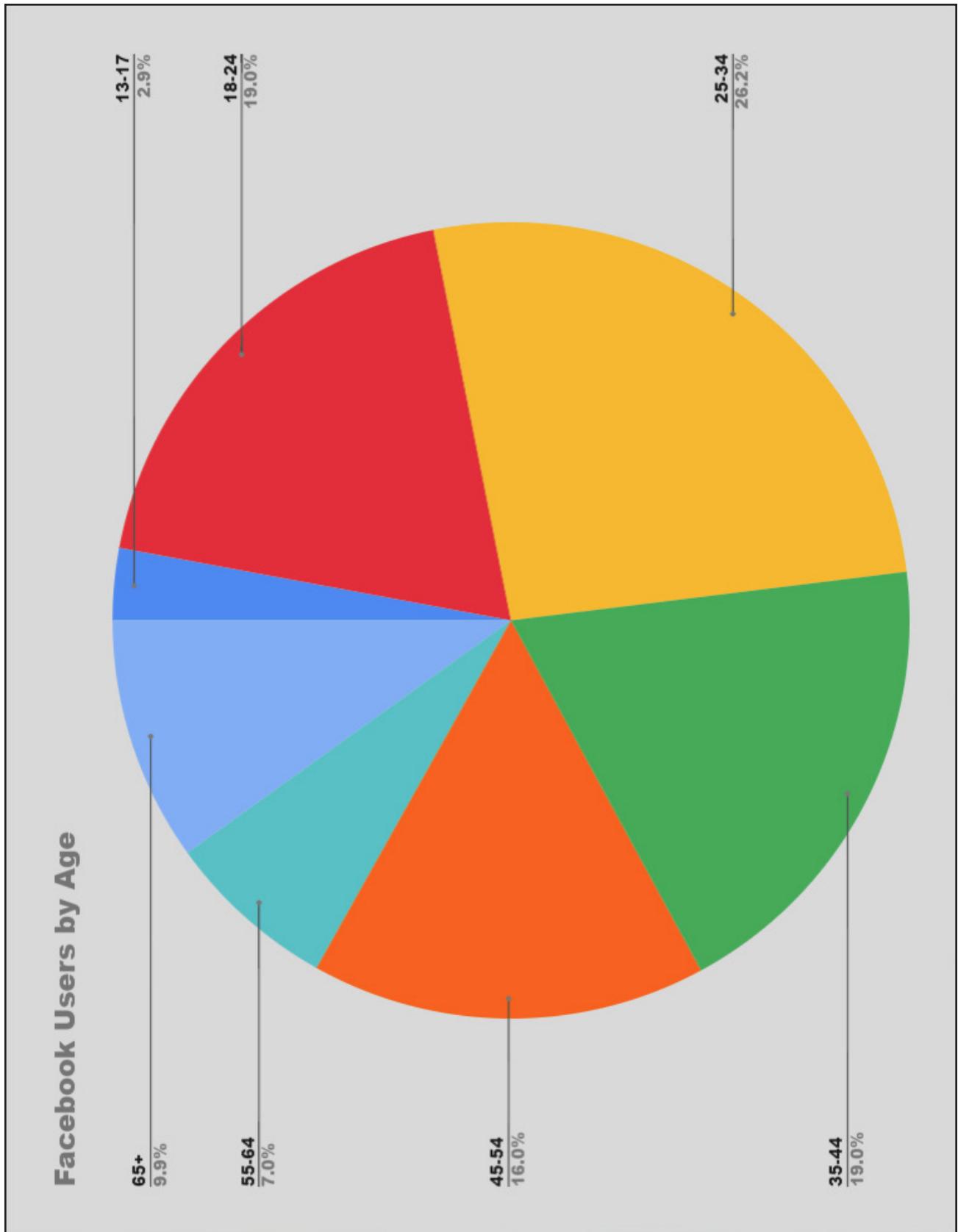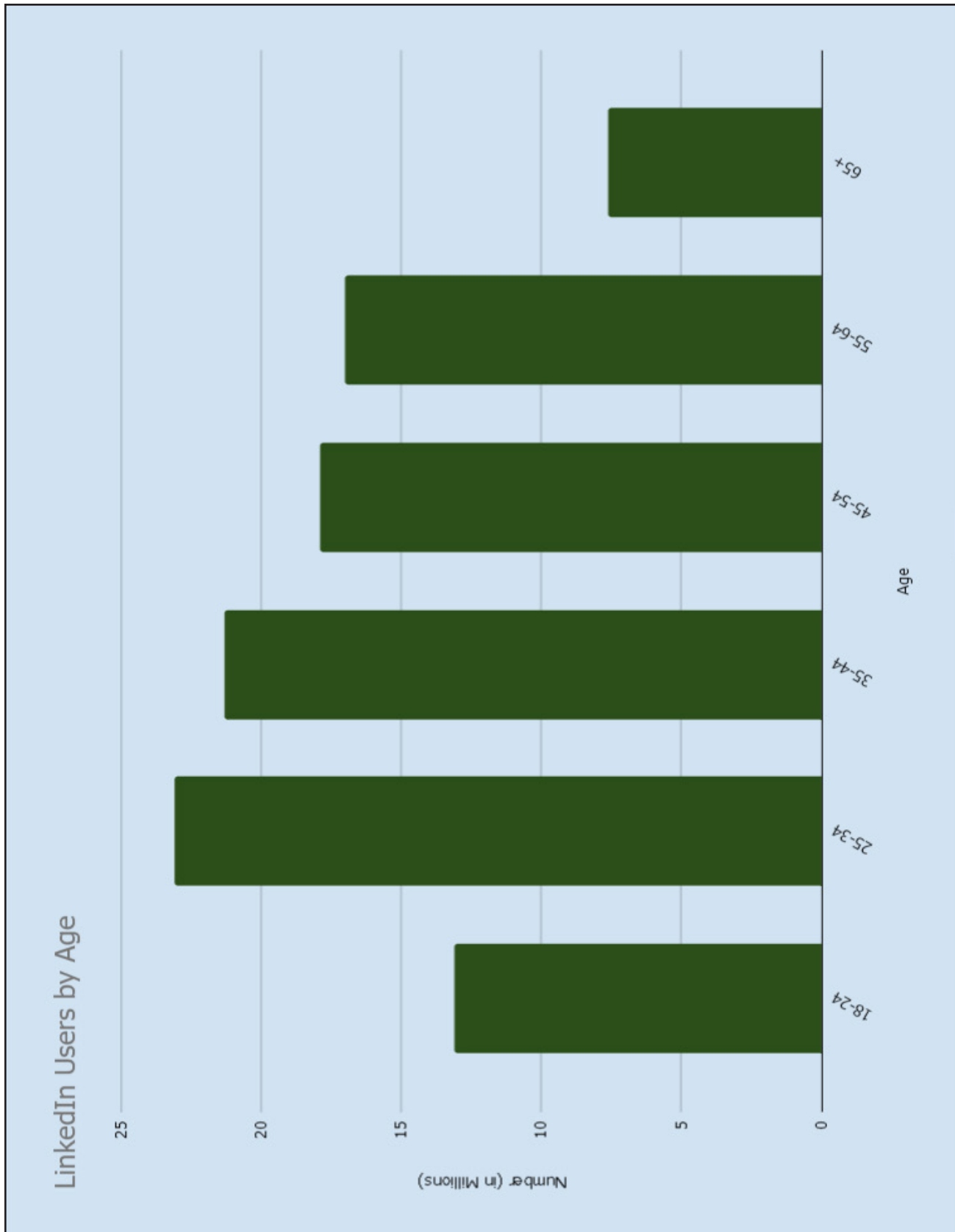
Summer Plans

