

MEET LEA

Learn and Explore with AI



Agenda

1

Introduction

2

Accelerate planning

3

Enrich learning

4

Empower exploration

5

Wrap-up & next steps

Introduction

AI and its place in the practice of planning,
enriching and empowering learning.



Ask anything



Introduction

First, a quick question to get us thinking.

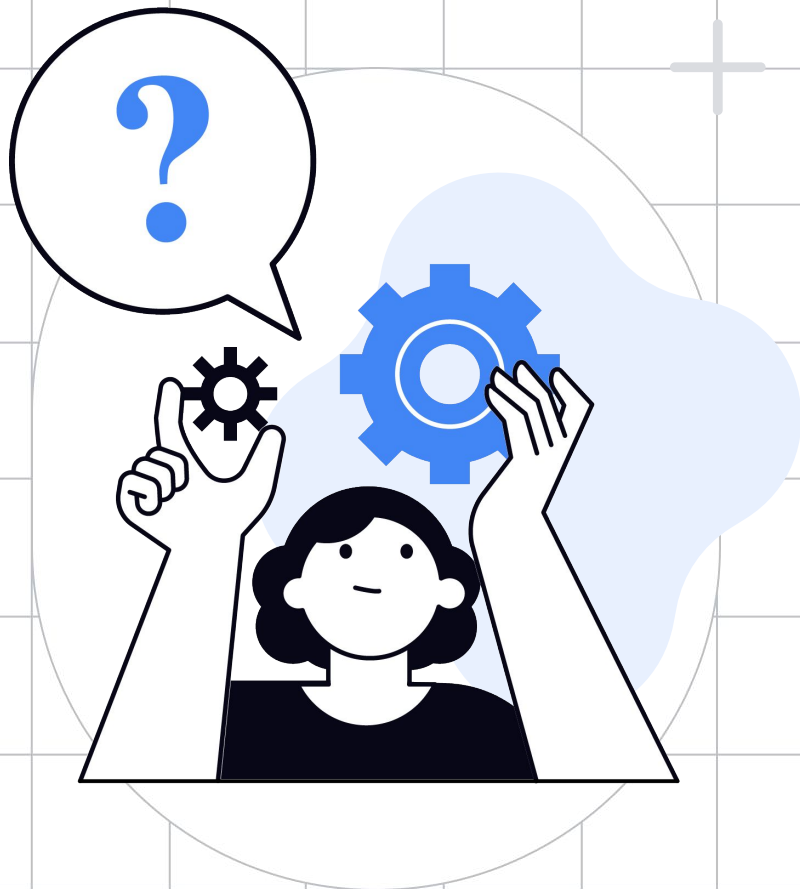


What percentage of teachers have used generative AI in their work?

26%

48%

87%



Supporting learning with AI

AI can support educators with productivity and planning, while enriching learning experiences to make them more engaging.

And once students understand its potential, it opens new paths for exploration and personalized learning.



Introduction

What do we mean when we say AI?

Introduction



Think back to the
humble calculator...

Circa 1971



Introduction



We can adopt a
similar way of
thinking with AI

Circa 1971



Using AI Responsibly



1

AI is technology, not human. It cannot feel emotions.

2

AI is not a replacement for critical thinking.

3

AI can make mistakes and even make things up.

Introduction

Where an AI policy can help

Having an **AI Policy** can give clear guidance about when and how students can use AI on assignments.

Consider 3 levels of AI use that can change depending on the assignment.



Restrictive

AI tools are prohibited for the assignment, and all work must be the student's original creation.



Moderate

Students can use AI tools only for specific parts of their assignments, such as brainstorming or initial research.



Permissive

Students can freely utilize AI tools to assist in their assignments, such as generating ideas, proofreading or organizing content.

Adapted from the World Economic Forum "[7 Principles on Responsible AI Use in Education](#)" (2024)

Three key areas AI can support learning



Accelerate planning

Refine plans & spark new ideas quickly



Enrich learning

Make activities more engaging

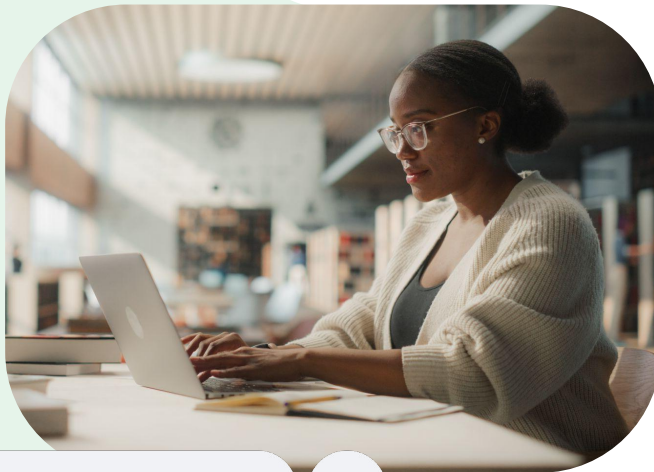


Empower exploration

Support youths in independent learning

Accelerate planning

Google's AI tools can save you time by organizing information, answering questions, and generating ideas to build on.



