

“Advancing Science Learning through Digital tools and AI Driven Technology”



Designing Science Project with Gemini AI

Day 1- December 1, 2025



Pedagogical Shift: Towards Project-Based Learning

From Facts to Inquiry

Active Engagement

Critical Thinking

Collaboration



** Images are generated by AI(Gemini)

A Tale of Two Science Classrooms

Traditional Classroom

Vs

PBL Classroom

Rote Learning

Teacher-Led Instruction

Static Facts

Active Inquiry

Student-Driven Discovery

Dynamic Process



** Images are generated by AI(Gemini)

PBL: Aligning Pedagogy with NEP 2020 Goals

Develops Scientific Temper through Evidence-Based Thinking

Nurtures Critical Thinking and Problem-Solving Capabilities

Enables true Experiential Learning by "learning by doing"



** Images are generated by AI(Gemini)

Significance of Digital Project Learning Experiences

Transforms a static document into a dynamic hub

Centralized Resources

Continuous Monitoring

Dynamic & Adaptable



** Images are generated by AI(Gemini)

Blueprint for Today: The Project Design Process



Phase 1: Inquiry & Conceptualization

Use Gemini as your AI assistant to Identify Contextual Challenges to stimulate Critical Thinking.



Phase 2: Structure & Build

Use Google Docs to build the project blueprint, create checklists, and structure assessment rubrics.

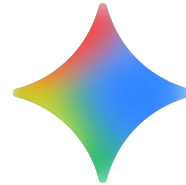


Phase 3: Organize & Share

Set up your project plan for easy collaboration and feedback with students and colleagues.



Designing Digital Lessons through Docs and Gemini



Introduction to Google Docs

What is Google Docs?



A tool - Create text documents such as reports, stories, or articles

Includes - Text, images, tables, diagrams

Educational uses of Google Docs

A versatile tool for

- Class notes, review notes, lesson planning
- Writing essays or stories
- Collaborative writing and brainstorming
- Creating templates for students
- Individual assignments, group projects, research
- Peer feedback and assessments
- Translations, Text to Speech

[Sample Doc](#)





Features of Google Docs

Content & Formatting

- Text Formatting
- Document Structure
- Alignment
- Lists

Adding Rich Content

- Insert Images
- Insert Tables
- Insert Hyperlinks
- Insert Footnotes

Productivity & Accessibility

- Voice Typing
- Translate Document
- Document Tabs
- Text to Speech

Collaboration & Feedback

- Sharing
- Access Roles
- Comments
- Suggesting Mode

AUTOMATIC SAVING



Creating a doc

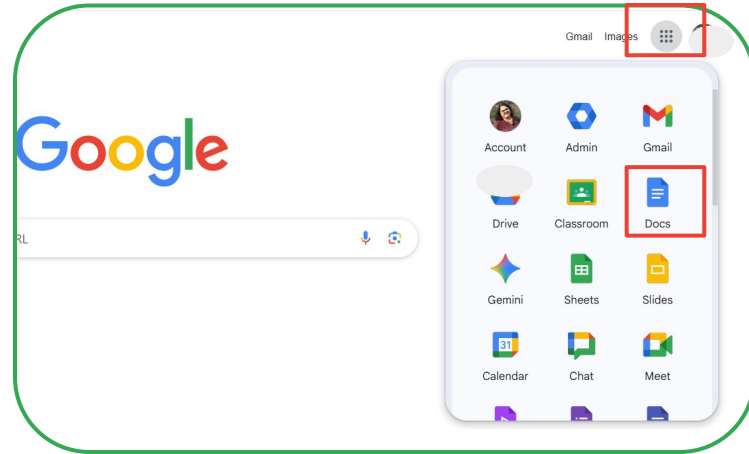
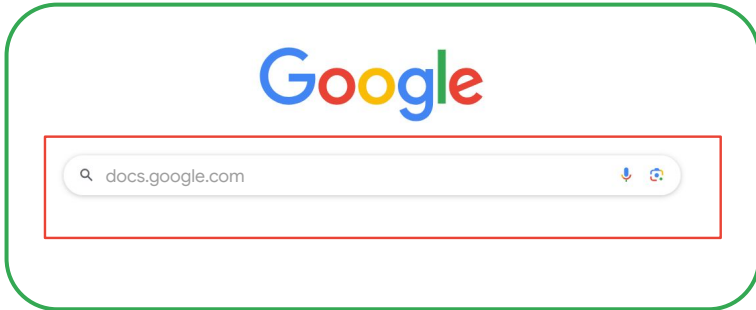
Open the browser