Using Charts and Diagrams

Overview

Charts can be a great way to illustrate data in a presentation because they allow you to compare data, show trends over time, or display proportions of a whole. When inserting charts in Google Slides, you are given placeholder data to update with your own information. All edits to chart data are done in Google Sheets, which is automatically launched when editing. The chart can then be formatted with different elements and styles, or can be changed to a different chart type. Diagrams are another great way to enhance a slide's visual appeal. A diagram displays lists, timelines, or processes in a unique and creative way, using a pre-designed graphic that includes text boxes, shapes, and lines. Modifications to the diagram can be made to adjust the size, color, and content.
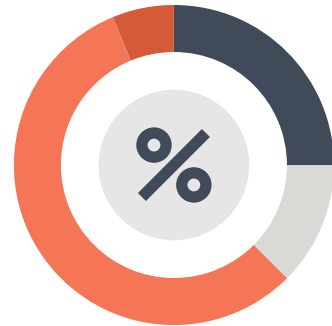
In this lesson, you will create a presentation about summer plans using bulleted lists, charts, and diagrams.

New Skills

Inserting Charts • Updating Charts • Inserting Diagrams • Previewing a Presentation • Modifying Print Settings

Instructions

1. In your My Slides folder, create a new presentation, rename it **Lesson 5.7**, and select the Tropic theme.

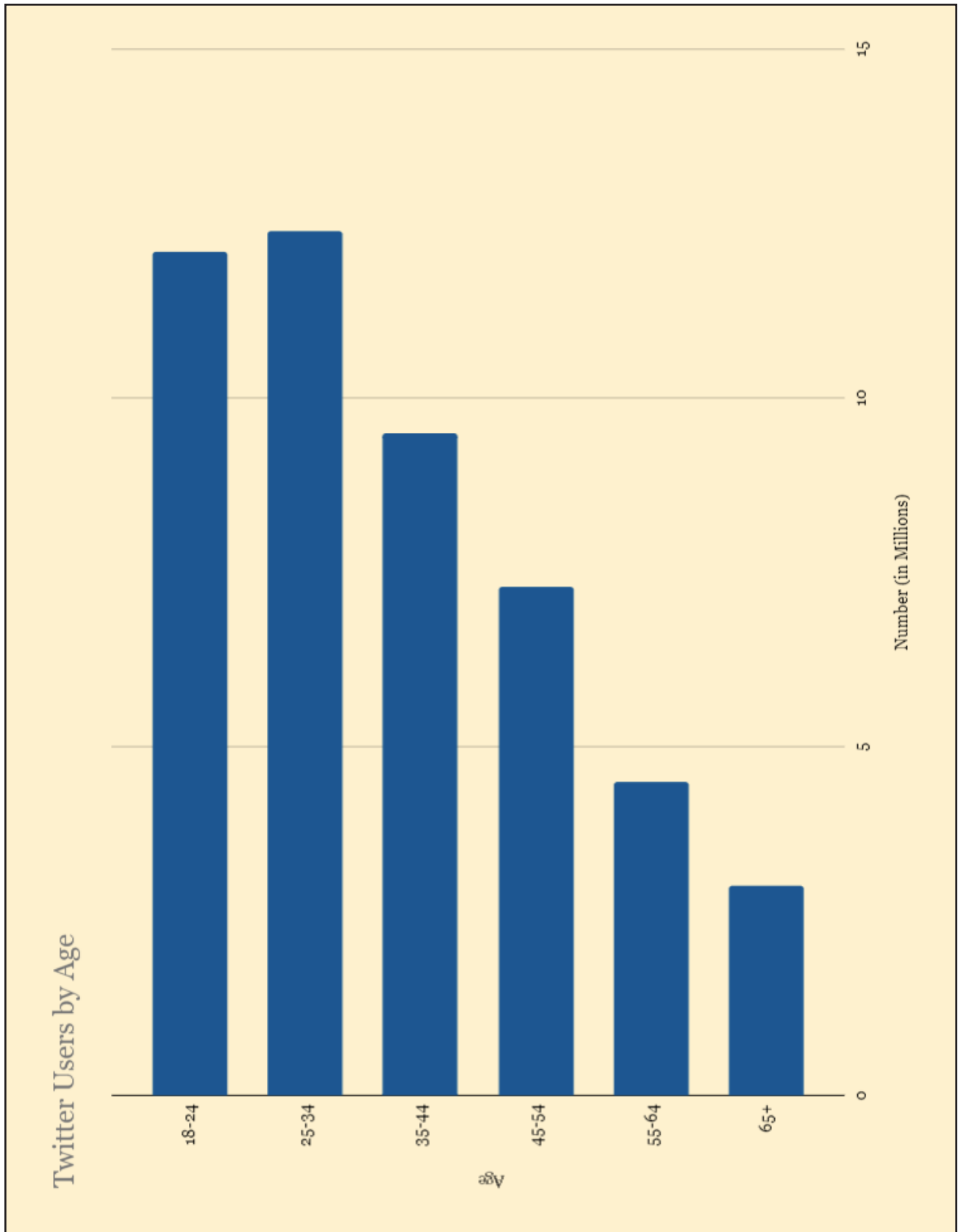2. Insert five additional slides, applying the slide layouts as indicated in *5.7 Figure A*. Use this figure as a guide when formatting each slide.