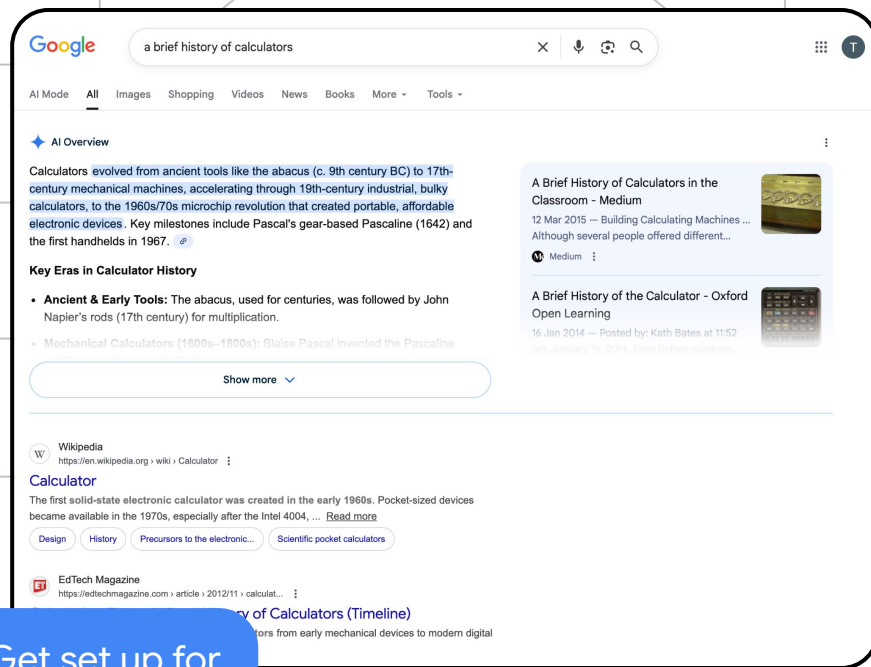
Ask anything



How to access AI Overviews

On your computer or mobile device:

1. Open Google Chrome.
2. Open a new tab and search just like you would when asking Google a question.
3. When our systems determine that generative AI can be especially helpful – for example, when you want to quickly understand information from a range of sources – you will find an AI Overview at the top of the Search page.

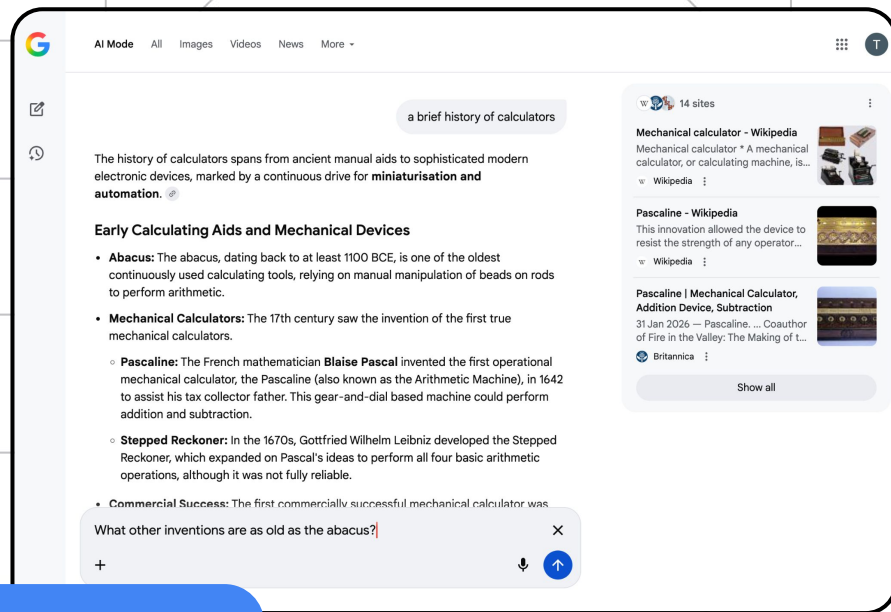


Get set up for
the module

How to access AI Mode

You can access AI Mode in four ways on both your Computer and Mobile Device:

- Go to google.com/ai.
- Go to www.google.com, enter a question in the Search bar, and press AI Mode.
- Scroll to the bottom of an AI Overview and select Dive Deeper in AI Mode.
- On the Google app, tap AI Mode on the home screen.



