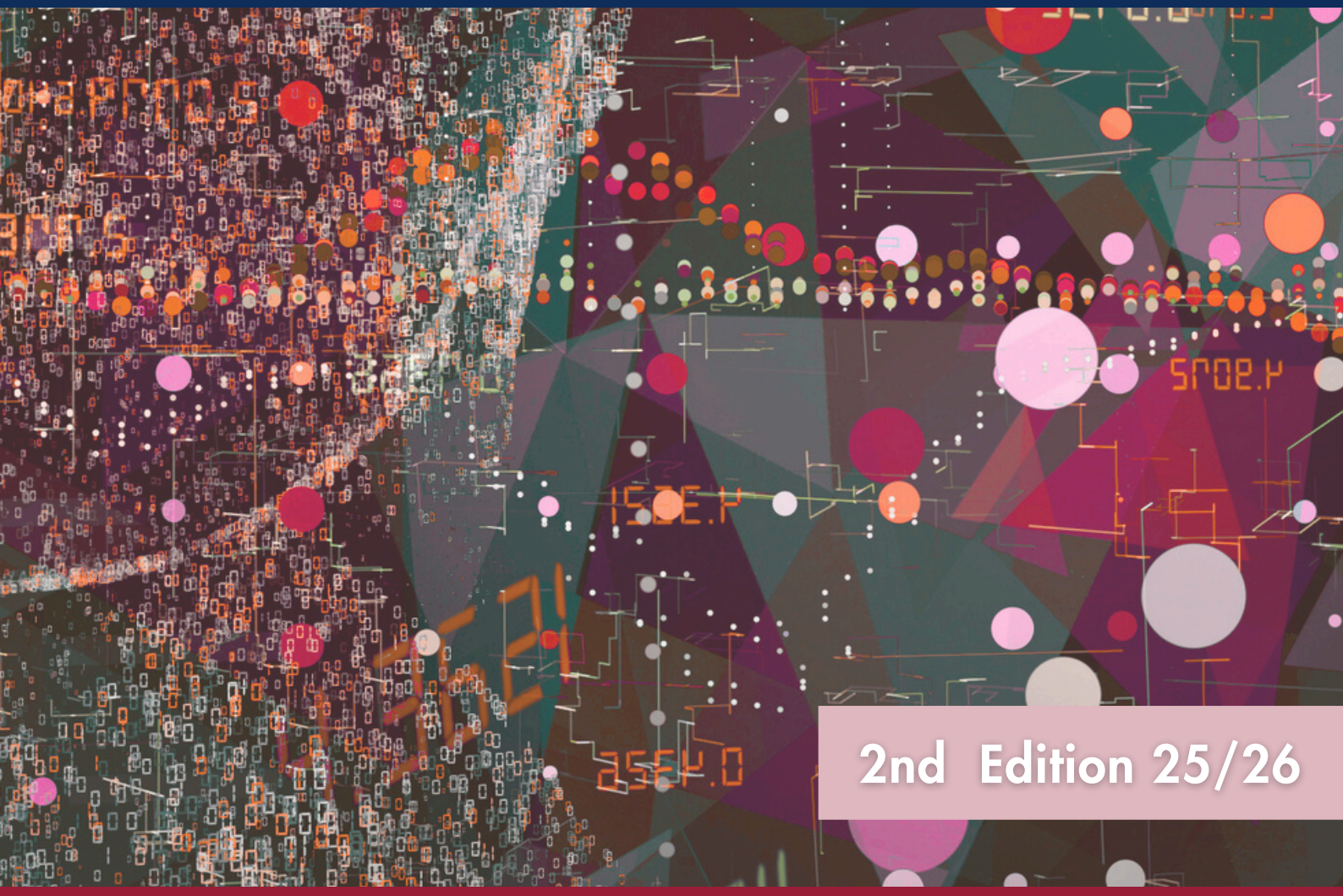
Artificial Intelligence and Emerging Technologies at Patana