SLIDE 1

3. Type the title and subtitle as shown.

4. Change the font size of the title to 70.

5. Change the font size of the subtitle to 32.

SLIDE 2

6. Type the title as shown.

7. Using the star bullet, type the bulleted list as shown.
   Hint: *Select the star bullet from the Bulleted list drop-down menu.*

SLIDE 3

8. Type the title as shown.

9. **Create and Insert Charts.** To create and insert a chart onto your slide, do the following:

   a. From the **Insert** menu, select **Chart**, then select **Pie**.
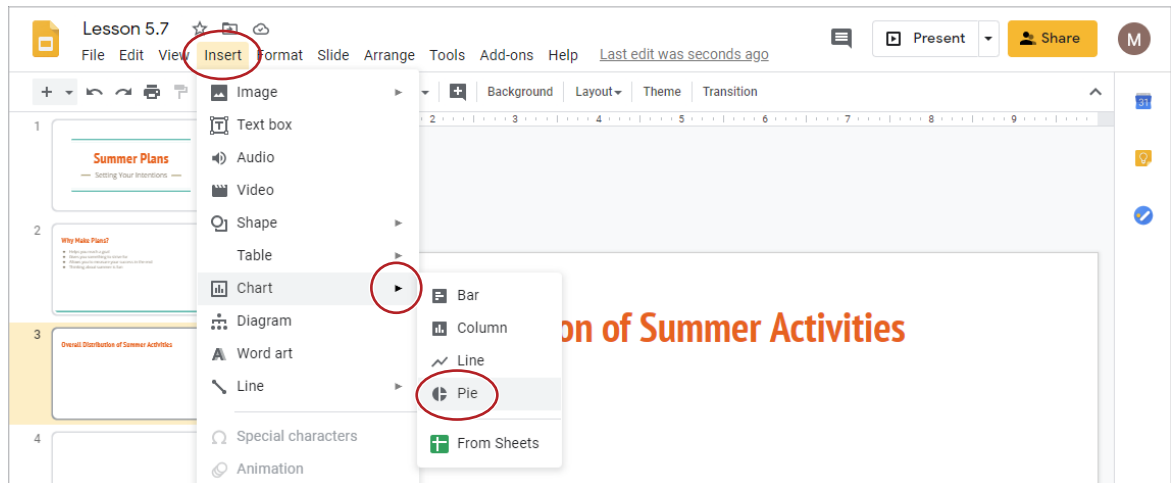
   b. From the **Linked chart options** drop-down menu, select **Open source**.
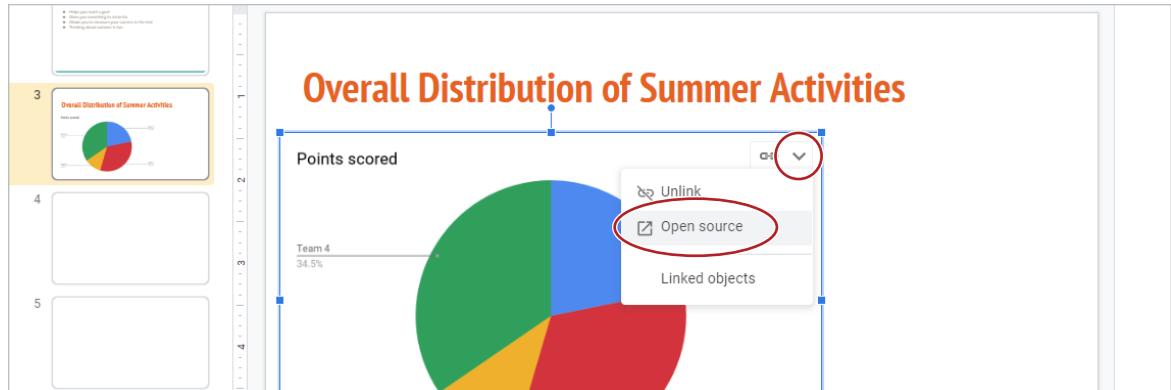
   Note: A new tab will open with the Google Sheets file **Lesson 5.7 – Pie chart 1**.

   c. Edit the data as follows:

	A	B
1	Overall Distribution of Summer Activities	hours per week
2	Reading	15
3	Swimming	20
4	Learning something new	30
5	Traveling	8

   d. Double-click the chart title [Points scored] and delete the text.

   e. Close **Lesson 5.7 – Pie chart 1** and return to **Lesson 5.7**.