- docs.google.com
- Sign-in with gmail id

OR

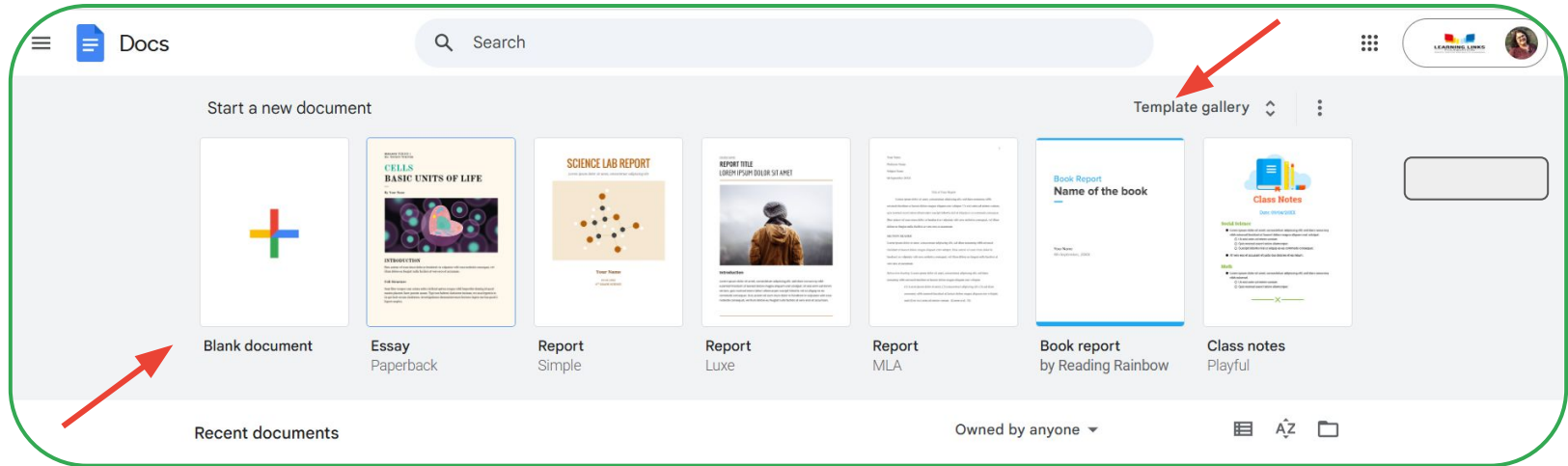
If Google is the search engine:

- Click on nine dots(waffle)
- Select Docs



Opening a blank doc

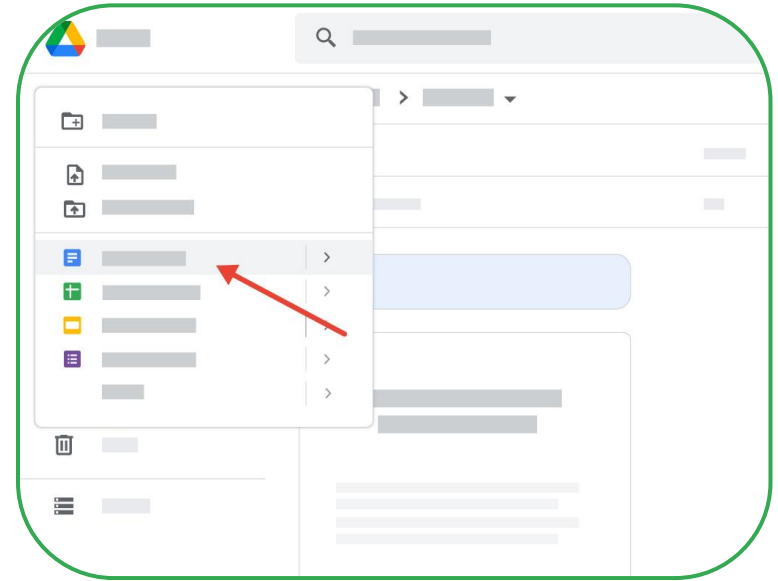
Open the Blank Document **OR** Select the Template from Template Gallery as per requirement



