



CURATED STREAM 2

Research for Students

Using AI to learn, explore, and study smarter

Is AI useful for research?

Yes — when used thoughtfully. AI tools have become some of the best study partners students can have. They can explain hard concepts, help structure essays, summarise long readings, and quiz you for exams. The catch: you stay in charge of the thinking.

92%

of students used AI tools by 2025

Source: Anthropic Education research, 2025



Explain concepts

Ask for a topic in simple language, then deeper detail.



Plan and draft

Outline essays, structure arguments, brainstorm ideas.



Summarise readings

Paste a PDF or article and ask for the key points.

What you'll learn

Six short sections. Each one builds a skill you can use the same day — in homework, study, or class research.

1 Meet the chatbots

Claude, ChatGPT, Gemini, Copilot — how each one thinks.

2 Smarter prompts

Get better answers by giving better instructions.

3 Limits and accuracy

Spot when AI makes things up and check its work.

4 Read documents

Upload PDFs and notes — ask questions about them.

5 Other study tools

Perplexity, NotebookLM, flashcards and more.

6 Prompt library

Twenty ready-to-use research prompts you can adapt.

Section 1

Meet your AI study partners

Claude, ChatGPT, Gemini, and Microsoft Copilot — what each one is good at

Four chatbots, four different brains

All four are powered by large language models — but the model and training data are different, so the answers are too. Try the same question in two tools and compare.

Claude	ChatGPT	Gemini	Copilot
<i>Made by Anthropic</i>	<i>Made by OpenAI</i>	<i>Made by Google</i>	<i>Made by Microsoft</i>
Model: Fable 5 / Opus 4.8 / Sonnet 5 / Haiku 4.5	Model: GPT-5.6	Model: Gemini 3.5 Flash / Gemini 3.1 Pro preview	Model: GPT-5 family + web search
BEST FOR	BEST FOR	BEST FOR	BEST FOR
Long readings, careful explanations, Learning mode (Socratic guidance)	Creative work, essay drafts, Study Mode for step-by-step problem solving	Strong multimodal — text, images, video; built into Google search and Workspace	Web search with cited sources; built into Edge, Word, and Windows

Tip: bookmark all four in your browser. Open them in separate tabs and compare answers side by side.

Built for learning, not just answering

Two of the big tools now have dedicated student modes. Both guide you with questions instead of just handing over the answer — much better for learning.



Claude — Learning mode

Asks Socratic questions to help you work things out yourself. Anthropic's Claude for Education partners with universities — Northeastern, LSE, Champlain College and more.



ChatGPT — Study Mode

Launched July 2025. Walks you through problems step by step using guided dialogue instead of giving a finished answer. Great for maths and science practice.

What students actually use AI for

39.3% creating or improving educational content — practice questions, essay edits, summaries. *Source: Anthropic analysis of ~1M anonymised student conversations (2025).*

Getting set up

Most chatbots have a free tier that's plenty for student work. You'll need a signed-in account to keep chat history. Open each one in its own tab so you can compare.

claude.ai

Free tier; sign up needs an email. Age 13+ in NZ.

chatgpt.com

Free uses GPT-5.6. Sign up with email or Google.

gemini.google.com

Use your school or personal Google account.

copilot.microsoft.com

Free with Microsoft account; built into Edge and Word.



Heads-up: schools may have specific tools, login methods, or rules. Check with your teacher before signing up.

Section 2

Smarter prompts

Detail and context turn an OK answer into a great one

Better prompts = better answers

Watch how the same topic improves as the prompt gets more specific. Try this with photosynthesis — or any topic from class.

LEVEL 1 Broad	PROMPT <i>"What is photosynthesis?"</i>	WHAT YOU GET You get a textbook-style definition. Useful, but generic.
LEVEL 2 Focused	PROMPT <i>"Explain the most important steps of photosynthesis and how it helps plants grow."</i>	WHAT YOU GET Now the answer focuses on the steps and the growth link — what you actually need.
LEVEL 3 Tuned to you	PROMPT <i>"Explain the most important steps of photosynthesis and how it helps plants grow. Pitch it for a 14-year-old."</i>	WHAT YOU GET Plain language, simpler examples. Easier to learn from and remember.