10. Update Linked Charts. To update the chart on Slide 3 with the changes just made, do the following:

a. Select the pie chart on Slide 3, then click **UPDATE**.
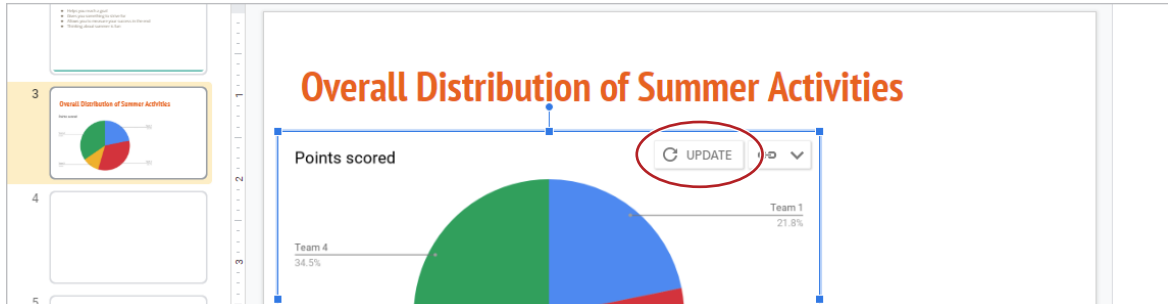
SLIDE 4

11. Insert a Grid Diagram. To insert a grid diagram to display data in a unique and creative way, do the following:

a. From the **Insert** menu, select **Diagram**.
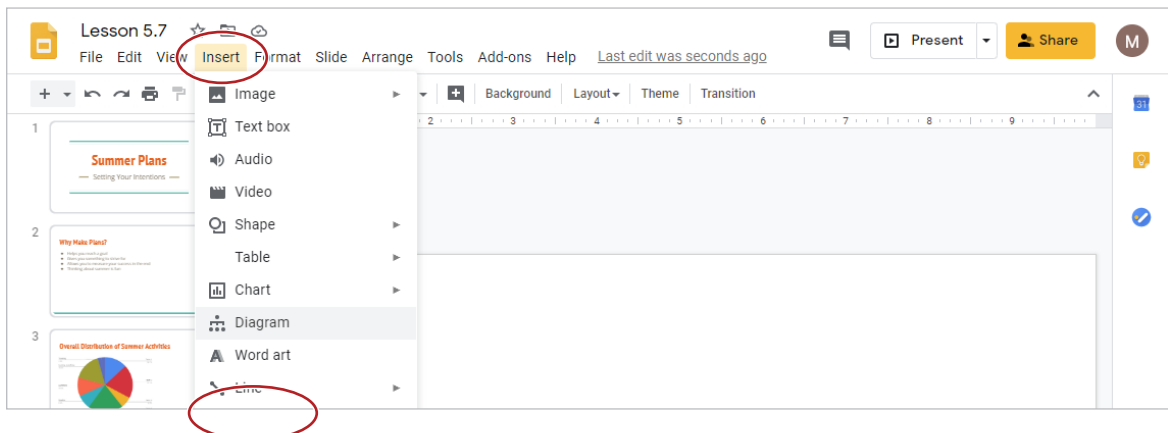
b. Select **Grid** from the **Diagrams** panel.

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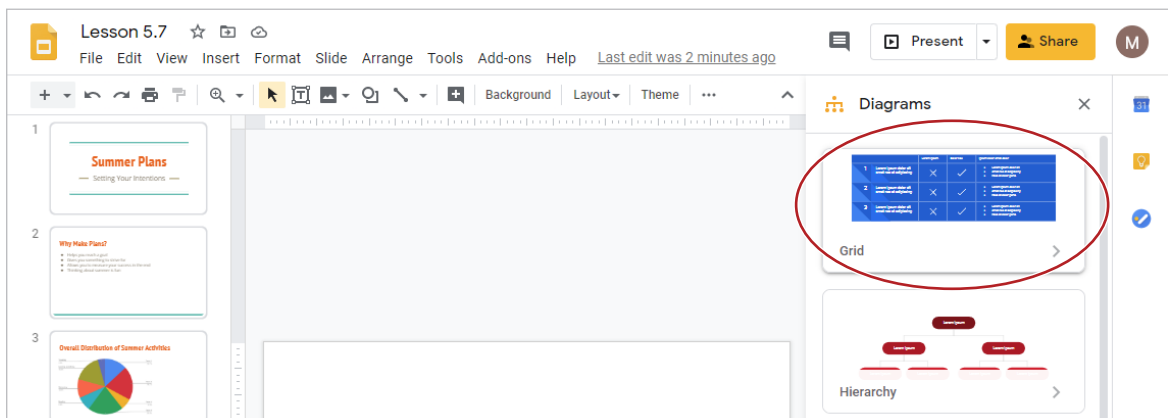
c. Select **4** from the **Levels** drop-down menu.
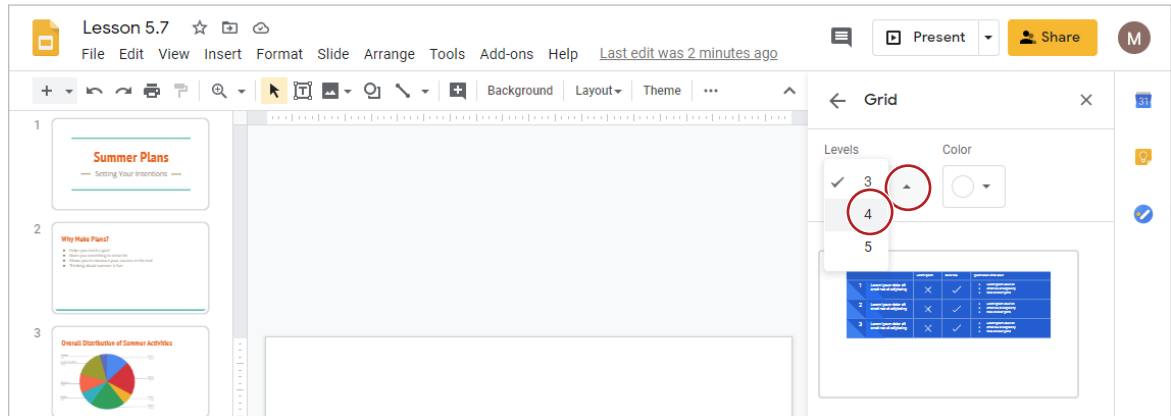
d. Select the grid diagram similar to the one shown in *5.7 Figure A*, then close the panel.

