

AI for learning

By
MeteSys Corporation

Main Goal

Encourage students to:

- See AI as a future career skill
- Understand practical uses of AI
- Feel confident they can learn it
- And become curious enough to explore further

CONTENT VS PURPOSE

Visual Slides

Live Demonstrations

Stories / Examples

Interactive Questions

Career Insights

Ethical Discussion

Hands-on Activity

Future Pathways

Attention & explanation

Excitement & realism

Emotional connection

Engagement

Motivation

Balanced understanding

Participation

Action after seminar

Time Line

0. Something about the presenter – 3 Minutes
 1. What is Intelligence – 3 Minutes
 2. What is A.I. – 3 Minutes
3. Peanut Butter and Jam (B/R) – 10 Minutes
 4. A.I. in an Abstract – 40 Minutes
 5. Exercise Quiz – 10 Minutes
 6. The Summary – 10 Minutes
 7. Next Teaser – 3 Minutes
 8. Q&A – 10 Minutes

Time Line

0. Something about the presenter – 3 Minutes

Vision Statement

**METESYS OFFERS TECHNOLOGY FOCUSED
INTEGRATED AI PRODUCTS & SERVICES (IAIPS)
TO STREAMLINE NEED FOR DOMAIN SPECIFIC
EXPERTS, FOR SOFTWARE & TOOLS, AND FOR
TECHNOLOGY INFRASTRUCTURE TO OPTIMIZE
COST OF DOING BUSINESS.**

Time Line

1. What is Intelligence – 3 Minutes

What is intelligence?

Intelligence is broadly defined as the mental capacity to acquire and apply knowledge, learn from experience, reason through abstract concepts, and adapt to new situations. Rather than a single skill, it is a complex toolbox of cognitive abilities.

Let's try by making a Peanut Butter and Jam Sandwich.

Shall We?

Time Line

2. What is A.I. – 3 Minutes

AI by Definition

AI stands for **Artificial Intelligence**. It refers to computer systems or machines designed to perform tasks that typically require human intelligence, such as learning, reasoning, problem-solving, understanding language, and making decisions.

Artificial Narrow Intelligence (ANI): Also known as "Weak AI." This is the only type we have today. It is designed to excel at one specific task (e.g., a chatbot like ChatGPT, a chess-playing engine, or a self-driving car).

Artificial General Intelligence (AGI): A theoretical, future stage where a machine would have complete human-level cognitive capabilities, allowing it to learn and reason across any domain just like a person.

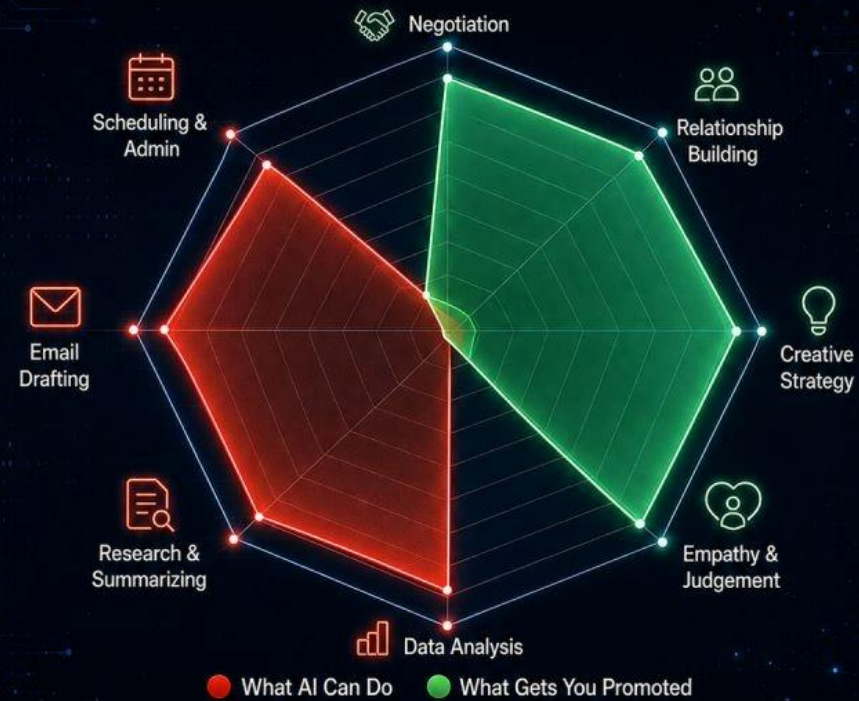


= AI RULE
AVERAGE STUDENTS USE
AI TO GET ANSWERS. TOP
STUDENTS USE AI TO
TRAIN THEIR BRAIN.

~~AI Will Replace Your Job~~

What AI can do vs. what actually gets you promoted

AI ForLeaders.com



+78M
Net new jobs by 2030
— World Economic Forum

70%
of skills stay relevant
— McKinsey

+22%
growth in human-AI roles
— Harvard Business Review



The skills AI masters are not the skills that pay you.
Spend more time on **judgement, relationships, and strategy.**



Become better at AI in just 1 minute a day. Sign up free now → aiforleaders.com

Time Line

3. Peanut Butter and Jam (B/R) – 10 Minutes

 = MAKE OR BREAK

AI SANDWICH

LEARNING OUTCOMES

- Explain what AI is.
- Identify common AI applications.
- Understand why AI matters.
- Recognize opportunities and challenges.
- Use AI responsibly for learning.
- Create a personal plan to prepare for college and future careers.