Creating a doc

We begin by going to Google Drive,

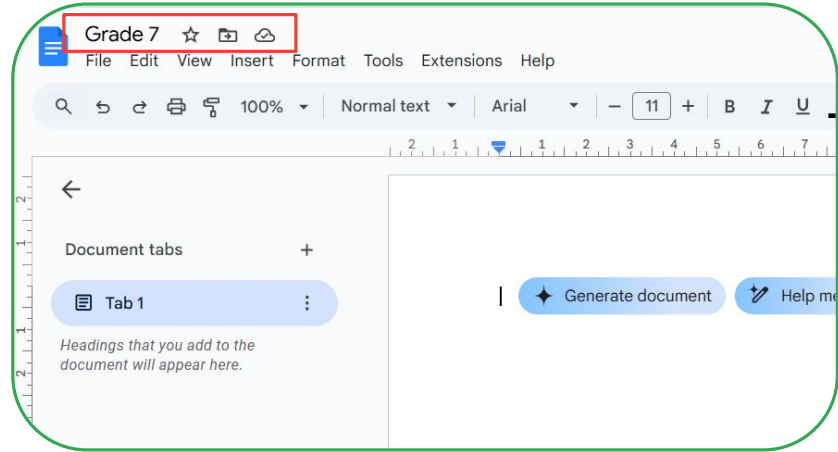
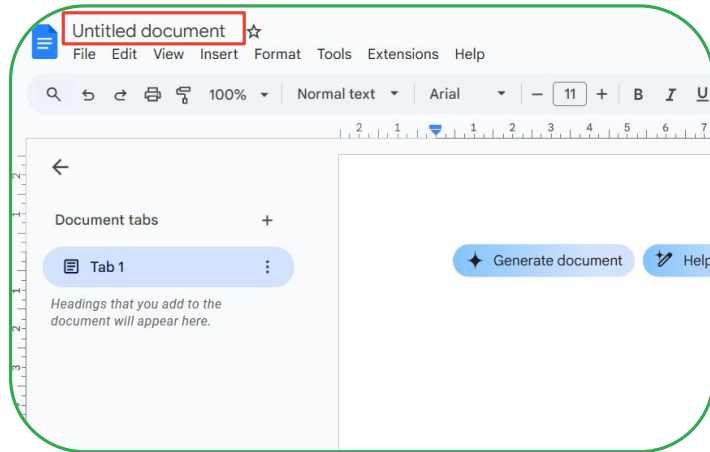
- Logging into Google account if prompted to do so.
- In Google Drive, click **New** and then click **Google Docs** (not the arrow).
- A new tab will open with a new doc for edit.



Naming your doc

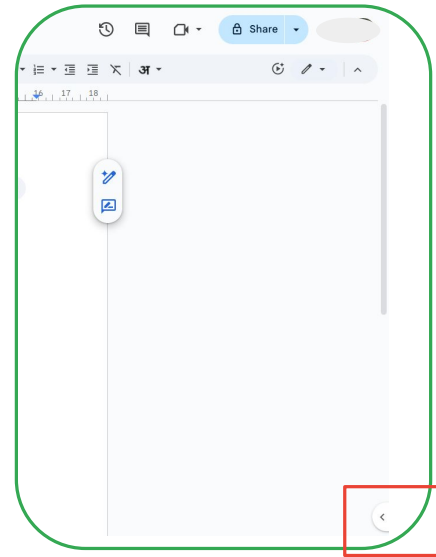
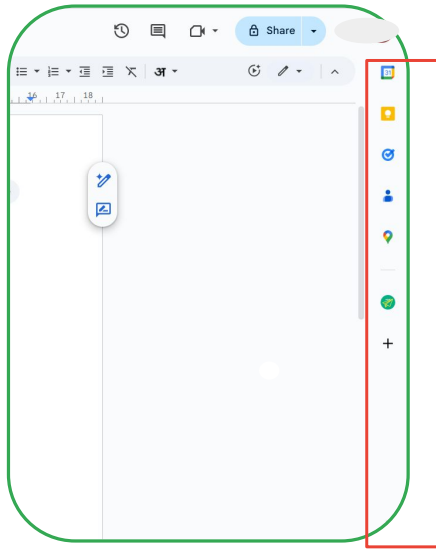
The name of doc needs to show what the doc is about to make it easier to find and open again later.