e. Edit the contents of the diagram as shown below. Notice that the diagram is made up of multiple text boxes and shapes. Be careful not to reposition the objects that make up the diagram.

11%	**20.5**%	**41.1**%	**27.4**%
Traveling	**Reading**	**Learning**	**Swimming**
Travel is an important part of my summer plans. I plan to travel one day per week.	Reading is my favorite way to relax. The summer is a great time to catch up on books.	There are so many things that I want to learn, such as how to paint, cook, and speak Spanish.	I plan to use my swimming pool and visit the beach.

|			
• Plan small local trips • Look for friends to join • Consider a longer vacation • Spend time outdoors	• Pick classic books • Read current best-sellers • Start a book club • Visit the library	• Watercoloring • Cooking • Spanish • Coding	• Buy a new swimsuit • Visit at least 2 beaches • Wear sunscreen • Relax at the pool

SLIDE 5

12. Type the title as shown.

13. Insert a Timeline Diagram. To insert a timeline diagram to show events in chronological order, do the following:

a. From the **Insert** menu, select **Diagram**.

b. Select **Timeline** from the **Diagrams** panel.
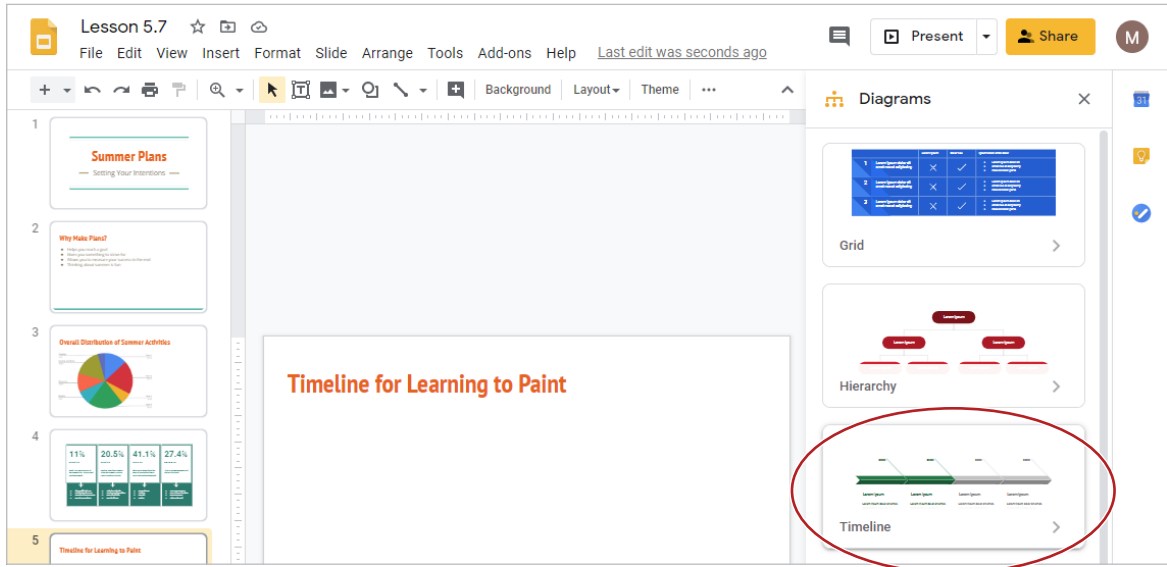
c. Select **6** from the **Dates** drop-down menu.
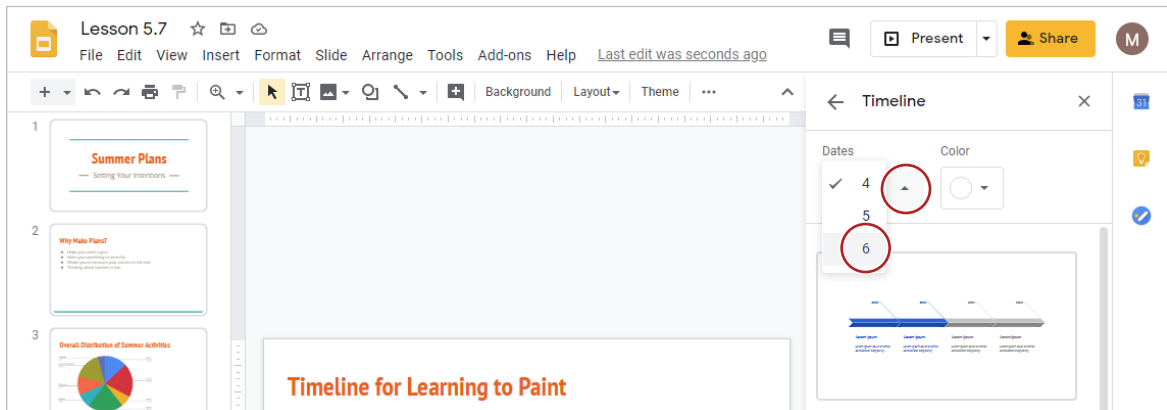
d. Select **cornflower** from the **Color** drop-down menu.