Get set up for
the module

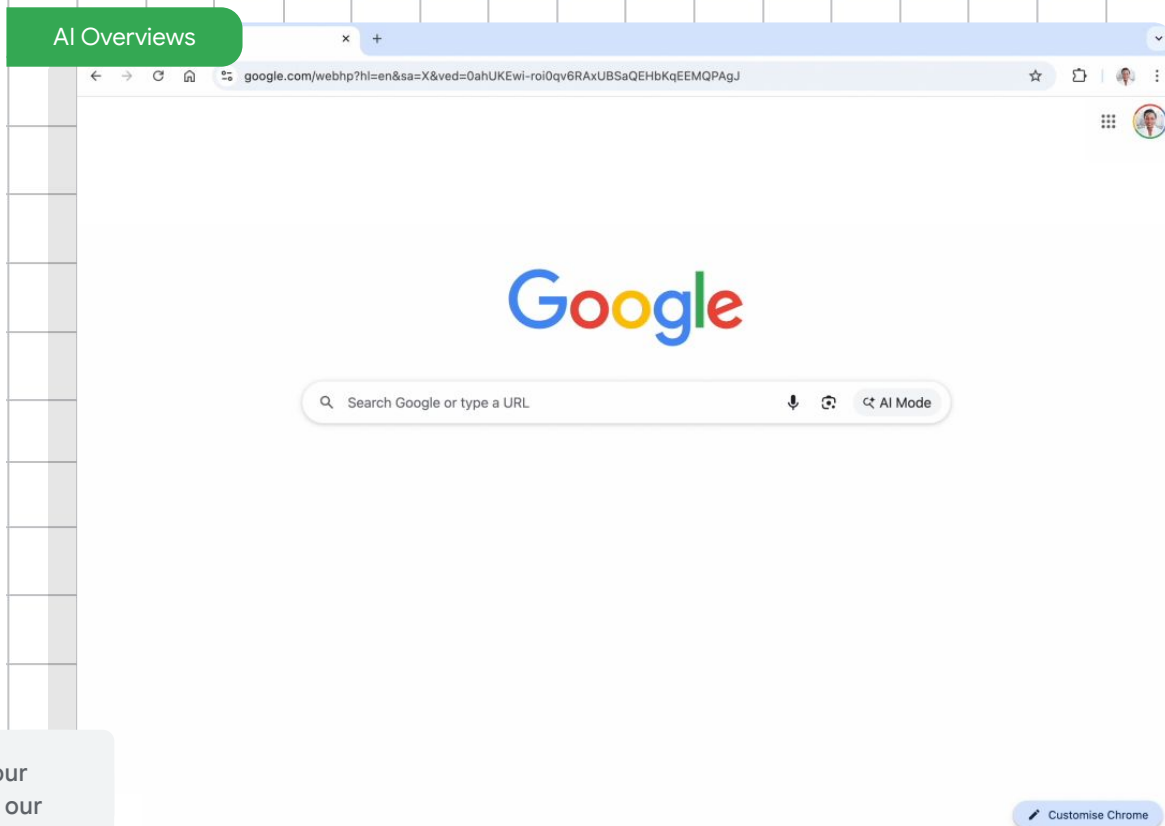
Accelerate planning

Begin your planning with AI Overviews

Use Google Search to look
for something related to
your lesson.

AI Overviews will provide a
clear, structured snapshot
of key information.

You'll find AI Overviews in your
Google Search results when our
systems determine that generative
AI can be especially helpful.



Accelerate planning

Dive deeper with AI Mode

AI Mode is then ready for all
your follow-up questions.

It understands the context of
each one, organizing
information into clear,
structured breakdowns with
links to explore the web.

Enter AI Mode by selecting it at the
top of the Search results screen, or
by tapping Dive Deeper in AI Mode
at the bottom of an AI Overview.

Google

The screenshot shows a Google search interface with a green 'AI Mode' header at the top. The search query is 'what are some real world examples of thermodynamics'. The results are organized into sections: 'Photosynthesis', 'Second Law (Entropy and Direction of Heat Flow)', and 'Third Law (Absolute Zero)'. Each section contains a bulleted list of examples. On the right, there are three search snippets: 'Thermodynamics: Laws & Their Practical Applications' from GK Publications, 'What are some real life examples for laws of thermodynamics?' from Quora, and 'The laws of thermodynamics (article)' from Khan Academy. At the bottom, there is a button labeled 'Dive deeper in AI Mode' and a disclaimer: 'AI responses may include mistakes. Learn more'.