Time Line

4. A.I. in an Abstract – 40 Minutes

The 7 Levels of AI Users

Why most AI training programs are solving the wrong problem



Most AI training programs are teaching tools — not building levels.



88% of organizations now use AI in at least one business function.
Only **1%** have reached AI maturity.

(McKinsey, 2025 / IDC, 2025)



The gap isn't budget, platform, or strategy.

It's that most CXOs don't know which level their people are actually operating at — and they invest in training as if everyone starts from the same place.



82% of enterprise leaders say their organization provides AI training,
yet **59%** still report an AI skills gap.

(DataCamp, 2026)

WHAT IS ARTIFICIAL INTELLIGENCE?

Definition:

Artificial Intelligence (AI) is technology that enables computers to perform tasks that normally require human intelligence.

Examples:

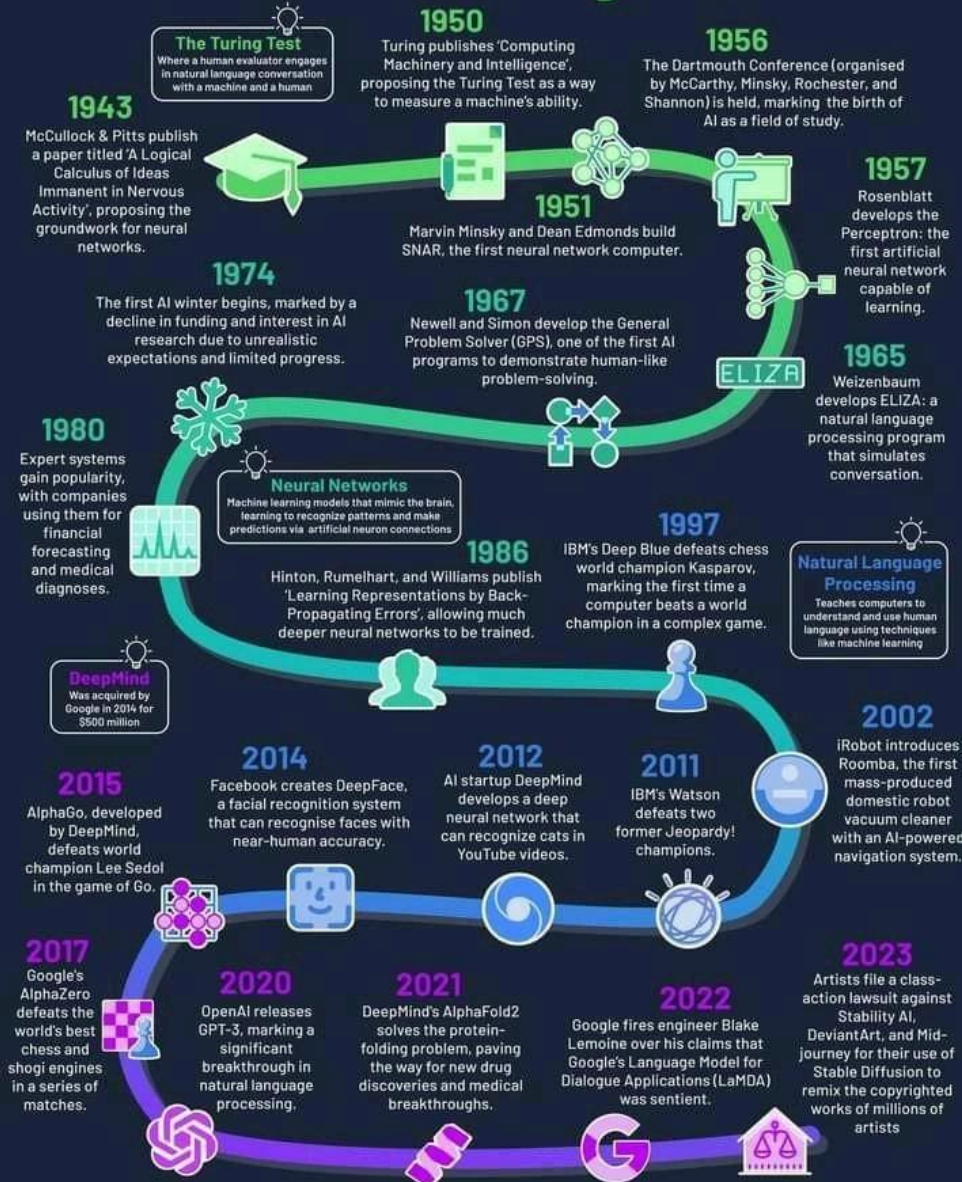
- Understanding language
- Recognizing images
- Solving problems
- Making predictions
- Learning from data