e. Select the timeline diagram similar to the one shown in *Figure 5.7 A*, then close the panel.

For Evaluation Purposes Only

f. Edit the contents of the diagram as shown below.

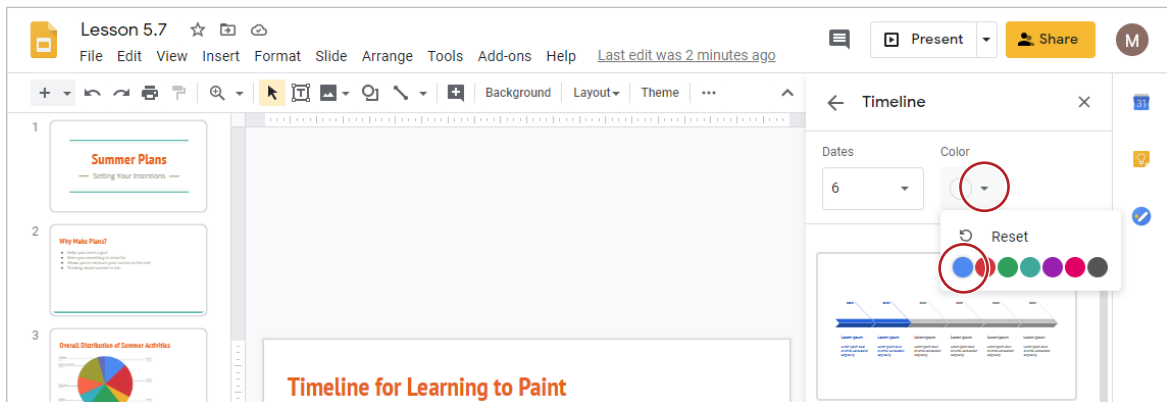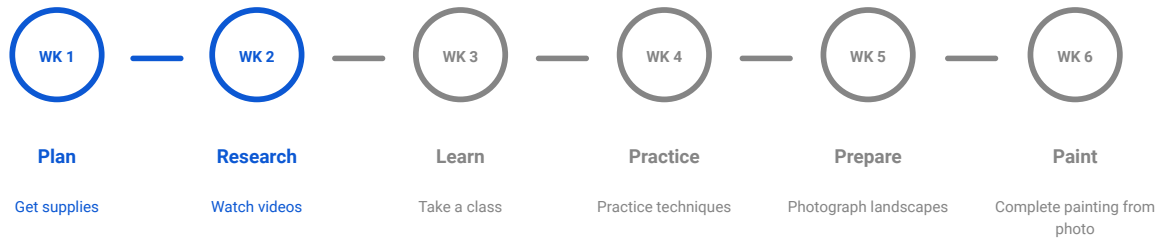| WK 1	WK 2	WK 3	WK 4	WK 5	WK 6
Plan	**Research**	**Learn**	**Practice**	**Prepare**	**Paint**
Get supplies	Watch videos	Take a class	Practice techniques	Photograph landscapes	Complete painting from photo

SLIDE 6

14. Type the title as shown.

**15. Insert a Hierarchy Diagram.** To insert a hierarchy diagram to display data as broad categories narrowed down to more detailed information, do the following:

a. From the **Insert** menu, select **Diagram**.

b. Select **Hierarchy** from the **Diagrams** panel.

c. Select **3** from the **Levels** drop-down menu.

d. Select the hierarchy diagram similar to the one shown in *5.7 Figure A*, then close the panel.