AI Mode

google.com/webhp?hl=en&sa=X&ved=0ahUKEwi-roI0qv6RAxUBSaQEhbkQeEMQPAgJ

what are some real world examples of thermodynamics

- **Photosynthesis:** Plants convert solar (light) energy into chemical energy stored in glucose molecules, demonstrating energy transformation in nature.

Second Law (Entropy and Direction of Heat Flow)

- **Refrigerators and air conditioners:** These appliances use external work (electricity) to force heat from a cooler space (inside the fridge/room) to a warmer space (outside the fridge/room), a process that doesn't happen spontaneously in nature.
- **A hot cup of coffee cooling down:** Heat naturally flows from the hot coffee (higher temperature) to the surrounding air (lower temperature) until both reach thermal equilibrium. The reverse process (a cold cup of coffee spontaneously heating up in a normal room) is impossible without external energy.
- **Melting ice:** An ice cube absorbs heat from a warmer drink, causing the ice to melt and the drink to cool down. The heat transfer always moves from the warmer object to the colder one.
- **Friction:** When you rub your hands together on a cold day, mechanical energy is converted into heat, but some energy is always lost to the surroundings as unusable waste heat, demonstrating that energy conversions are never 100% efficient.

Third Law (Absolute Zero)

- **Cryogenics:** This field studies the behavior of materials at extremely low temperatures, approaching absolute zero (0 Kelvin), where particle motion minimizes and entropy approaches a constant minimum value.
- **MRI machines:** The superconducting magnets in MRI machines require extremely low temperatures (near absolute zero) to function with zero electrical resistance, an application of the third law's principles in advanced technology.

Dive deeper in AI Mode

AI responses may include mistakes. [Learn more](#)

Thermodynamics: Laws & Their Practical Applications
20 May 2025 — Thermodynamics: Laws & Their Practical Applications. ... Thermodynamics is on...
GK Publications

What are some real life examples for laws of thermodynamics? - Quora
10 Sept 2016 — * Soda gradually losing its carbonation, and the sugar in it staying dissolved. * Ice cubes in a drink melting an...
Quora

The laws of thermodynamics (article) | Khan Academy
Introduction. What kind of system are you: open or closed? As it turns out, this is a physics...
Khan Academy

Show all

AI Overviews & AI Mode

Type

Speak



AI Mode

Snap a picture

Accelerate planning

Use it in a way that
works for you

No special phrasing or
formatting is required with AI
Overviews and AI Mode.

AI-powered Search
understands your question,
however you want to ask it.

Accelerate planning

AI Overviews & AI Mode

Plan responsibly and accurately

AI Overviews and AI Mode are grounded in the same **high quality information** as Google Search.

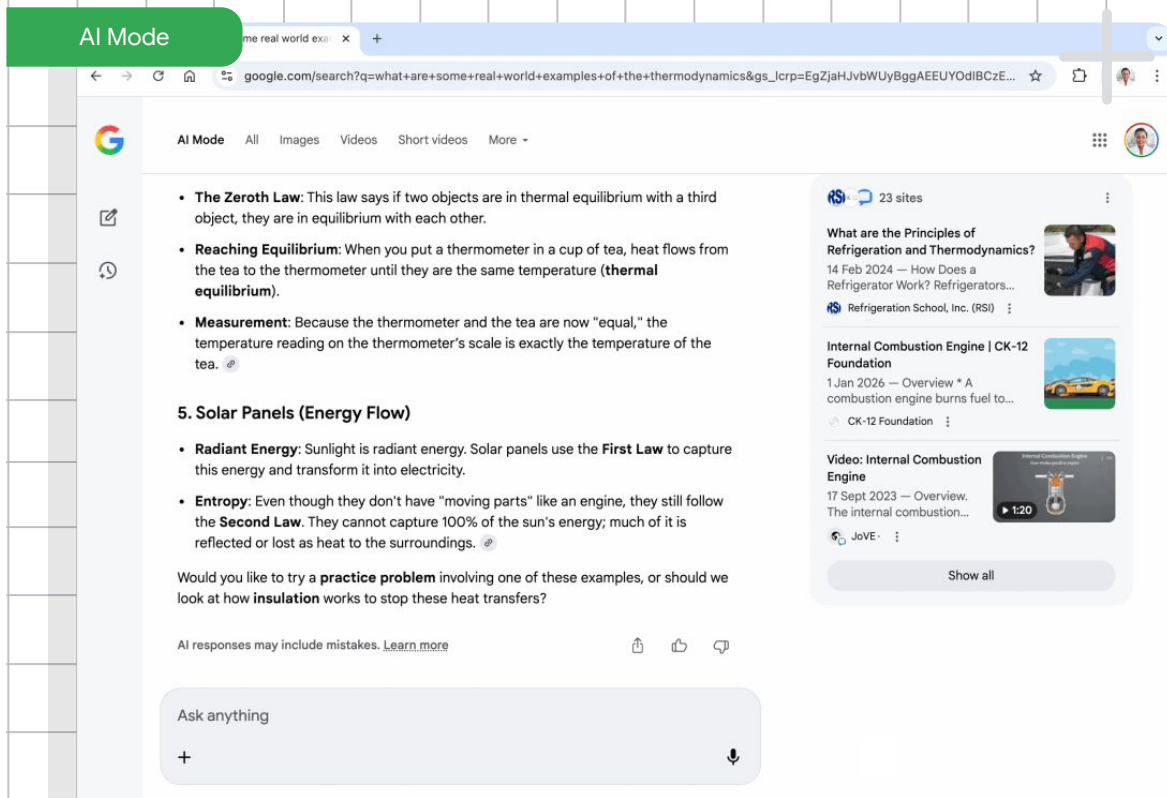
 Corroborating links are provided so you can **check the sources** and get a clear view of where the information is coming from.