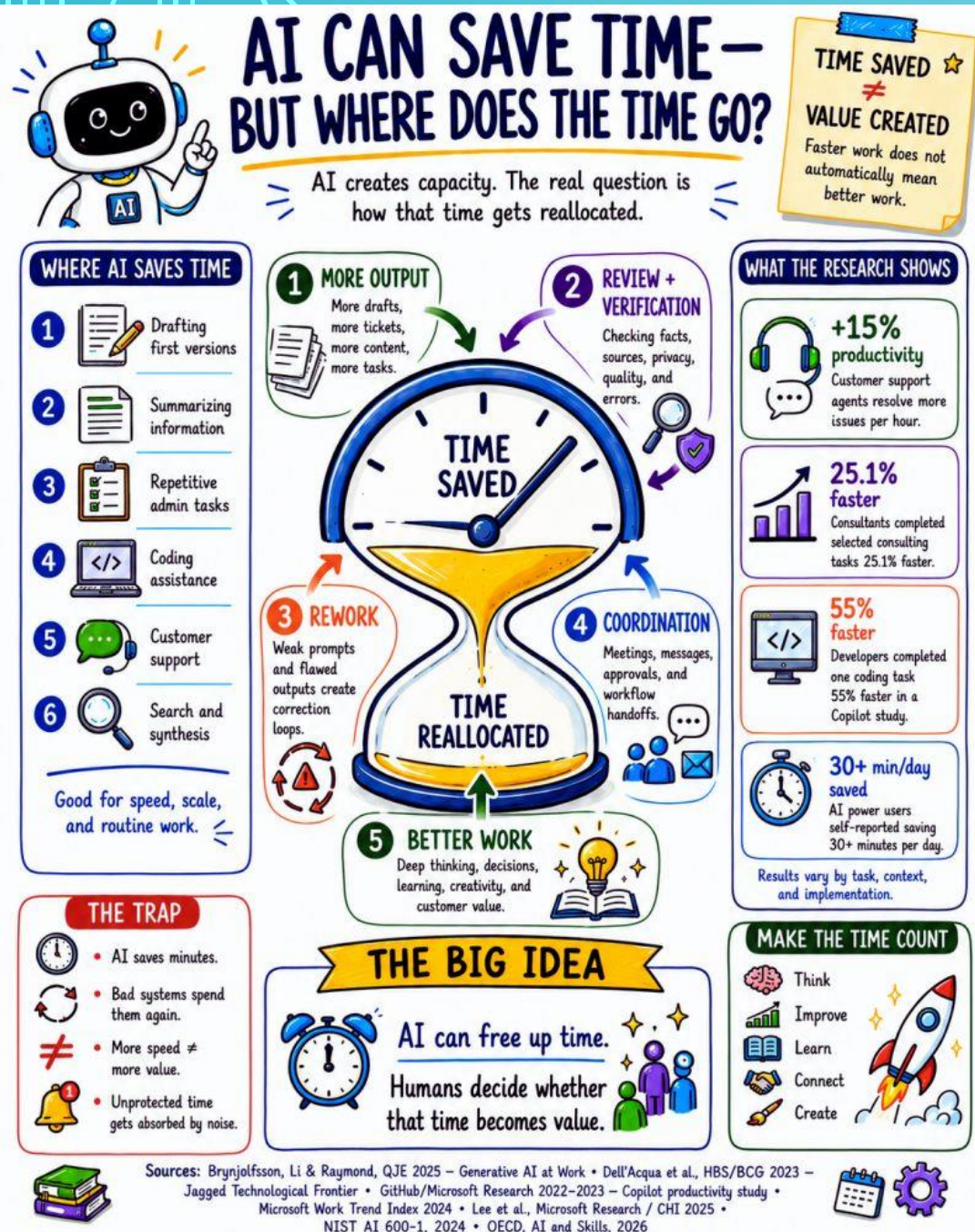
Students already encounter AI through:

- Smartphones
- Social media feeds
- Search engines
- Online shopping
- Streaming platforms

A brief history of... Artificial Intelligence.

CREATED BY
genuine
impact





AI IS ALREADY AROUND US

Examples students use every day:

- Voice assistants
- Navigation apps
- Video recommendations
- Spam filters
- Translation tools
- Chatbots

"How many AI-powered tools have you used today?"

TYPES OF AI (NARROW AI)

Designed for specific tasks.

Examples:

- Recommendation systems
- Language translation
- Face recognition

General AI

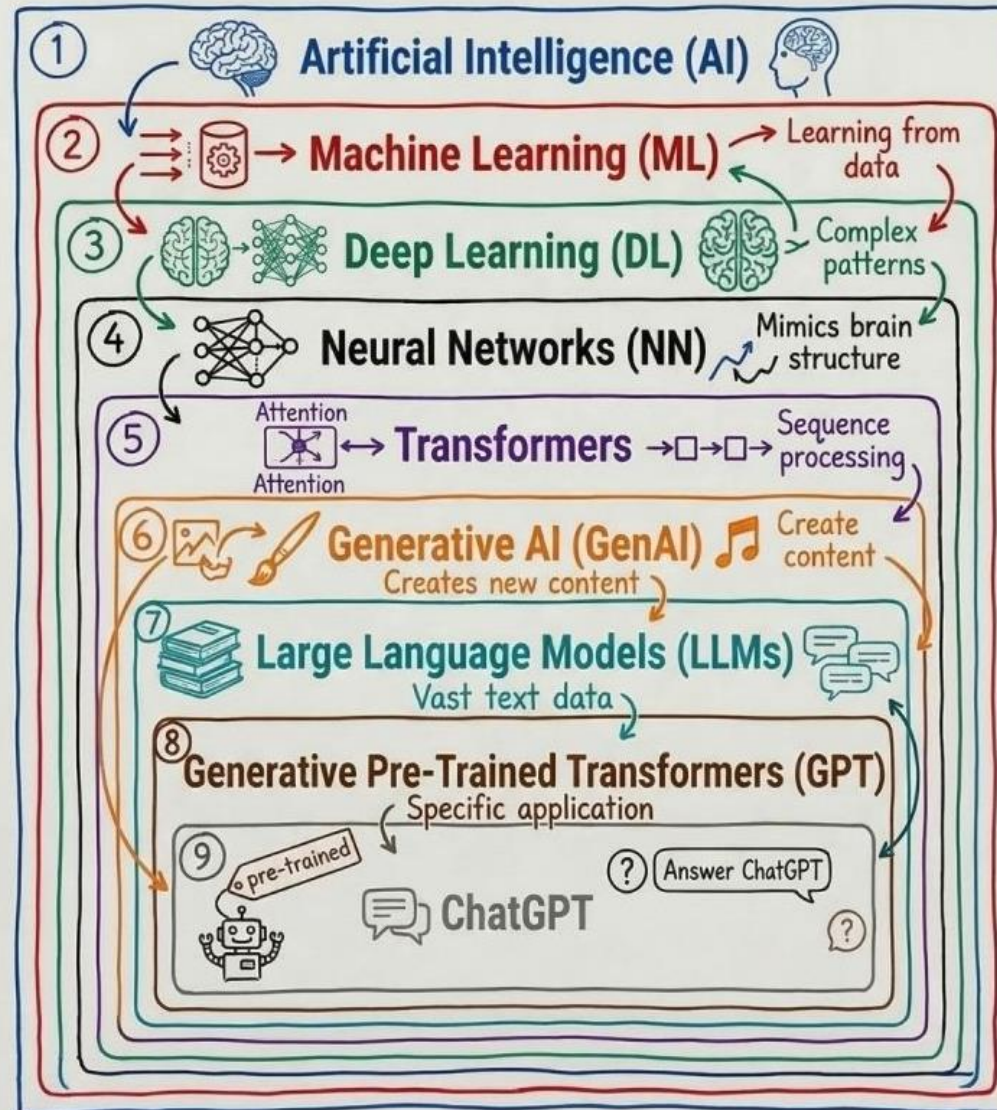
A hypothetical AI that could perform almost any intellectual task a human can.

Currently, only Narrow AI exists in practical use.

HOW TO EXPLAIN AI TERMS

A PROFESSOR'S VISUAL GUIDE

Mete|Sys



Follow Luis Rodrigues for more Insights on AI, Technology and Business

USEFUL AI TOOLS FOR STUDENTS

Learning

- ChatGPT
- Khan Academy

Writing

- Grammarly

Research

- Search engines
- Academic databases

Programming

- AI coding assistants

AI USE CASES FOR STUDENTS

AI can help with:

- Summarizing chapters
- Creating quizzes
- Practicing interviews
- Learning languages
- Coding practice
- Study planning

WHY IS AI IMPORTANT? TALKING AI

AI is transforming:

- Education
- Healthcare
- Finance
- Agriculture
- Manufacturing
- Transportation

Many future careers will involve AI in some way.

AI AND FUTURE JOBS

AI may automate some tasks but also creates new opportunities.

Examples:

- Data Analyst
- AI Engineer
- Prompt Engineer
- Cybersecurity Specialist
- Digital Marketer
- Robotics Technician

Key message:

Students who learn to work with AI will have an advantage.

Healthcare

- Disease detection
- Medical imaging

Agriculture

- Crop monitoring
- Smart irrigation

Banking

- Fraud detection

Education

- Personalized learning

Transportation

- Navigation systems

WHY STUDENTS SHOULD LEARN AI?

Benefits:

- Faster learning
- Better productivity
- Stronger problem-solving skills
- Career readiness

You only need:

- Curiosity
- Consistency
- Willingness to learn

AI literacy may become as important as computer literacy.

LEARNING PATH BEFORE COLLEGE

Month 1:

- Understand AI basics

Month 2:

- Learn prompt writing

Month 3:

- Learn basic programming

Month 4+

- Build simple projects

A Simple Formula

When using AI, try:

1. Ask a question.
2. Ask for examples.
3. Ask follow-up questions.
4. Ask it to test your understanding.

What Not to Do

- Don't share passwords or private information.
- Don't copy AI answers directly and claim they're your own work.
- Don't rely on AI as your only source for facts.

AI Systems: A Human Analogy

Still confused? Think of AI like a human body!



For more information connect with Satish Billasanti

HOW DOES AI WORK?

Simplified AI Process

1. Collect data
2. Find patterns
3. Learn from examples
4. Make predictions

Example:

An AI sees thousands of cat photos and learns what cats look like.

Imagine:

A student studies 1,000 solved questions.

Eventually, they recognize patterns and answer new questions.

AI learns similarly—through large amounts of data.

WHAT IS A PROMPT?

A prompt is an instruction given to an AI system.

Example:

Basic prompt:

Explain photosynthesis.