- Click **Untitled document** on the top left.
- Type in a name for your document then press **Enter** on your keyboard.
- Doc name will be saved automatically.



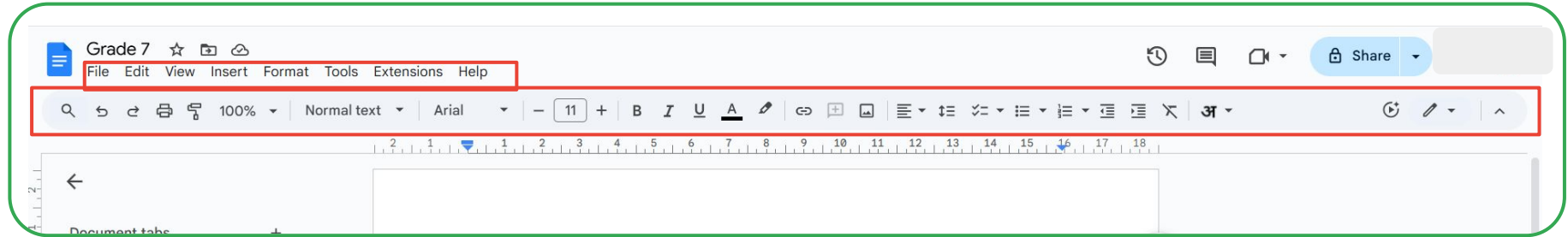
Right side of doc

- The right side of the doc shows the communicating and organising tools.
- Hide it by clicking the arrow on bottom right corner



Menu Bar and Ribbon

- The Menu Bar will show - File, Edit, View, Insert, Format, Tools, Extensions, Help, Version History, Comments, Gmeet, Share
- The Ribbon shows the most commonly used icons from Menu Bar

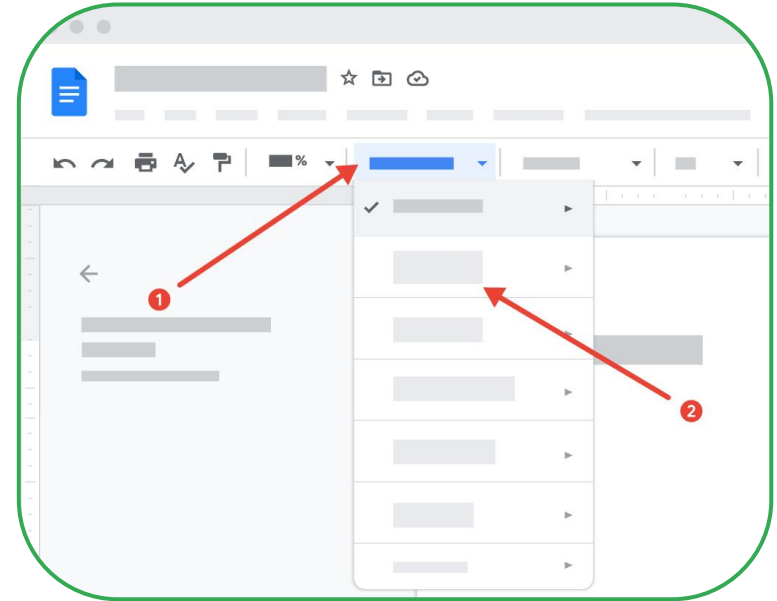


Adding and formatting text

Easily add text to doc and format it.