Accelerate planning

Turn your research
into workable plans

When you're ready, ask AI
Mode to turn your research
into a **cohesive plan**.

Use the **file upload feature** to
provide a template or source
material for AI Mode
to build on.



Tap the **+** icon to add a file,
or simply drag and drop it
into the search bar.

Accelerate planning

Activity

Try it for yourself

Create an activity, lesson or program outline on one of these subjects.

Use [AI Overviews](#) and [AI Mode](#) to get ideas, organize your thinking & draft your plan.

[Choose a subject to begin.](#)



Real world applications of quadratic equations



The space race to Mars



Shakespeare's tragedies



Key inventions that enabled global trade and navigation

Here's a reminder of how to use the tools

Start with
AI Overviews

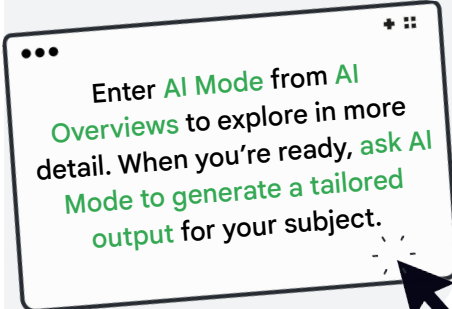
1



Search your **chosen topic in Google Search**. Review the AI Overviews summary to get ideas for your approach.

Dig deeper with
AI Mode

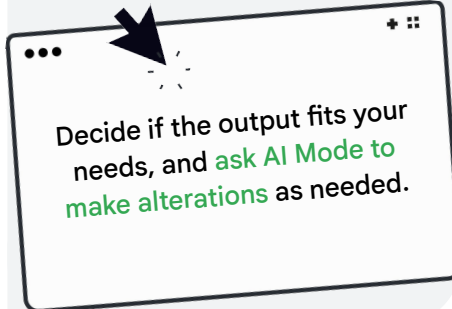
2



Enter **AI Mode** from **AI Overviews** to explore in more detail. When you're ready, **ask AI Mode to generate a tailored output** for your subject.

Refine
& adjust

3



Decide if the output fits your needs, and **ask AI Mode to make alterations** as needed.

Enrich learning

Google's AI tools can be used in the classroom to enrich lessons and encourage exploration at each student's pace.



Ask anything



How to access Google Lens in Chrome

On your computer:

1. Open Google Chrome.
2. Open a new tab and go to a website.
3. At the top right select More. ⋮
4. Select  Search with Google Lens.
5. Use your cursor to select anything on your screen to search.
6. After making your selection, you will find your search and AI Overview on the right side of the screen.
7. You can ask more questions about it by entering additional search terms or keywords in the search bar.

Get set up for
the module



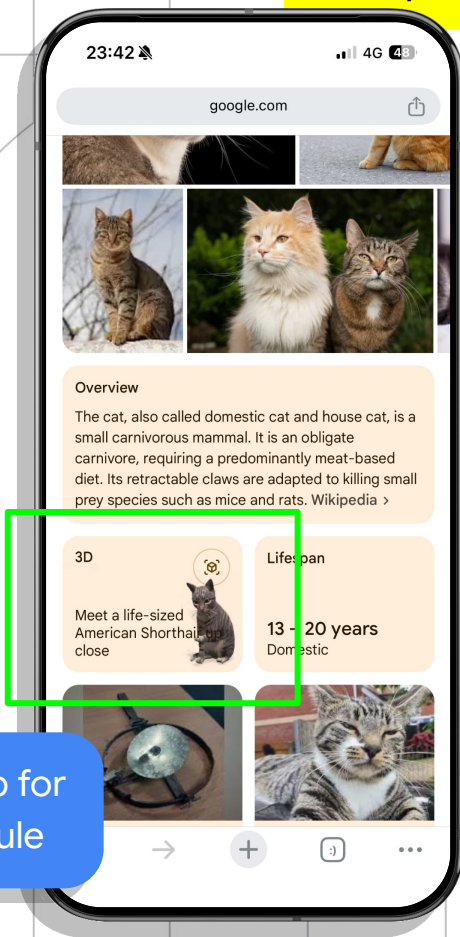
How to access Google AR

On your mobile device:

1. Go to google.com or open the Google app.
2. Search for an animal, object, or place.
3. If a 3D result is available in your Search result, tap View in 3D.
4. To interact with the 3D result in AR, tap View in your space.
5. Follow the on-screen instructions.

