

2-Hour Introduction to AI (Teens & Adults)

A practical, demo-driven session with hands-on creation using popular GenAI tools.

0:00 – 0:10 · Welcome & Icebreaker

Format: Group discussion + video

Activities:

- Quick poll: “Where do you see AI in your life?” (smartphones, TikTok, games, etc.)
 - Short intro clip (e.g., “What is AI?”)
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0:10 – 0:30 · What is Artificial Intelligence?

Format: Interactive slides

Key ideas:

- **Simple definition:** AI = machines that learn from data
 - **Three pillars:** perception (vision/speech), reasoning (prediction), creation (generative AI)
 - **Everyday examples:** translation, face filters, chatbots, recommendations
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0:30 – 0:50 · How Does AI Learn?

Format: Demo + live Q&A

Concepts:

- Data → model → prediction (analogy: teaching a friend to recognize cats)
 - **Live demo:** Build a tiny classifier with **Teachable Machine**
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0:50 – 1:10 · Generative AI: Making Things with AI

Format: Presentation with examples

Categories & tools:

- **Text / Chat:** ChatGPT, Claude, Mistral, DeepSeek, Qwen, Grok, Perplexity, Copilot, Poe
 - **Images:** DALL·E 3, Midjourney, SeedDream, OpenArt.ai
 - **Music:** Suno, Udio
 - **Video (demo):** Kling AI, Veo 3.1, Wan.Video, Google Flow, Google Whisk
 - **3D (demo):** Meshy.ai, Zoo.dev
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1:10 – 1:30 · Hands-on Creation Lab

Format: Guided activity

Choose 1–2 tools to try:

- **Text:** ChatGPT, Claude, Perplexity, Copilot, Poe (story, outline, ideas)
 - **Images:** DALL·E 3, Midjourney, SeedDream, OpenArt.ai (posters, logos, concept art)
 - **Music:** Suno, Udio (hooks, short tracks)
 - *(Optional demos only:)* **Video** (Kling, Veo 3.1) and **3D** (Meshy.ai)
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1:30 – 1:50 · Real-World Uses & Ethics

Format: Discussion + short slides

Topics:

- Use cases in school, art, health, business
 - Mini-debate: “Should AI have limits?”
 - Misinformation, bias, copyright, privacy, responsible use
 - **Research tips:** Google NotebookLM, Google AI Studio; fact-checking with Perplexity
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1:50 – 2:00 · Wrap-Up & Next Steps

Format: Closing reflection

Activities:

- Group share: What amazed you most?
 - Distribute **Quick Reference** links (text/chat, image, music, video, 3D, learn-by-doing)
 - **Your AI Challenge:** Create something at home with one tool and share it
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📌 Key Concepts — Expanded

AI is not magic — it's patterns in numbers

What it means: Computers turn everything into numbers (pixels, words, audio samples, sensor values), then spot patterns in those numbers.

Everyday feel: Your phone “recognizes” a face by comparing numeric patterns of pixels; translation maps word-vectors (numbers) from one language to another.

Mini-exercise: Take any object (e.g., a photo). Ask: “How would I turn this into numbers?” (RGB values per pixel; height×width×3 array.)

Takeaway: If you can represent it as numbers, you can apply AI to it.

Machine Learning (ML) — learning from examples

What it means: Instead of writing rules by hand, we feed examples and let the model learn the rule.

Main flavors:

- Supervised: labeled examples (email → spam/not spam).
- Unsupervised: find structure without labels (clustering students by study patterns).
- Self-supervised: learn from the data itself (predict the next word in a sentence).
- Reinforcement learning: learn by trial and reward (robot learns to walk).

Mini-exercise: Use Teachable Machine to train a 2-class image classifier in minutes (webcam).

Generative AI — create new content from patterns

What it means: Models learn the distribution of data (text, images, music) and sample from it to produce new text, pictures, audio, or video.

Everyday feel: Chat replies that sound human; images “in the style of ...”; music that matches a mood.

Tip: Good outputs come from clear instructions + constraints (style, length, audience).