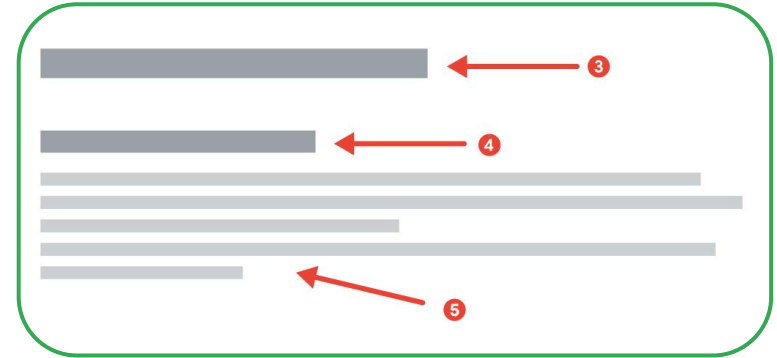
Click on the empty white space and type the title of your Doc. The title should tell students what they will be learning about.

1. Change the text style to **Title**, to make it stand out. To do so, click **Normal text**.
2. In the menu that just opened, click **Title**.



Besides the title, headings can help us structure our docs.

- Press **Enter** on keyboard to start a new paragraph.
- Start typing first heading. Change the text style to **Heading 1**, to make it stand out. Just like the title before, click on **Normal text**. In the menu that just opened, click on **Heading 1**.
- Press **Enter** to start a new paragraph. Add some more text, without changing the styles.



3. Title.
4. Heading 1.
5. Normal Text.



Further customize the text, by changing the font, the size, making it **bold**, *italic*, or underlined.



6. Click **Arial** to change the font. Select the font from the dropdown menu.
7. Click on **11** to change the size of the text. The larger the number you choose, the larger the writing will be.
8. Optional: Make the text **bold**, *italic*, or underlined by clicking the 'B' 'I' or 'U' buttons.
9. Select the text to customize: click and hold at the end of the text and drag the cursor across everything to customize and make the the text changes.

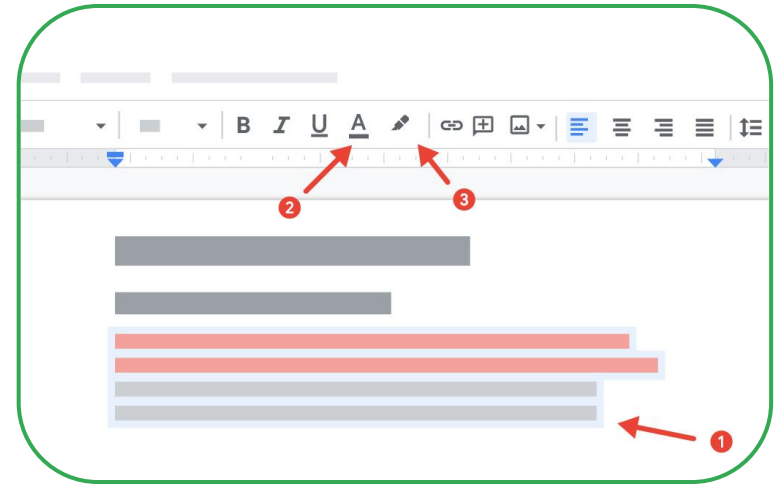
Tip: Double click on a word to select it. Triple-click on a word to select the whole paragraph.



Adding color

Add a touch of color to docs. Change the color of the text, and/or highlight it in any color.

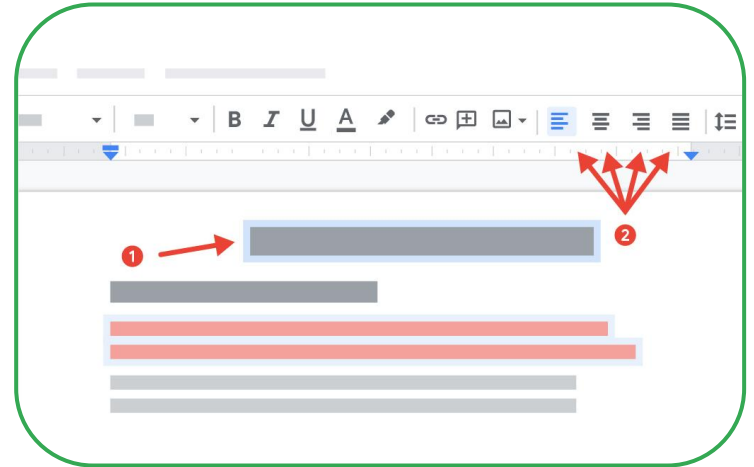
1. Select the text to customize: click and drag cursor through the text.
2. Click . Choose the desired color for the text.
3. Click . Choose the desired highlight color.