Not all animals, objects and places are available in all countries. Go [here](#) to see what's available in your country.

Get set up for
the module



Google Lens in Chrome

Enrich learning

Interact with resources
& get responses that
support learning

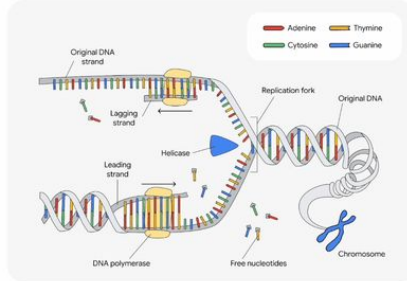
Students can search anywhere
on their screen with Google
Lens in Chrome by simply
highlighting text or an image
directly.

They'll get an AI Overview,
grounded in high-quality
information from the web.

Click the URL on your Chrome
browser page, then select Ask
Google About This Page. 📷

DNA Replication: Duplicating Life's Blueprint

DNA replication is the fundamental process by which a DNA molecule is duplicated, producing two identical copies from a single original DNA molecule. This crucial biological process occurs in all living organisms and is the basis for biological inheritance. It ensures that when a cell divides, each new daughter cell receives a complete set of genetic instructions.



The Mechanism of Replication

DNA replication is a semi-conservative process, meaning that each new DNA molecule consists of one original (parental) strand and one newly synthesized (daughter) strand. The entire process can be broken down into several key steps:

1. Unwinding the Double Helix

Replication begins at specific points called **origins of replication**. An enzyme called **helicase** breaks apart the DNA double helix, breaking the hydrogen bonds

AI Mode

Enrich learning

Students explore at their own pace

Students can then use AI Mode to dive deeper into what they've discovered, asking complex questions to get clear explanations and build on their understanding.

AI Mode grounds its responses in high quality information from across the web, with links to explore further.

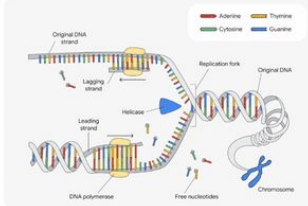
Select AI Mode from the top of your AI Overview to ask follow up questions.

Topic 2.7: DNA Replication

https://www.mrgscience.com/topic-2.7-dna-replication-transcription-and-translation.html

DNA Replication: Duplicating Life's Blueprint

DNA replication is the fundamental process by which a DNA molecule is duplicated, producing two identical copies from a single original DNA molecule. This crucial biological process occurs in all living organisms and is the basis for biological inheritance. It ensures that when a cell divides, each new daughter cell receives a complete set of genetic instructions.



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1. Unwinding the Double Helix

Replication begins at specific points called **origins of replication**. An enzyme called **helicase** unwinds and separates the two strands of the DNA double helix, breaking the hydrogen bonds.

AI Overview

The image is a diagram of DNA replication, which is the process by which a cell makes a copy of its DNA. This process is essential for cell division and the transmission of genetic information.

- The process begins when the enzyme **helicase** unwinds the double helix, creating a replication fork.
- DNA polymerase then adds complementary free nucleotides to each of the original strands.
- The leading strand is synthesized continuously in the 5' to 3' direction.
- The lagging strand is synthesized discontinuously in short segments called **Okazaki fragments**, which are later joined together.

Solved Your template strand of DNA is:
5' TAGCTTACGAGGACC ...