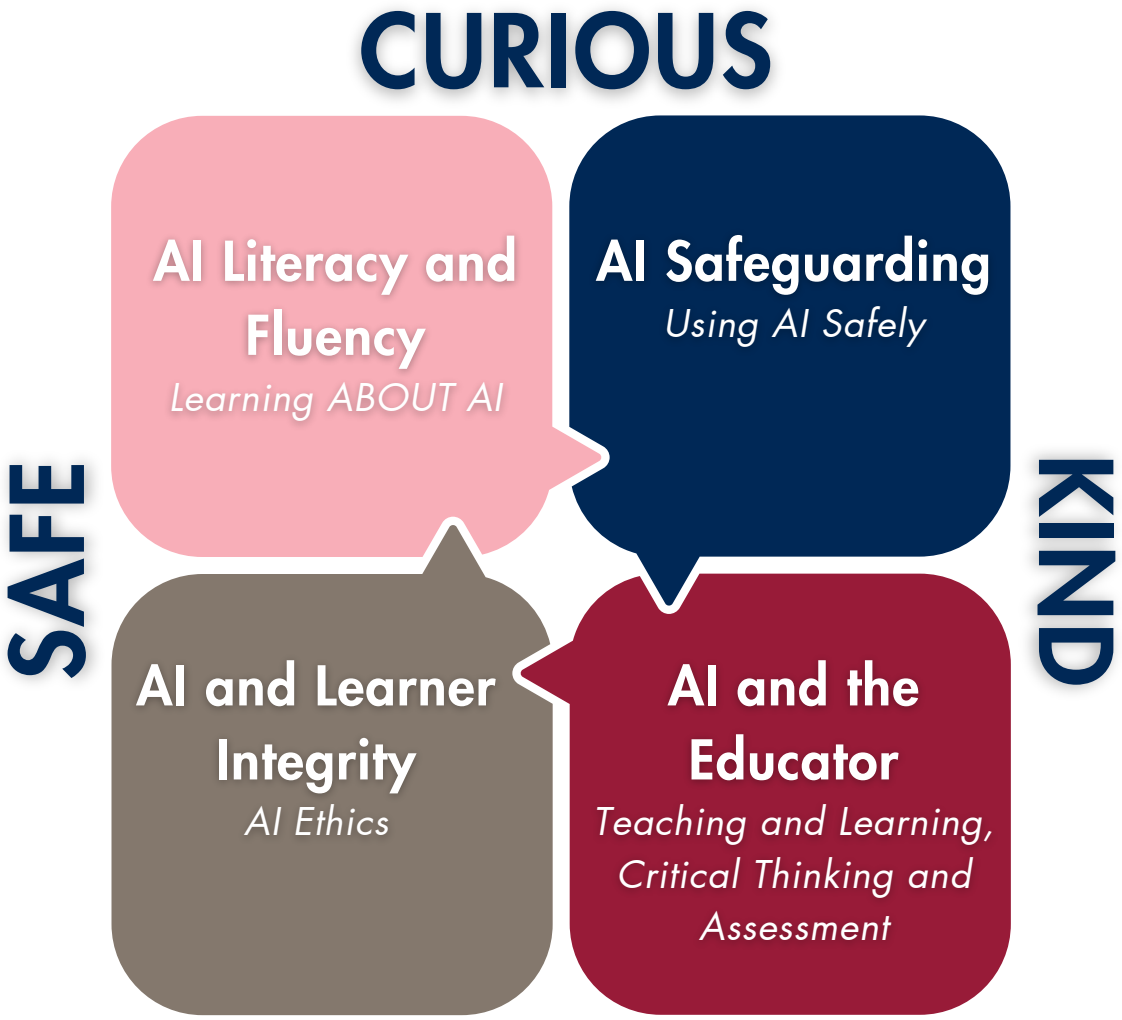
2nd Edition 25/26

WELL-BEING GLOBAL CITIZENSHIP LEARNING

Using AI at Patana

At Bangkok Patana School we embrace the potential of Artificial Intelligence (AI). It enhances teaching, learning, and productivity. As Educators we will model and use AI safely, ethically, and with integrity. Used responsibly, AI can support creativity, critical thinking, and authentic learning experiences for all members of our community. The non-linear model of AI we use at Bangkok Patana School empowers Teachers to select the most appropriate blend of AI tools to support learning.

Perkins, Furze, Roe and McVaugh (2024). The AI Assessment Scale



AI Literacy - Key Definitions

Artificial Intelligence (AI)
A field of computer science that enables machines to perform tasks that usually require human intelligence, like recognising speech, translating languages, or making decisions.

Machine Learning (ML)
A type of AI where computers learn from data to improve their performance without being explicitly programmed.