Change alignment

Change the alignment for the text. This means that choose whether the writing is on the left/right side of the screen, or in the middle. We have four options:

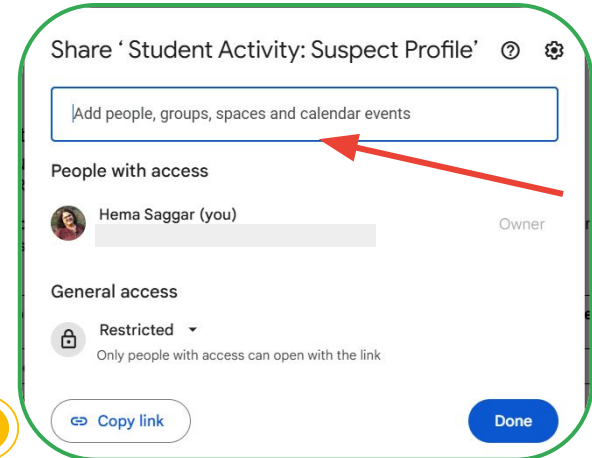
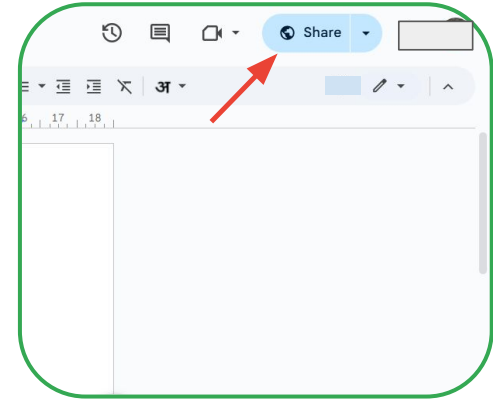
- Left align.
 - Center align.
 - Right align.
 - Justify.
1. Select the text to customize: click and drag cursor through the text.
 2. Click on the different alignment buttons to see what each one does.



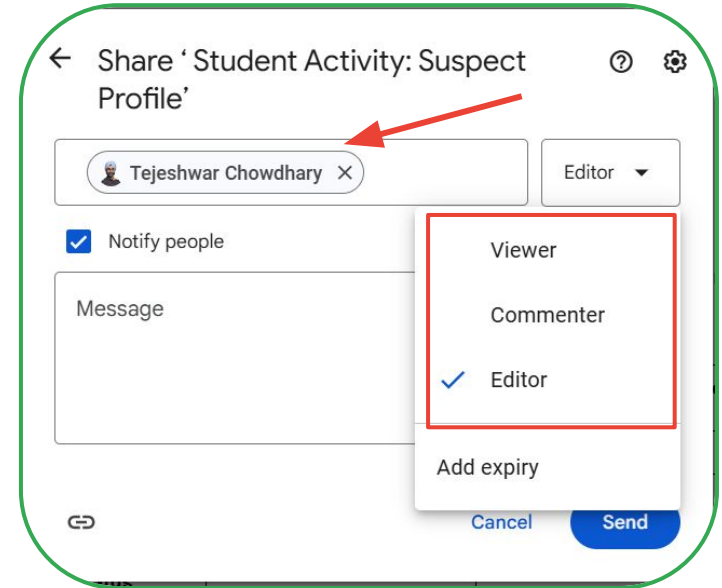
Sharing your doc with Specific people/group

To collaborate on a doc with a colleague, share the doc. Share it with specific people, or share it using a link. Let's share this doc with a specific person.

1. Click **Share** on the top right-hand side. This will open the Sharing window.
2. To share the doc with a specific colleague or student, click **Add people and groups**.
3. Type in the email address of your colleague/student. Can also add more than one email at a time.