20 Mar 2021 — 1. DNA is always synthesized in the 5'-to-3' direction, meani...

Ask a follow up

AI Mode

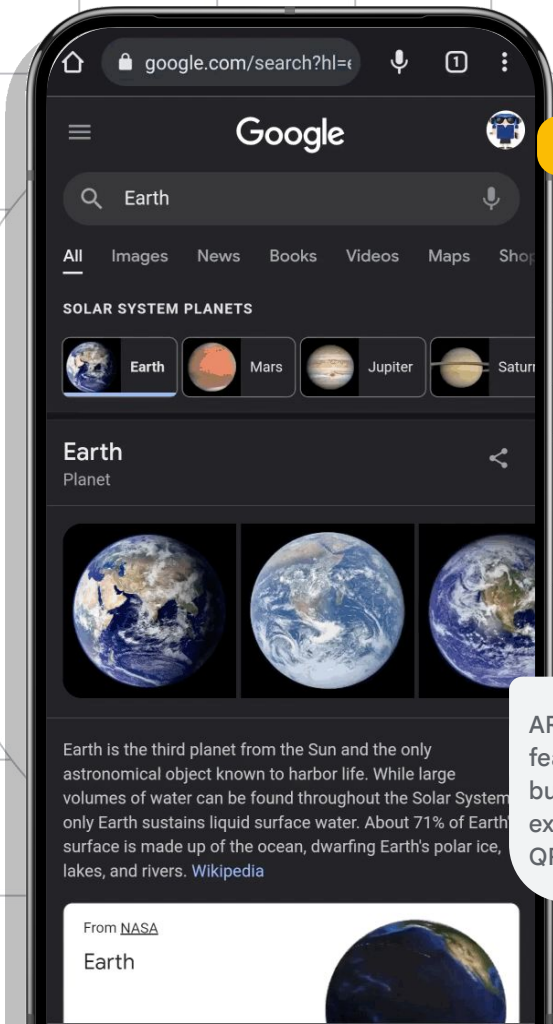
Enrich learning

Create custom learning materials

Students can turn their research & notes into **custom study materials** like quizzes & study guides.

By uploading their own notes or course content to AI Mode, they can ground materials in what's **most relevant to them**.

Click the **+** icon to add a file, or simply drag and drop it into the search bar.



Google AR

Enrich learning

Bring the whole world into the room

When words aren't enough, use **Google AR** to make big ideas come to life, right in front of your students.

AR (Augmented Reality)  features require a mobile device, but many 3D models can also be explored on a computer. Scan the QR code to see what's available.



Empower exploration

Google's AI tools can help your students explore topics independently, in ways that work for them and support their needs.



Ask anything

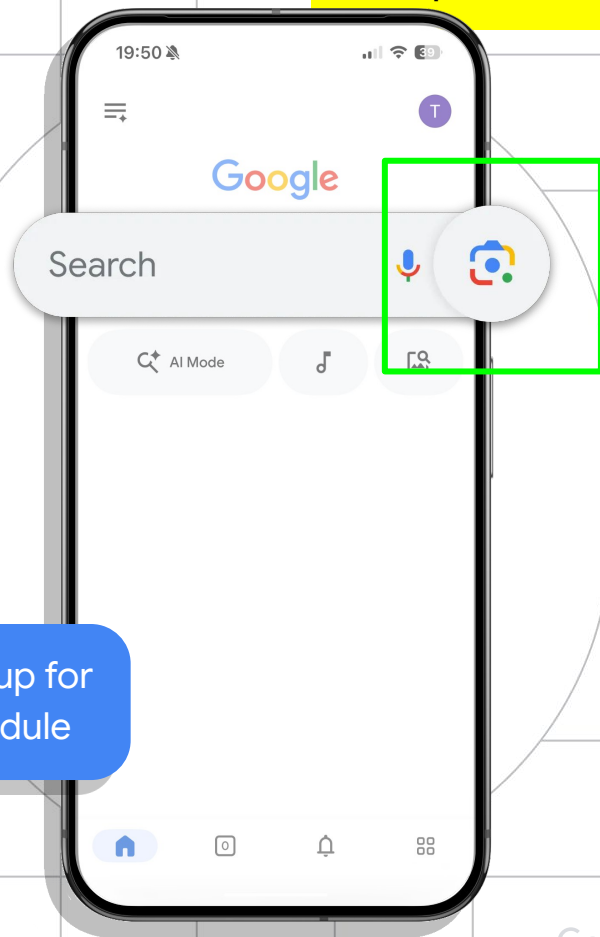


How to access Google Lens

On your mobile device:

1. Open the Google or Chrome app.
2. Open a new tab.
3. In the search bar, tap the Google Lens icon. 📷
4. Tap the 🔍 button to take a photo of the object you want to search.
5. Or to upload an existing image from your device, select from your images.
6. After adding your photo, you can ask more questions about it by entering additional search terms or keywords in the search bar.