Try it: Text (ChatGPT/Claude), Images (DALL·E/Midjourney), Music (Suno/Udio), Video (Veo/Kling).

Prompting — talking to AI so it helps you better

Core skills:

- Role: “Act as a math tutor for a 12-year-old.”
- Task: “Explain fractions with a pizza analogy in 5 bullets.”
- Constraints: “Keep it under 120 words; include 1 example.”
- Iterate: Refine with “make it simpler,” “now give me a quiz.”

Framework: RATC → Role, Audience, Task, Constraints.

Pro move: Give context (input data, examples, style guide) and ask for checklists or rubrics to self-evaluate.

Hallucinations — fluent but wrong answers

What it is: The model “fills in” likely words, not guaranteed facts, so it can sound confident yet be incorrect or make up sources.

How to reduce risk:

- Ask for sources / citations.
- Provide trusted context (docs, data).
- Use retrieval (RAG) or tools with real data.
- Verify critical claims with a second tool (e.g., Perplexity for citations).

Good prompt add-on: “If unsure, say you don’t know.”

RAG (Retrieval-Augmented Generation)

What it means: Before answering, the system searches your knowledge base (PDFs, sites, DBs), pulls relevant passages, then the model writes using those snippets.

Why it's powerful: Fewer hallucinations, answers grounded in your data, and easy updates (change the docs, not the model).

Mental model: Search → Select → Synthesize.

Starter idea: Build a Q&A bot over your policies or class notes; compare answers with/without retrieval.

AI Agents — goal-driven, tool-using assistants

What they do: Break goals into steps, call tools (web, code, spreadsheets, APIs), check results, and continue until done.

Example: “Plan a 2-day Kinshasa workshop, draft slides, and email a checklist.” The agent searches venues, generates outlines, and composes emails (with human approval).

Caution: Great for workflow automation but still needs oversight (guardrails, budgets, and review).

Using AI: “Super Google” vs. “Operating System”

Super Google (answer engine): Ask questions, get synthesized, cited answers (chat + search hybrid). Great for research and explanations. (Try Perplexity/Copilot.)

Operating System (copilot layer): AI embedded everywhere—docs, slides, IDEs, browsers—drafting, checking, summarizing, automating. Think of AI as a universal helper app that sits atop your tools.

Exponential progress — why it feels shocking

Intuition: Capabilities compound: small monthly improvements stack fast. What seemed “impossible” last year becomes normal.

Stadium analogy (forward-looking): If water doubles every minute, you see a few puddles for a long time, then—suddenly—the stadium floods near the end. With tech, most of the impact arrives late and fast.

How to cope: Learn fundamentals, keep experimenting, and track updates rhythmically (e.g., monthly). Small, regular practice beats big, rare catch-ups.

Ethics & safety — power with responsibility

Disclosure: Say when AI helped (“Drafted with AI”).

Privacy: Minimize or anonymize PII; don't paste secrets into public tools.

Legal: Respect copyright, licenses, and local regulations.

Bias & fairness: Test outputs on diverse cases; avoid harmful stereotypes.

Attribution: When using sources or training on your data, cite/credit appropriately.

Rule of thumb: If it would embarrass you on a projector, don't do it.

Quick practice menu (do-it-now)

- **Pattern demo (Concept 1):** Load a photo and list 3 ways to represent it numerically (pixels, embeddings, edge maps).
 - **ML in minutes (Concept 2):** Train a webcam classifier with Teachable Machine and test with different objects.
 - **Prompt ladder (Concept 4):** Write a weak prompt → improve it with Role/Audience/Task/Constraints → add examples → add a rubric.
 - **RAG taste test (Concept 6):** Ask an AI about your own doc with and without retrieval; compare specificity and citations.
 - **Safety check (Concept 10):** Take any generated output and run a quick ethics checklist: disclosure? privacy? rights? harmful bias?
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Handy tools from your quick reference

Text/chat (ChatGPT, Claude, Gemini, Copilot, Perplexity), image (DALL·E, Midjourney, OpenArt), music (Suno, Udio), video (Veo, Kling), 3D (Meshy, Zoo), and Teachable Machine for fast demos—all in your one-pager.