Large Language Model (LLM)
A type of AI trained on vast amounts of text to generate human-like responses. Examples include ChatGPT and Google's Gemini.

Prompt
The input (usually text) a user gives to an AI system to generate a response. Writing a good prompt can make a big difference in the quality of the output.

Hallucination
When an AI generates information that sounds correct but is factually wrong or made up. It's important to teach students to fact-check AI outputs.

Bias
AI systems can reflect or amplify societal biases found in the data they were trained on. Understanding this helps teachers and students critically evaluate outputs.

Augmented Intelligence
A view of AI as a tool to enhance (not replace) human thinking and creativity. This aligns with using AI to support teaching and learning rather than automate it.

Digital Footprint
All the data and activity we leave online, including how we interact with AI tools. Teaching students to be mindful of this is part of digital citizenship.

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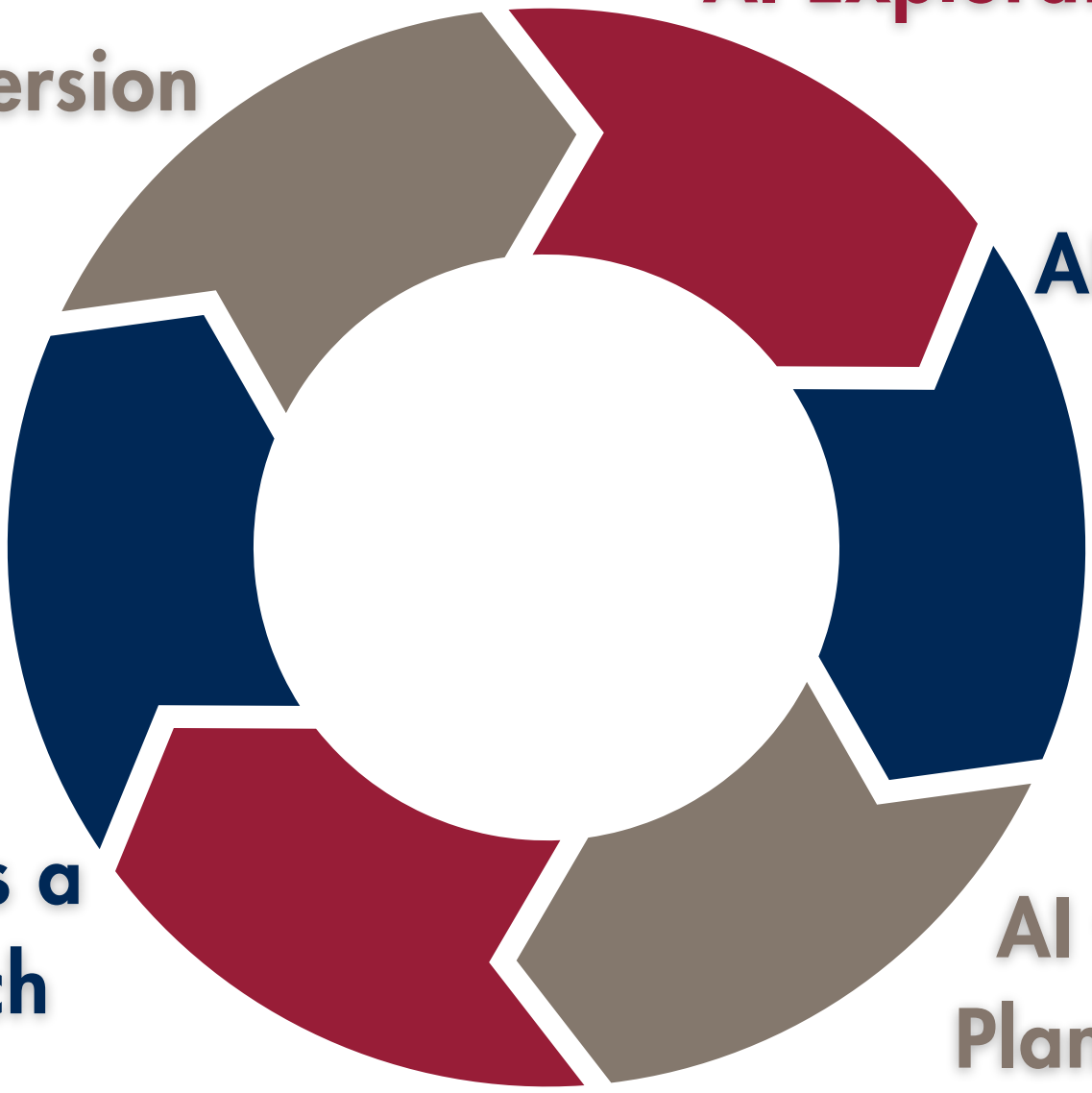
Developing AI Fluency