Get set up for
the module



Empower exploration

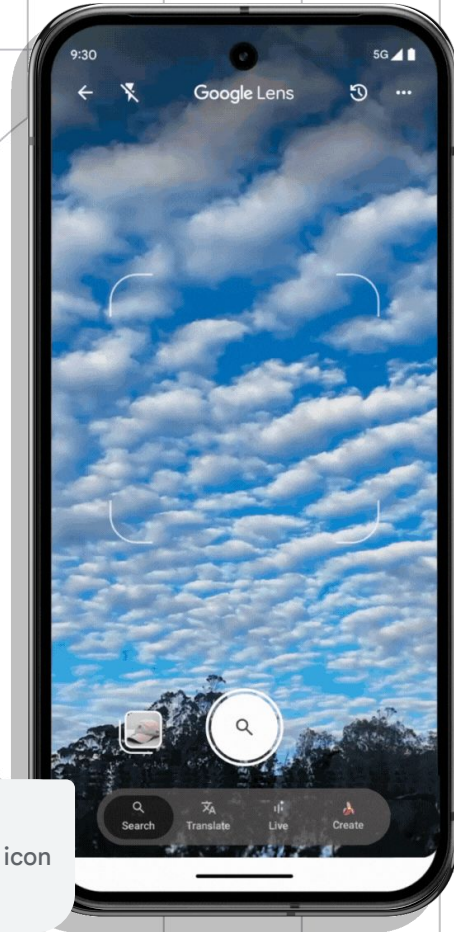
Use Lens to discover the world

Google Lens helps students **explore what they see around them**, from identifying a cloud in the sky to learning about artwork in an exhibition.

It can also **translate text in real time**, helping them explore & ask questions wherever they are in the world.

Google Lens

To open Lens and search with your camera, click on the  icon in the Google App.



Google

Empower exploration

Use Lens to learn at home

Students can also use Lens to support learning at home. They start by scanning a problem to get **step-by-step explanations** designed to help them work towards a solution.

From there, students can use AI Mode to ask **clarifying questions** and surface insights that **build on their understanding**.

Google Lens

You can enter AI Mode from your Google Lens result by tapping Dive Deeper in AI Mode at the bottom of an AI Overview.

Dive deeper in AI Mode



Empower exploration

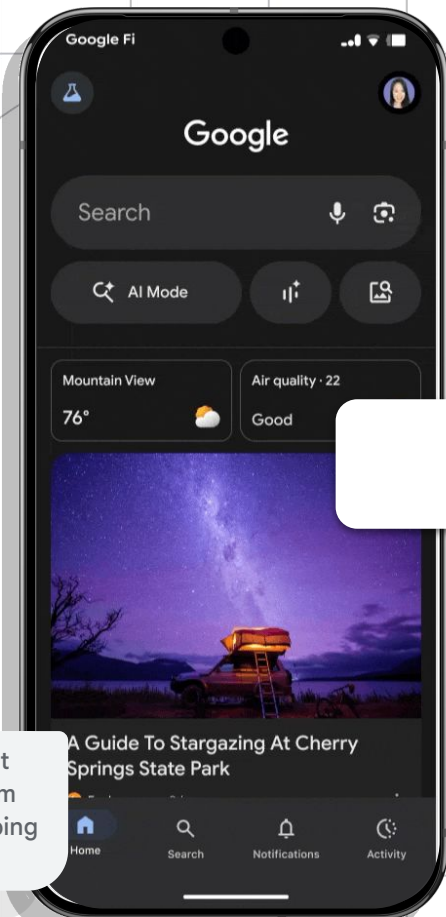
Use Lens to start a live conversation about what you find

Students can ask questions about a tricky concept and get **instant audio responses**, with helpful on-screen content & links from across the web. They can use their cameras to ask questions about what's in front of them.

It turns curiosity into a **two-way conversation**, helping them learn and explore as they go.

Search Live

You can start a Search Live chat with the camera on directly from Lens in the Google App by tapping Live 



Google

Try it for yourself

Create an independent activity that lets students use AI to support learning on their own. Here are a few to get you started.

Use
Google Lens



Go for a walk with a friend and use **Google Lens** to identify landmarks or street art. See what stories or history you can uncover about your local area.

Use
Google Lens



Catalog the **plants** around your home and **identify** which are native to your area and how they support local wildlife.

Use
Search Live



Investigate **how food choices affect a training plan** and build a food plan for your chosen sport. Start by **scanning a meal or snack** and asking questions like "how will this fuel my exercise."

Wrap-up & next steps

Reflecting on what we've learned and
where to go from here.



Ask anything



Wrap up & next steps

The practice of education is evolving

AI can help support learning experiences in and out of the program.



Accelerate planning

Refine plans & spark new ideas quickly.



Enrich learning

Make activities more engaging.



Empower exploration

Support independent learning and multimodal experiences

Wrap up & next steps

Think back on today's tools

Which of them feel most useful to you and your students?



**AI
Overviews**



AI Mode



**Study Guides
& Quizzes**



Lens



AR



Wrap up & next steps

Continue your journey

Scan the [QR code](#) to access your guide to additional AI resources that you can use after this session.

Stay curious, explore at your own pace, and return to today's tools when you're ready to experiment further!



Thank
you



Any
questions?



+

+