Better prompt:

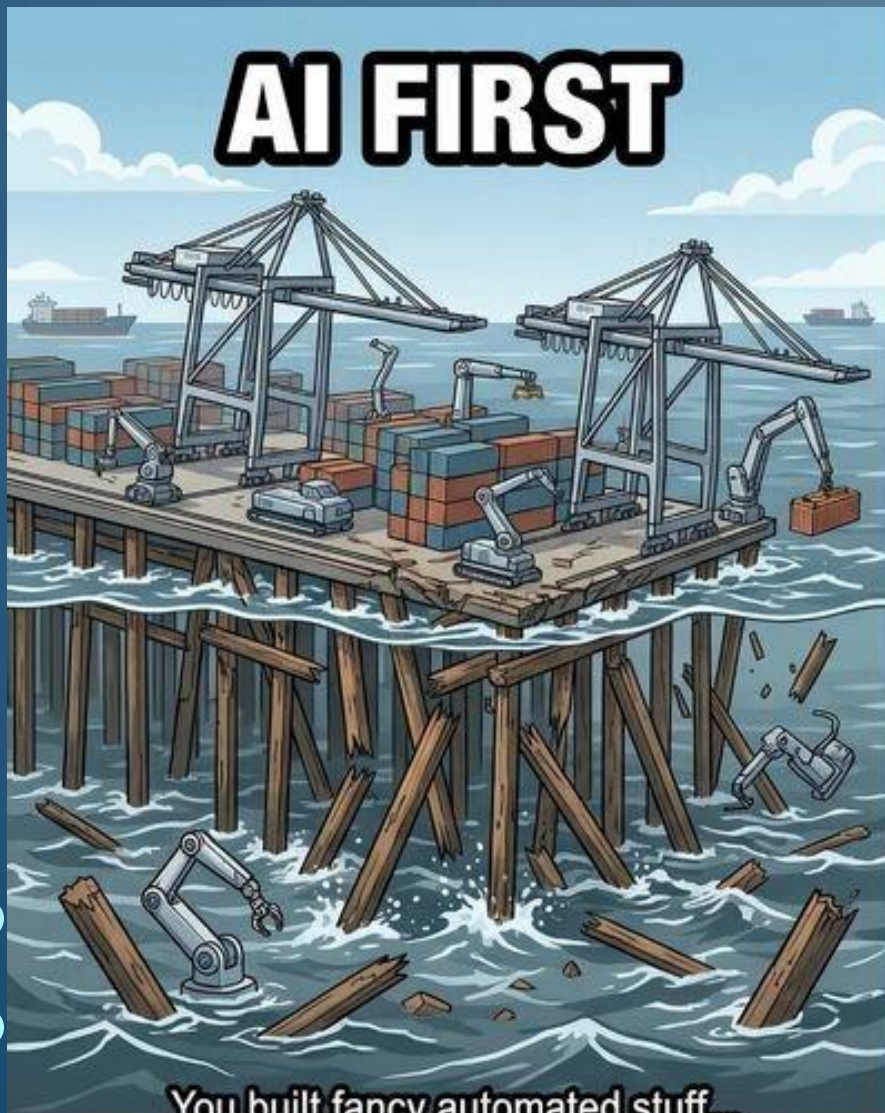
Explain photosynthesis to a Grade 12 student using simple language and examples.

Write a prompt to:

- Learn a math concept
- Summarize a chapter
- Generate a quiz

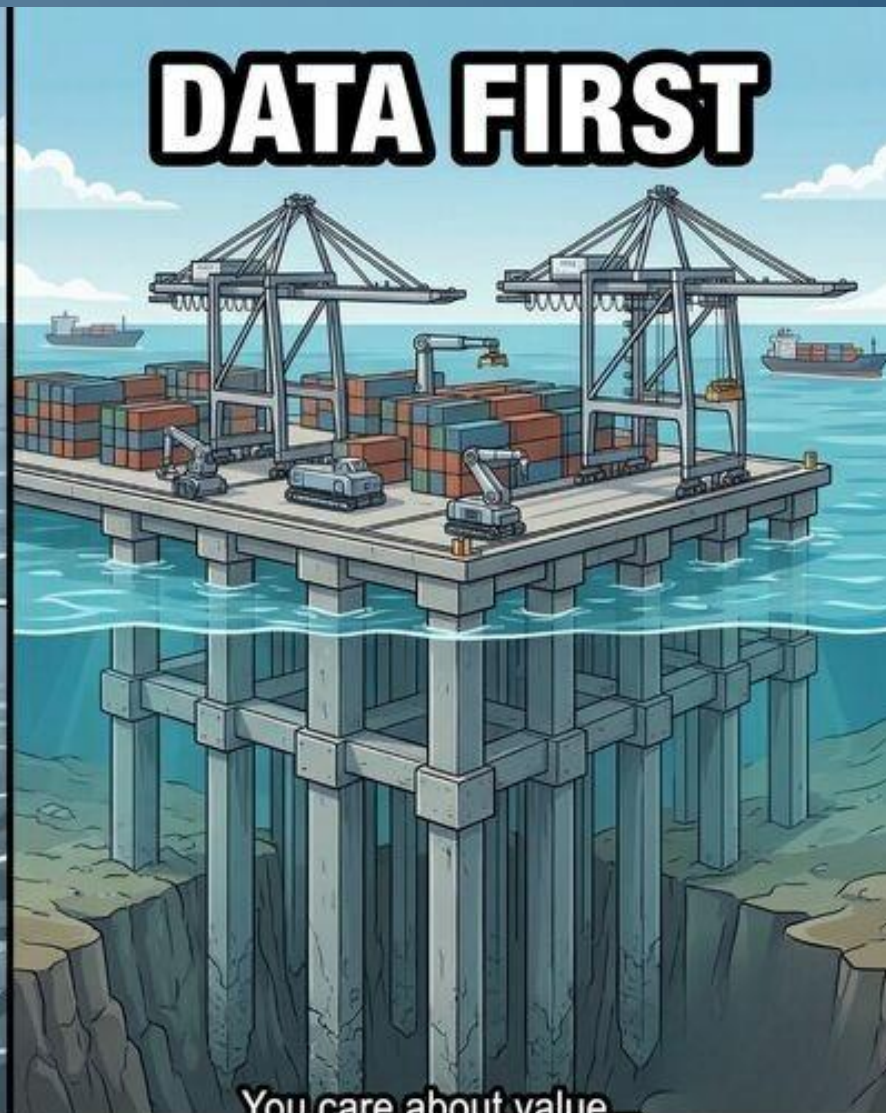
Discuss why some prompts work better than others.