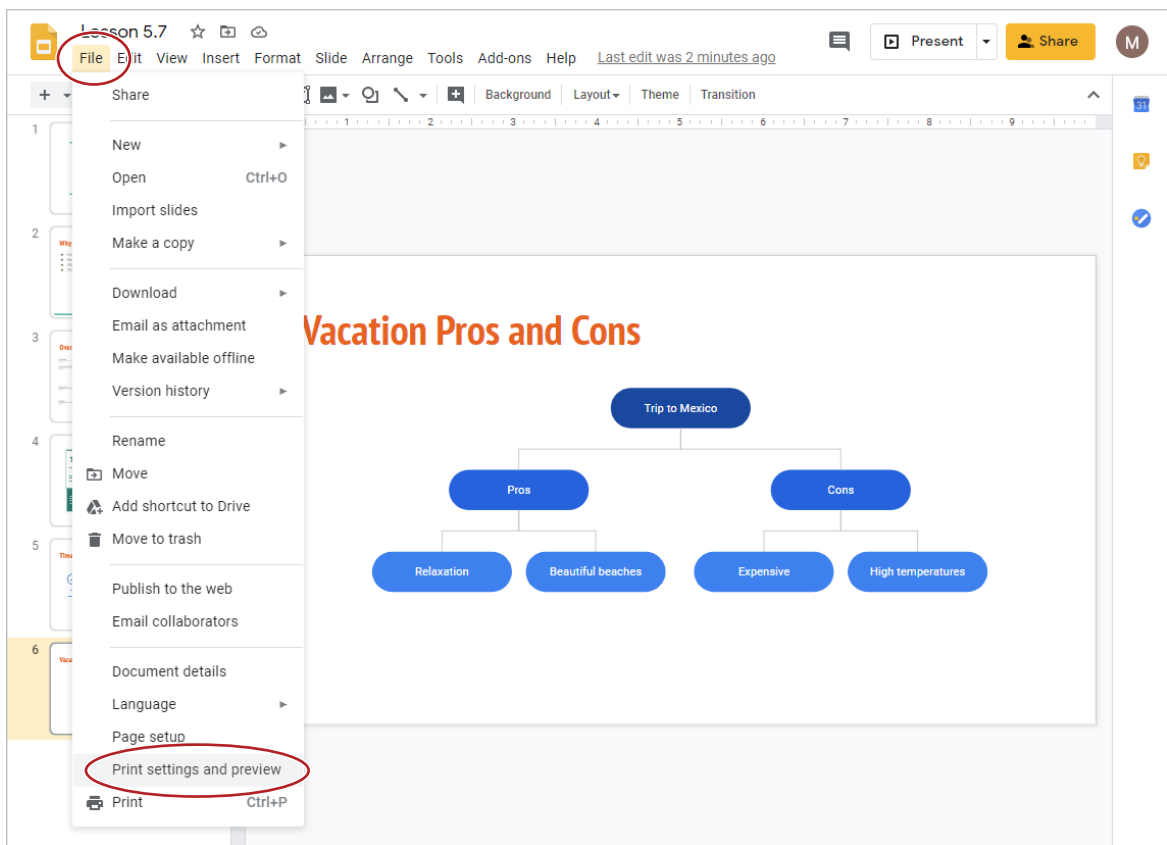**e.** Edit the contents of the diagram as shown below.
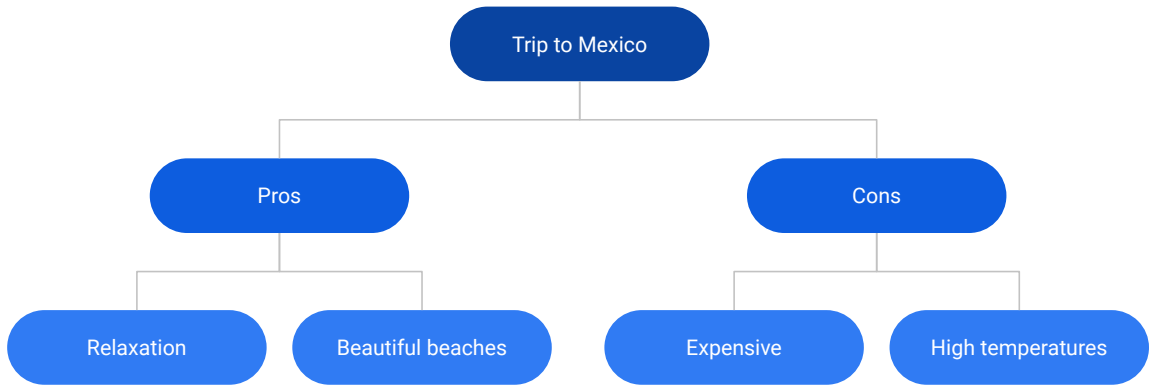
16. Proofread your presentation for accuracy and format. Your presentation should look similar to *5.7 Figure A*.

17. Preview a Presentation. To preview a presentation and view print settings, do the following:

a. From the **File** menu select **Print settings and preview**.
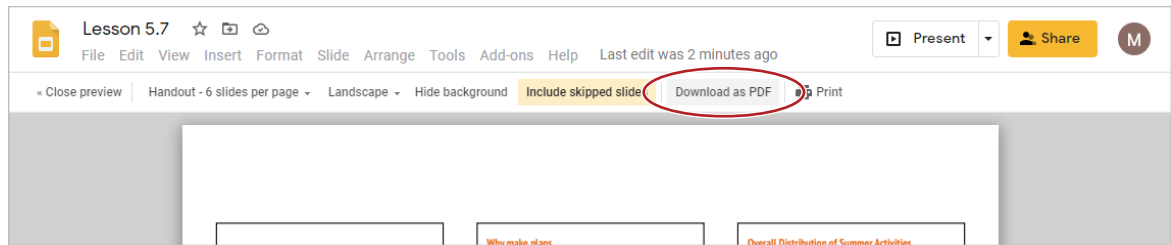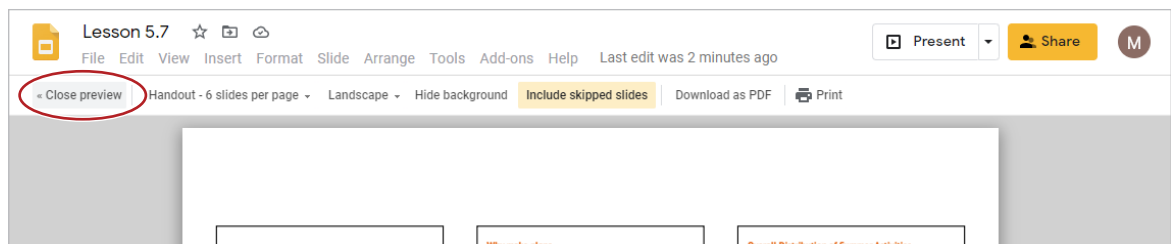