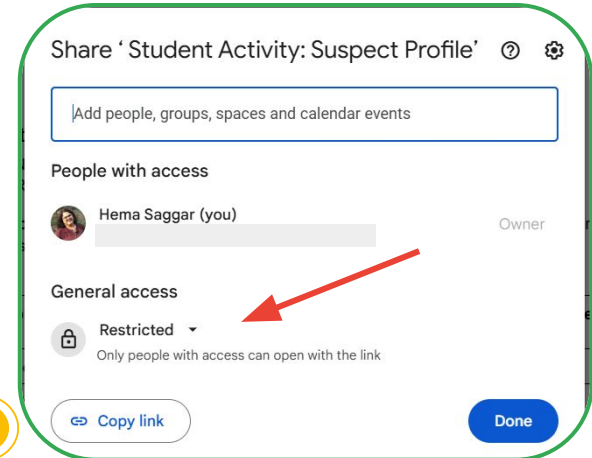
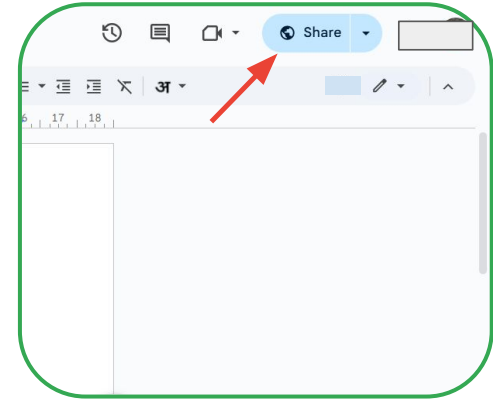
4. Click **Send**. See a confirmation popup, confirming that a person was added.
5. Select the mode of sharing the document.
 - a. Viewer - only view available
 - b. Commenter - suggestive and commenting can be done
 - c. Editor - rights provided to edit anything on the doc



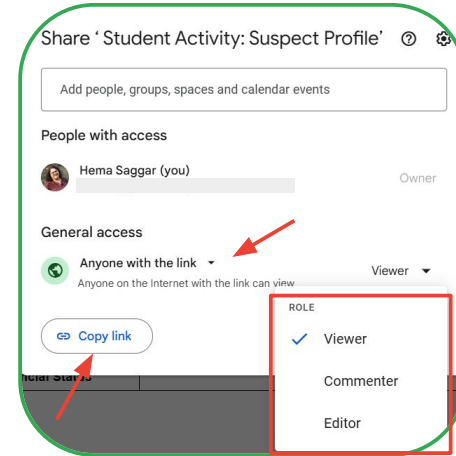
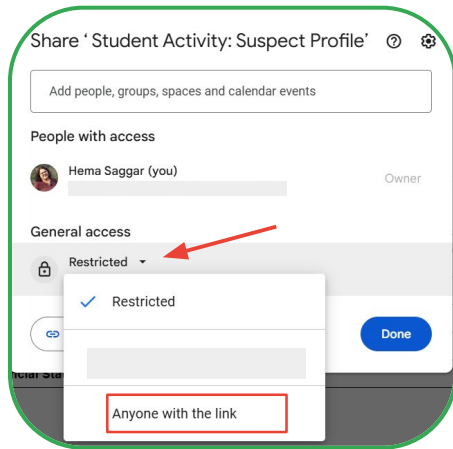
Sharing your doc using link

To collaborate on a doc with a colleague, share the doc. Share it with specific people, or using a link.

1. Click **Share** on the top right-hand side. This will open the Sharing window.
2. To share the doc using link, see for **General access**.
3. Click drop down arrow besides **Restricted**.



4. Click **Anyone with the link**. Select the role of sharing the document.
 - a. Viewer - only view available
 - b. Commenter - suggestive and commenting can be done
 - c. Editor - rights provided to edit anything on the doc
5. Click **Copy link**. Share it by any medium

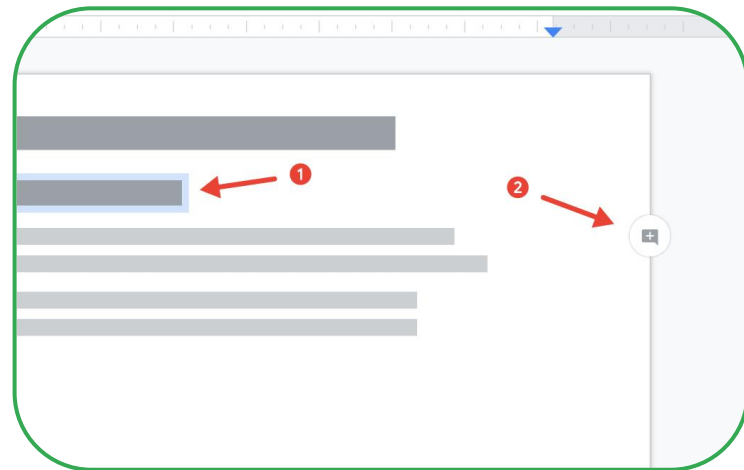


Adding comments to a doc

Comments are a useful tool when collaborating on a doc.