AI FIRST



You built fancy automated stuff...
But you'll collapse.

DATA FIRST



You care about value...
and stable systems.

AI VS HUMANS

AI can:

- Make mistakes
- Provide outdated information
- Reflect biases in data

Students should:

- Verify important information
- Use critical thinking
- Avoid blind copying

Good use:

Learning concepts
Getting explanations
Practicing questions

Poor use:

Submitting AI-generated work as your own
Cheating on exams

1) Explain difficult concepts (like a private tutor)

If you're stuck in Physics, Chemistry, Maths, or Biology, AI can re-explain it in simpler ways.

For example:

- Newton's laws → explained with real-life examples (bike braking, walking, etc.)
- Organic chemistry reactions → broken into step-by-step logic
- Trigonometry → visual and intuitive explanation

2) Solve past paper questions step-by-step

AI can:

- Solve numerical step by step
- Show formulas and why they are used
- Point out common mistakes students make

3) Make your study notes and summaries

Instead of reading long chapters, AI can:

- Summarize textbooks
- Create short revision notes
- Turn chapters into bullet points or cheat sheets

4) Create quizzes and flashcards for revision

You can turn any topic into:

- MCQs
- Short questions
- Flashcards for memorization

5) Help you write better (essays, applications, reports)

AI can improve your:

- English essays
- College admission statements
- Project reports

6) Help with career planning after Grade 12

You can ask:

- "What careers can I choose, Pre-Medical?"
- "Is engineering or computer science better for me?"
- "What skills should I learn in 6 months?"

7) Help you learn coding or new skills

If you want to go into IT:

- AI can teach Python, web development, etc.
- Give you practice exercises
- Help debug your code

8) Important reality check

AI won't:

- replace studying
- guarantee good grades without effort
- understand your exam board perfectly unless you guide it

90-DAY AI BOOT CAMP

Month 1

- Learn AI basics
- Explore AI tools

Month 2

- Improve communication
- Practice prompt writing

Month 3

- Learn Python basics
- Build a simple project

Important Rules to Follow:

- **Don't let it do your homework.** Using AI to write your assignments for you violates academic rules and prevents you from actually learning the material.
- **Fact-check everything.** AI can confidently give you wrong information (called a "hallucination"). Always double-check facts with your textbook or a trusted website.
- **Ask your teacher.** Always check with your teachers to see if they have specific rules about using AI for their assignments.
- **Which specific subject or assignment** you are working on right now
- **What topic you are studying** in class (e.g., Biology, History, Math)

I can help you come up with the **perfect prompt** to use AI to master that topic!

The 25-Minute Daily AI Routine [1] [After School]

Step 1: The 5-Minute "AI Explain" (Clarify)



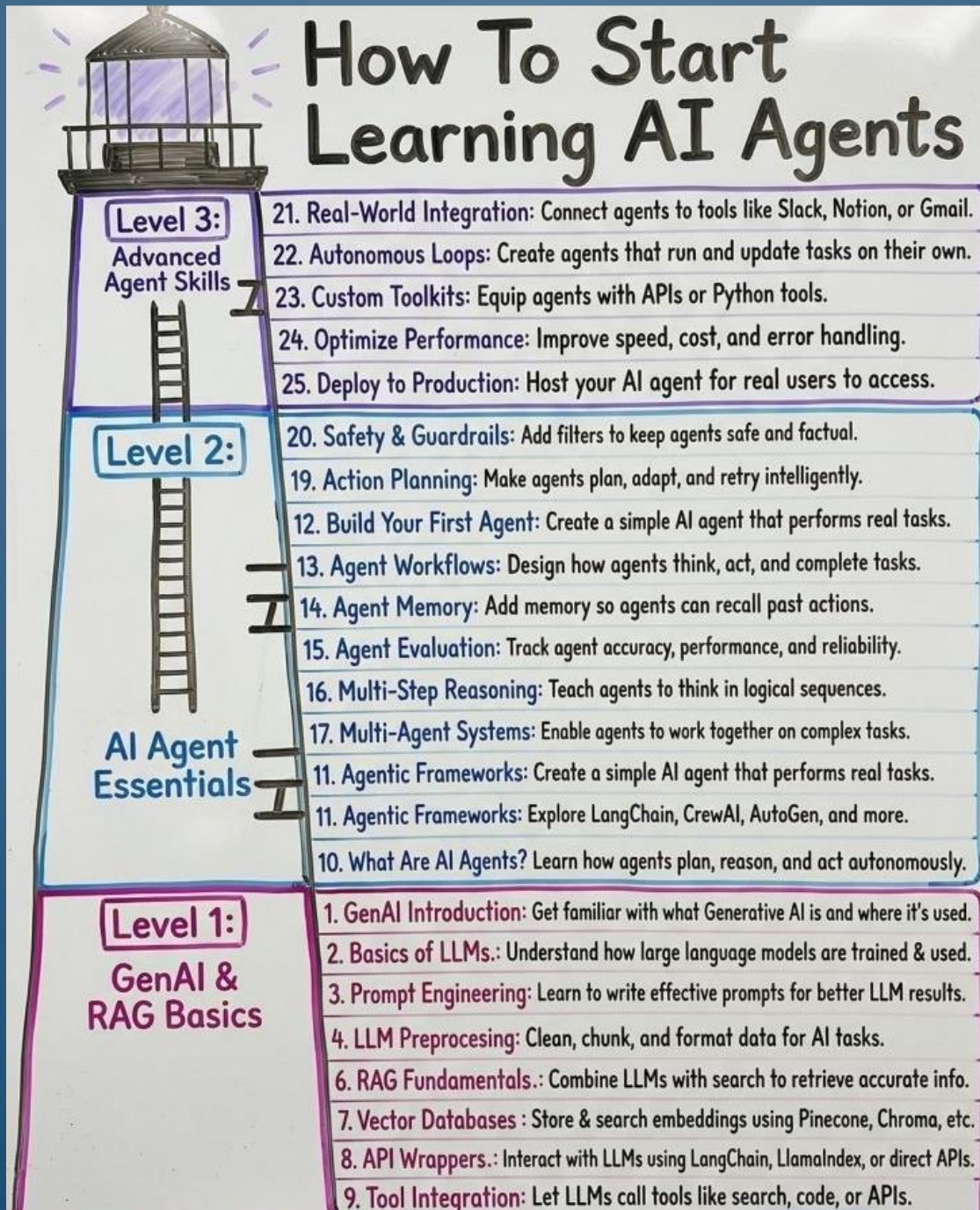
Step 2: The 10-Minute "Active Recall" (Test)