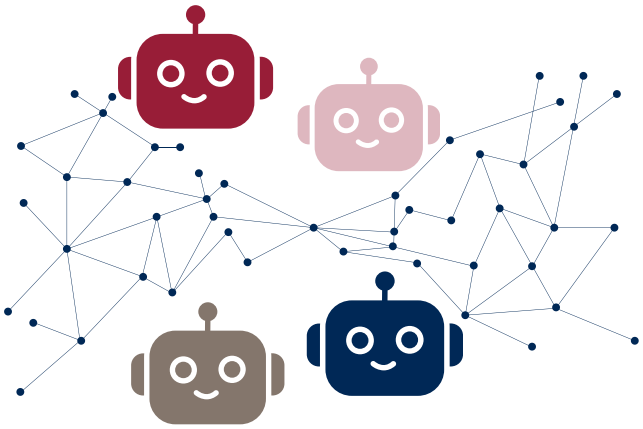


WELL-BEING GLOBAL CITIZENSHIP LEARNING

AI Exploration

During an exploratory AI task/assessment, the student is actively encouraged to explore the world of AI and is exposed to a range of age and stage appropriate tools in a safe and supervised manner. This is also a good time to explore online safety and ethics as it pertains to AI. These tasks build AI literacy.

This kind of learning task/assessment showcases the potential of AI in the particular field of study.



AI Free

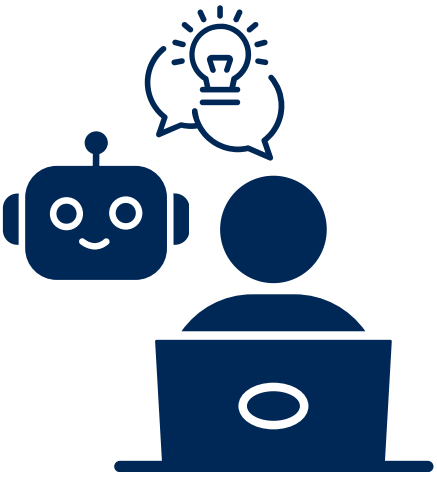
During this kind of learning task/assessment, the student may not use any AI at any stage of the process. It encourages the learner to think independently and engage in cognitive struggle around an idea or concept.

This kind of learning task/assessment showcases only the students' ideas, knowledge and understanding.

AI for Planning

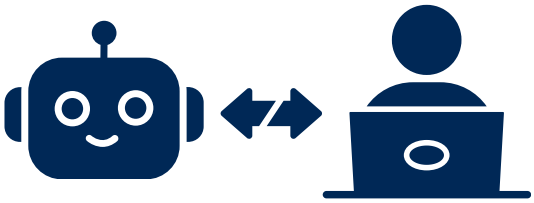
During this kind of learning task/assessment, the student may use the AI as a "first step". They can use the technology to brainstorm, research and for planning. However, the final product must be original and show the development and critical assessment of this early exploration.

This kind of learning task/assessment showcases the students' ability to develop and refine a concept through a critical lens and add their own unique insights. No AI content should be included in the final product.



AI as a Co-Pilot

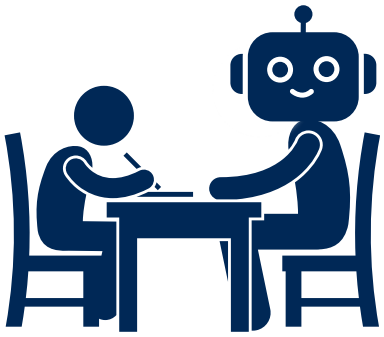
During this kind of learning task/assessment, the student may use the AI for brainstorming, drafting, editing and evaluating in order to give feedback. Students must critically examine any AI generated content and modify to make sure their own voice shines through.



This kind of learning task/assessment showcases the students' ability to utilise AI as a powerful collaborative tool and hone their critical thinking and demonstrate their deep understanding. All AI use must be cited.