A simple prompt recipe

Mix these five ingredients and your prompts level up. You don't need them all every time — but the more you add, the more useful the response.



Role

Tell it who to be. 'Act like my history tutor.'



Task

Say exactly what you want. 'Explain', 'compare', 'summarise', 'plan'.



Context

What's the subject? Year level? Word limit? Audience?



Examples

Give a sample or template if you have one.



Format

Ask for bullets, a table, an outline, or a paragraph.

ALL FIVE IN ONE PROMPT

"Act like my Year 11 history tutor (R). Outline (T) a 600-word persuasive essay on whether the Treaty of Waitangi was fairly translated (C). Use my three points: language differences, intent, and consequences. Format as introduction → three body paragraphs → conclusion (F)."

Section 3

Limits and accuracy

Spot when AI is wrong, and check before you cite

When AI sounds confident but is wrong

Large language models generate words that look plausible. Sometimes the words happen to be wrong — fake quotes, invented sources, made-up dates. This is called a hallucination. It happens to every model.

Common slip-ups

- Invented citations — book titles or authors that don't exist
- Broken or made-up URLs
- Wrong dates, statistics, or percentages
- Confident-sounding answers in topics where it has thin training data
- Mixing real facts with subtle errors

How to verify

- Ask the model to cite its sources, then check them
- Cross-check with Gemini or Copilot (both search the live web)
- Use Perplexity — it shows sources for every claim
- Verify facts in your textbook, library, or an .edu / .govt.nz site
- If you can't verify it, don't put it in your assignment

Recent events: which tool to use

Every model is trained on data up to a cutoff date. For current-events questions — election results, this morning's news, today's OCR — use a tool that can also search the live web.

Tool	Live web search?	Best for current-events research
Gemini	Yes — built into Google Search	Up-to-the-minute news, sports, market data
Copilot	Yes — sources cited inline	Web research with verifiable citations
ChatGPT	Yes — most plans include web browsing	General research with sources
Claude	Yes — web search available in 2026	Long reading + reasoning; still verify dates
Perplexity	Yes — built around live search	Citation-first answers



Old textbook line dropped in 2026

You may still see warnings online that 'ChatGPT only knows up to 2021'. That hasn't been true for years — every current model has 2024–2025 knowledge. Always check the date on any tutorial you read.

Trust, but verify

Try this exercise. Ask any chatbot: "Give me 5 sources on the Battle of Crete in WW2 — at least three accessible online." Then check the sources.

1

Copy each URL into your browser

Does the page exist? Is it the right page?

2

Check book titles in your library catalogue

Te Puna, your school library, or WorldCat.

3

Match author names against the publisher

Does the publisher list the same book under that author?

4

Compare claims against a second source

If two sources disagree, dig deeper.

5

Cite the source, not the chatbot

Reference the book/website you actually used.

Section 4

Reading and writing with AI

Upload PDFs, summarise readings, draft essays — keep your own voice

Upload a PDF, then ask questions

All four chatbots accept document uploads in 2026 — PDFs, Word docs, slides, even images. Click the paperclip in the prompt box, then ask anything about the file.

Try these on your next reading

Summarise

"Give me a one-page summary of this article in plain English."

Extract key points

"List the main arguments and the evidence behind each one."

Build a study guide

"Turn this chapter into 10 short-answer questions with model answers."

Explain a tricky part

"Explain section 3 of this paper to a Year 11 student."

Compare two readings

"How do these two articles disagree about the cause of WW1?"

Hand it a photo or a diagram

Gemini, Claude, ChatGPT, and Copilot can all read images now. Snap a diagram from a textbook, paste in a chart, or take a photo of handwritten notes — and ask what's going on.