Step 3: The 5-Minute "Grade My Work" (Fix)



Step 4: The 5-Minute "Preview Tomorrow" (Prep)



Time Line

5. Exercise Quiz – 10 Minutes

THE GENERAL QUIZ

Question 1: Mathematics (Algebra & Logic)

A local movie theater charges 2,000 PKR for a student ticket. However, if you purchase a group pass for 5,000 PKR up front, the ticket price drops to 1,000 PKR per student. What is the minimum number of students needed in a group for the group pass option to be the cheaper choice?

- A) 4 students
- B) 5 students
- C) 6 students
- D) 7 students

English Literature (Vocabulary in Context)

Read the short passage below:

"The scientist's theory was met with widespread skepticism by her peers. Instead of blindly accepting her claims about the new energy source, the university panel demanded empirical evidence before passing judgment."

Based on the context clues in the passage, what does the word **empirical** most nearly mean?

- A) Hidden or secret
- B) Verifiable by observation or experiment
- C) Very expensive to produce
- D) Based on ancient traditions

General Knowledge (Science & Astronomy)

What is the primary reason the planet Mars experiences distinct seasonal changes (Spring, Summer, Autumn, Winter) just like Planet Earth does?

- A) It has two small moons orbiting it.
- B) Its distance from the Sun changes drastically throughout the year.
- C) Its axis is tilted at an angle very similar to Earth's axis.
- D) Giant dust storms block out sunlight during certain months.

Religion & History (World Traditions)

In the Islamic tradition, the Prophet Muhammad (PBUH) received the very first revelations of the Holy Qur'an through the Angel Jibril (Gabriel). In which historical mountain cave near Mecca did this event take place?

- A) Cave of Hira
- B) Cave of Thawr
- C) Cave of Ashab al-Kahf
- D) Cave of Uhud

AI CHALLENGE QUIZ

- 1.What is the AI Rule?
- 2.Why an AI Sandwich?
- 3.Which is the key to AI?
- 4.How can one learn AI?
- 5.What is AI NOT?

Which AI Model to Use

Pick by use case, not by hype

AIForLeaders.com



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Time Line

6. The Summary – 10 Minutes

For Research, For Learning Skills, For Creativity

- Brainstorm story ideas.
- Create characters for comics or games.
- Write poems, songs, or scripts.
- Generate art ideas and image prompts.
- Learn coding:
 - "Teach me Python from the beginning."
- Learn languages:
 - "Teach me 5 Spanish words a day."
- Learn public speaking, math tricks, or science concepts.

Use AI to:

- Get an overview of a topic.
- Generate questions to investigate.
- Summarize information.

But always double-check important facts with textbooks, teachers, or reliable sources because AI can sometimes make **BLUNDERS!**

What Not to Do

- Don't share passwords or private information.
- Don't copy AI answers directly and claim they're your own work.
- Don't rely on AI as your only source for facts.

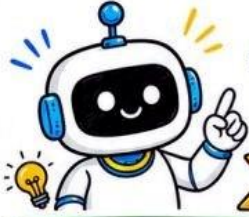
A Simple Formula

When using AI, try:

1. Ask a question.
2. Ask for examples.
3. Ask follow-up questions.
4. Ask it to test your understanding.

Time Line

7. Next Teaser – 3 Minutes



ARE YOU USING AI... OR IS AI USING YOU?

AI can make you faster. But without judgment, it can also make your work more generic, noisy, and shallow.

AI OUTPUT ≠ YOUR JUDGMENT

AI can assist thinking — not replace judgment.