For Evaluation Purposes Only

18. **Modify Print Settings.** To change the way the presentation prints, from the **Handout** drop-down menu select **Handout - 6 slides per page**.
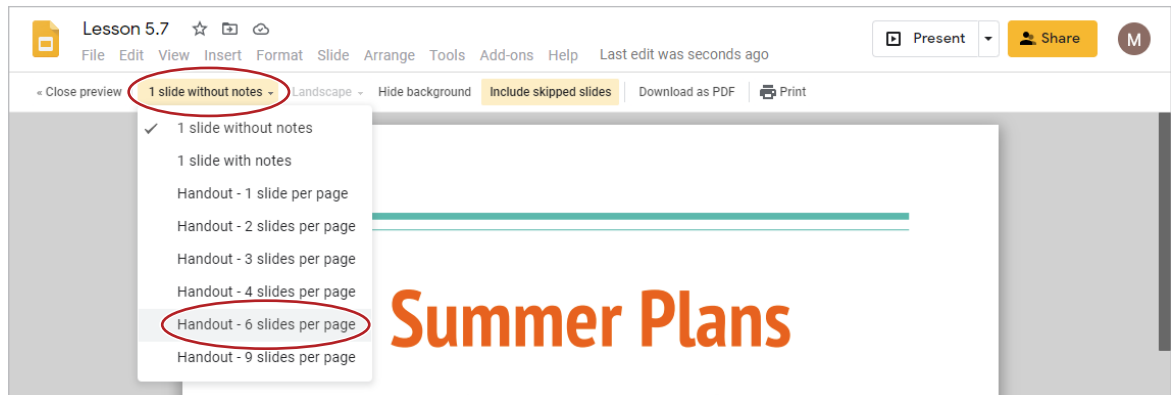
a. Click **Download as PDF** to download a copy of your presentation to your computer.

b. Click **Close preview** to return to your presentation.

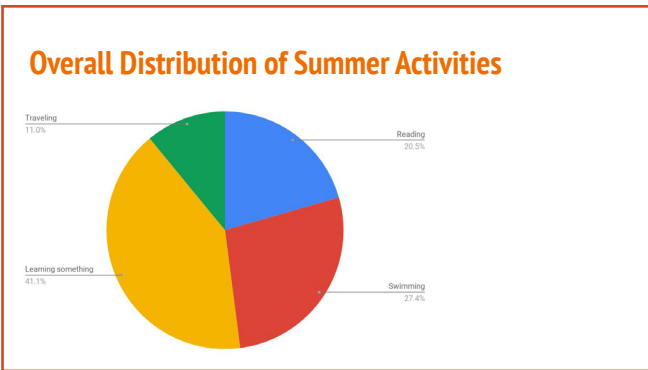19. Share or print your presentation if required.

5.7 Figure A

Summer Plans

— Setting Your Intentions —

Slide 1 | Layout: Title slide

Why Make Plans?

★ Helps you reach a goal
★ Gives you something to strive for
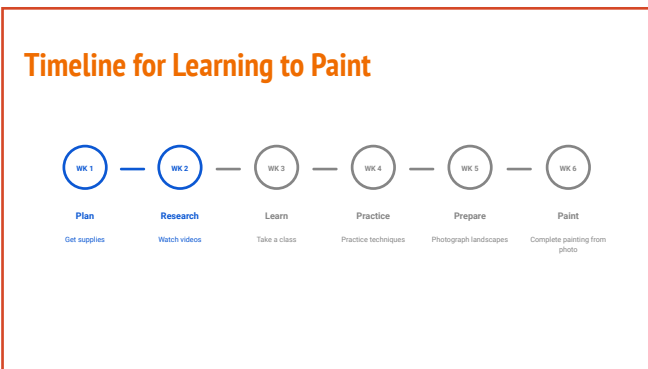★ Allows you to measure your success in the end
★ Thinking about summer is fun

Slide 2 | Layout: Title and body

Overall Distribution of Summer Activities

Traveling 11.0%
Reading 20.5%
Swimming 27.4%
Learning something 41.1%

Slide 3 | Layout: Title only

11% Traveling
Travel is an important part of my summer plans. I plan to travel one day per week.
- Plan small local trips
- Look for friends to join
- Consider a longer vacation
- Spend time outdoors

20.5% Reading
Reading is my favorite way to relax. The summer is a great time to catch up on books.
- Pick classic books
- Read current best-sellers
- Start a book club
- Visit the library

41.1% Learning
There are so many things that I want to learn, such as how to paint, cook, and speak Spanish.
- Watercoloring
- Cooking
- Spanish
- Coding

27.4% Swimming
I plan to use my swimming pool and visit the beach.
- Buy a new swimsuit
- Visit at least 2 beaches
- Wear sunscreen
- Relax at the pool

Slide 4 | Layout: Blank

Timeline for Learning to Paint

WK 1 — Plan — Get supplies
WK 2 — Research — Watch videos
WK 3 — Learn — Take a class
WK 4 — Practice — Practice techniques
WK 5 — Prepare — Photograph landscapes
WK 6 — Paint — Complete painting from photo

Slide 5 | Layout: Title only

Vacation Pros and Cons

Trip to Mexico
- Pros
  - Relaxation
  - Beautiful beaches
- Cons
  - Expensive
  - High temperatures

Slide 6 | Layout: Title only