Charts and graphs

"Describe this graph and explain the trend." Useful for science labs and economics.



Maths problems

Take a photo of an equation — ask for a step-by-step walkthrough. Use Study Mode for guided practice.



Diagrams

"Walk me through what each label on this diagram of the heart means."



Photos and artefacts

Geography, biology, art history — upload an image and ask about what you're seeing.

Section 5

More study tools

Beyond the chatbots — focused tools for specific jobs

Perplexity — answers with citations

Perplexity is a research-first chatbot. Every claim has a numbered source you can click through to. Great when you need to cite what you find.



Web search

Type a question — Perplexity searches the live web and gives a written answer with footnoted sources.



Summarise pages

Install the browser extension — open any article and click 'Summarise' for an instant overview.



Focus the search

Narrow Perplexity to just this page, just this domain, or the whole web — perfect for trustworthy sites.

Try this

Open a long article you've been assigned. Click the Perplexity extension. Click 'Summarise'. Then ask a follow-up like "What was the main cause discussed?" or "Who is the author quoting?". Set the focus to just this page so the answer stays grounded in your reading.

A study-tool tasting menu

Different tools shine at different jobs. Try one or two — see what fits your study style.

NotebookLM

Google

Upload sources — readings, lectures, notes — get summaries, podcasts, study guides grounded in those files.

Wolfram Alpha

Wolfram

Step-by-step maths, physics, chemistry — show working, not just answers.

Otter.ai

Otter

Records lectures and meetings, then transcribes and summarises them automatically.

Grammarly

Grammarly

Checks grammar, tone, and clarity in essays. Free tier covers most student needs.

QuillBot

QuillBot

Rephrases sentences. Useful to rewrite in your own voice — but always read what it produced.

Wisdolia

Wisdolia

Turns PDFs, articles, and YouTube videos into flashcards for spaced-repetition revision.

Frontier model lineup in July 2026: Claude Fable 5 / Opus 4.8, GPT-5.6, Gemini 3.5 Flash, Llama 4 Scout (open-weight). All have current knowledge of the world.

Section 6

Prompt library

Twenty starting prompts you can adapt for any subject

Twenty prompts to try this week

Copy a prompt, fill in the blanks, and run it in your favourite chatbot. Tweak until you get what you need.

- 1 How does ____ apply in real-life situations?
- 2 Discuss the causes and effects of ____
- 3 Explain the impact of ____ on ____
- 4 Discuss the major themes in ____
- 5 Analyse the symbolism in ____
- 6 Compare and contrast ____ and ____
- 7 Help me find credible sources for an essay on ____
- 8 Help me understand the basics of ____ for my class
- 9 Help me analyse a study on ____
- 10 Write 10 short-answer questions on ____
- 11 Suggest 10 educational YouTube channels covering ____
- 12 Make a set of flashcards for ____
- 13 Suggest 5 Chrome extensions to help me study ____
- 14 Plan a study schedule from today until ____ for ____
- 15 Suggest essay topics on ____, focused on ____
- 16 Summarise and format these notes into a clean handout
- 17 What are possible solutions to ____? Use ____ as context
- 18 Predict the future outcomes of ____
- 19 Debunk common myths about ____
- 20 Explore the latest innovation in ____

You're in charge

AI is a brilliant study partner — but it's only a partner. The thinking, the judgement, the curiosity, and the ideas are yours. Use these tools the same way you use a calculator or a dictionary: a shortcut for tasks, not a substitute for learning.



Compare answers

Run the same prompt in two tools. Differences spotlight where to dig deeper.



Always verify

Check sources, dates, and stats — especially before citing in an assignment.



Keep your voice

Use AI to plan and refine. Write the words yourself so your work is yours.



Follow school rules

Some assignments allow AI, some don't. Ask if you're not sure.



Keep exploring

Try one prompt today. Then another tomorrow.

Nelson AI Sandbox · aisandbox.org.nz