WHAT AI HELPS YOU DO

- Draft faster
- Summarize faster
- Brainstorm faster
- Analyze faster
- Edit faster

Speed is valuable. But speed is not the same as quality.

HOW THE TRAP STARTS

- You ask AI
- AI gives a fast answer
- It sounds confident
- You accept or copy it
- You stop thinking deeply

The danger is not using AI. The danger is outsourcing judgment.

WHAT AI CAN QUIETLY INFLUENCE

- What you notice
- What you ignore
- How your ideas sound
- Which assumptions you accept
- How much thinking you outsource

WHAT YOU MAY LOSE

- Focus
- Judgment
- Original thinking
- Mental sharpness
- Ownership of the final decision

5 SIGNS AI IS USING YOU

1. You accept the first answer

2. Your work sounds generic

3. You stop checking sources

4. You ask AI what to think

5. You cannot explain the final result alone

USE AI AS A TOOL, NOT A BRAIN REPLACEMENT

BEFORE USING AI	WHILE USING AI	AFTER USING AI
- Define the goal - Define the audience - Define the quality bar - Decide what must stay human	- Ask for options - Ask for assumptions - Ask for counterarguments - Ask what is missing - Ask which claims need evidence	- Verify the facts - Rewrite in your voice - Remove generic language - Add human context - Own the final decision

BETTER PROMPTS = BETTER THINKING

"Give me 3 strong angles."

"What assumptions am I making?"

"What could be wrong here?"

"Which claims need sources?"

"How can I make this more specific?"

"Challenge this draft like an expert editor."

BEFORE YOU RELY ON AI

- Did I think first?
- Did I verify the answer?
- Can I explain it myself?
- Did I add my own judgment?
- Would I trust this without checking?

THE BIG IDEA

Let AI speed up your work — not weaken your mind.

The best AI users know when to delegate, when to verify, when to edit, and when to think alone.

★ Sources: NIST AI 600-1: Generative AI Profile; OECD AI Principles; Microsoft Work Trend Index 2024; Noy & Zhang, Science 2023; Microsoft Research, The Impact of Generative AI on Critical Thinking; Stanford SCALE repository on cognitive engagement.

9 New Critical Thinking Frameworks for the AI Age.

AI now shapes what humans can even think about.
These frameworks fight back.

1 SIFT Method

Evaluates AI output by checking sources laterally, not trusting the

Key Points

- Stop. Investigate. Find sources. Trace claims.
- Cross-check before you trust any AI answer.

Use it: Before using any AI-generated fact in a decision or deliverable.

2 Pre-Mortem Analysis

Imagine the AI recommendation already failed. Work backward.

Key Points

- Surfaces blind spots before they become expensive.
- HBR recommends it specifically for AI-assisted decisions.

Use it: Before acting on any high-stakes AI recommendation.

3 Devil's Advocate Prompting

Ask AI to argue against its own answer. Force it to find holes.

Key Points

- Multi-agent studies show it catches confirmation bias.
- One prompt: "Now argue why this is completely wrong."

Use it: After every AI strategy suggestion or analysis.

4 Steelmanning

Ask AI to build the strongest case for the opposing view.

Key Points

- Prevents echo chambers in AI-assisted research.
- Forces you to engage with the best counterargument.

Use it: Before any decision where you already have a preferred answer.

5 The CAT Test

Check, Ask, Think. Built specifically for AI content.

Key Points

- Corroborate claims. Interrogate model reasoning. Reflect on influence.
- Published 2025, designed to replace CRAAP for AI.

Us: When evaluating any AI output for accuracy and bias.

6 Ontological Bias Audit

Ask what the AI is NOT showing you. What assumptions were silent?

Key Points

- Stanford 2025: AI limits what humans can even imagine.
- The tree without roots. What is your AI leaving out?

Us: When AI output feels "complete" but you haven't checked the frame.

7 RED Model

Recognize assumptions. Evaluate arguments. Draw conclusions

Key Points

- Classic critical thinking model, now essential for AI review.
- Forces you to separate AI confidence from actual evidence.

Us: When AI gives you a confident answer with no sources.

8 Inversion Thinking

Ask "How would this fail catastrophically?" instead of "How to succeed?"

Key Points

- Exposes risks AI optimism-bias hides.
- Charlie Munger's framework, vital for AI strategy.

Us: After AI gives you a plan. Invert every assumption.

9 The One Thought Rule

Before any AI query, write your own answer first. Then compare.

Key Points

- Prevents cognitive atrophy from outsourcing thinking.
- Psychology Today 2025: preserves cognitive fitness.

Us: Daily. One thought before one prompt. Build the habit.

A suggested Roadmap

1. Learn Python and core programming concepts.
2. Strengthen math, especially algebra, probability, statistics, and the basics of linear algebra and calculus.
3. Get comfortable with data analysis using NumPy, pandas, and Matplotlib.
4. Study machine learning with scikit-learn and practice on Kaggle datasets.
5. Move into deep learning with PyTorch or TensorFlow.
6. Explore large language models, APIs, and prompt engineering.
7. Build original AI projects, publish the code on GitHub, and participate in competitions or hackathons.

By the end of 12th grade, a motivated student following this path could have a solid foundation for university-level AI studies and a portfolio of projects that demonstrates practical skills.

Time Line

8. Q&A – 10 Minutes

Q&A

THANK
YOU