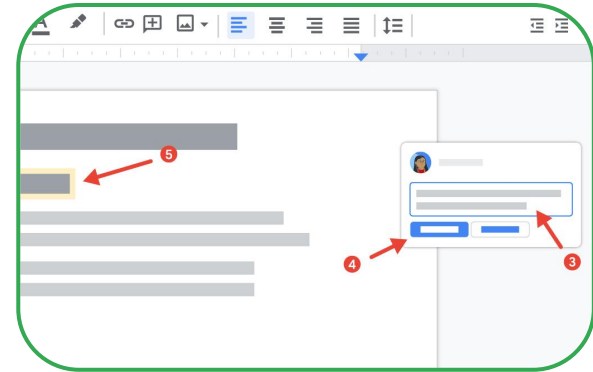
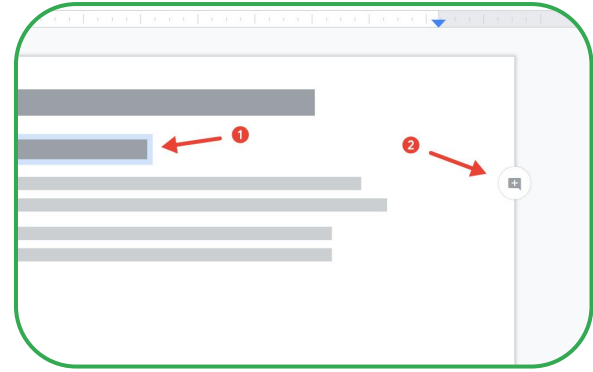
- Add comments to the side of the doc, without actually changing the content of the doc. This allows for collaborators to share ideas, add feedback, request changes etc. For example, giving some feedback on a lesson plan another teacher created - a comment is a great place to do this.
- In order to add a comment to a doc, first need to select some text.

Tip: Double click on a word to select it. Triple click on a word to select the whole paragraph.



1. Select any sentence from the text.
2. Click the add comment button that has now appeared on the right-hand side of the selected text.
3. Click **Comment** or **add others with @** and start typing comment.
4. Click **Comment** when done.
5. Comment will now be shown on the right hand side of the doc. The text the comment is attached to is highlighted in yellow.

Please note: Comments will only be visible to people who have been given Editing or Commenting permission.



Lesson complete - congratulations!

Now you know how to create a Google Docs file, name it and give it a title, add text in different styles and leave comments for other people. You can create docs that will be easy for students to read and navigate.

Challenge

Create a lesson plan outline using Google Docs. Make sure to include a title and 2-4 headings, in order to help students navigate through the doc. Share your plan with a colleague.



FAQs

- I can't find the 'Save' button. How do I save my work?
There is no save button because Google Docs save your work automatically every few seconds to your Google Drive. You'll never lose your work again.
- Can I work on my lesson plan if my internet at home is not working?
Yes! You can enable offline access in your Google Drive settings. This allows you to open, edit, and create documents and slides even without an internet connection. The files will sync automatically once you are back online.
- Can I edit my lesson plans on my smartphone?
Yes! You can download the free Google Docs apps for your Android or iOS device. This allows you to make quick edits, review student work, and present directly from your phone.
- I created a file, but now I can't find it. Where do my files go?
All Google Docs are automatically saved and organized in your Google Drive. Think of it as your digital filing cabinet. Just go to drive.google.com to find all your work.
- Can I work on my lesson plan if my internet at home is not working?
Yes! You can enable offline access in your Google Drive settings. This allows you to open, edit, and create documents and slides even without an internet connection. The files will sync automatically once you are back online.



Thank You!