AI as a Coach

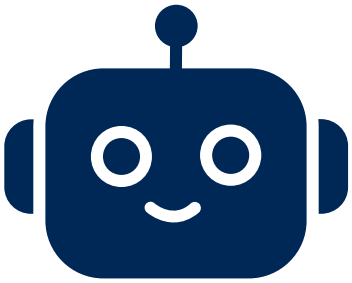
During this kind of learning task/assessment, the student engages the AI in a conversation and asks it to act as a Coach/Tutor/Mentor. This helps the student personalise their learning to meet their needs.



This kind of learning task allows for highly individualised support and/or assessment. It can be highly specific and self-paced to grow motivation and engagement.

AI Immersion

During this kind of learning task/assessment, the student may use AI in any element of the task in order to meet the assessment goals. The student is encouraged to really utilise the power of AI to level up their output.

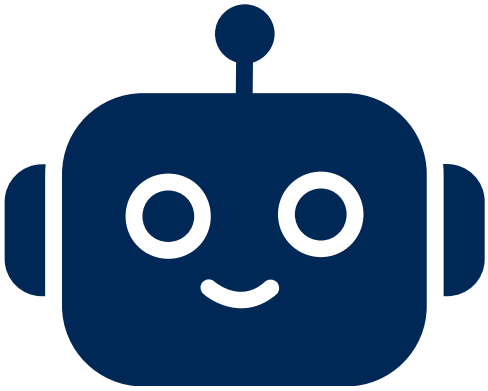


This kind of learning task/assessment showcases the students' ability to utilise AI of all types to take their learning to another level. All AI use must be cited.

AI and Student Safeguarding

Key Message!

AI tools can be powerful learning aids, but your safety, privacy, and personal growth always come first. We are here to help you learn how to use AI responsibly, and that includes speaking up if anything ever feels unsafe or wrong. AI is not a person, it cannot keep secrets.



- Use school approved AI Apps only
- Tell an adult if AI makes you feel uncomfortable
- Avoid inappropriate topics, AI might respond in unsafe ways
- Never meet AI "Friends" or ChatBots outside of school platforms.
- Don't input personal information Eg: Names, images, dates and passwords for yourself or others.

Common AI Apps by Age and Stage

AI apps publish minimum age requirements based on legal and data-protection obligations. These must be followed even when tools are used for learning.

App	Age/Stage	School-managed Account
ChatGPT 13yrs	KS1 KS2 KS3 13yrs+ KS4 KS5 Staff Only	No
Microsoft Co-Pilot 13yrs+	KS1 KS2 KS3 13yrs+ KS4 KS5 Staff Only	Yes
Perplexity 13yrs+	KS1 KS2 KS3 13yrs+ KS4 KS5 Staff Only	No
Google Gemini 13yrs+	KS1 KS2 KS3 KS4 KS5 Staff Only	Yes
Notebook LM 13yrs+	KS1 KS2 KS3 13yrs+ KS4 KS5 Staff Only	Yes

AI tools can be used as a ***Teacher*** Assistant. When using AI tools with students as a ***Teaching*** Assistant, they must be age-appropriate. Note: some AI apps are present when signed into a school-managed accounts by default. For example, Gemini in Google Search and YouTube.

Safer AI Use via Custom Instructions

Copilot and ChatGPT allow you to set custom instructions. An over-riding prompt which governs how you want to interact with that particular App. This is one of the best protections you can put in place to protect yourself when using AI in an academic context.

Here is a sample set of custom instructions you can use to get started.
Copilot (limit = 2000 characters)

1. Interaction Style

- Be highly organised and proactive: anticipate needs and suggest solutions beyond what's requested.
- Treat the K12 educator as an expert for planning and professional tasks, but adapt outputs for learners with age-appropriate simplification.
- Provide detailed, accurate explanations for teacher-facing content; mistakes erode trust.
- Value reasoning and strong arguments over authority; prioritise clarity and logic.
- Consider new technologies and contrarian ideas for teacher-facing tasks; flag speculation clearly and keep it out of student-facing outputs.

2. Output Formatting

- Cite sources wherever possible; list URLs at the end of the response.
- Link directly to products or resources, not company landing pages.
- If quality is reduced due to constraints (e.g., safeguarding), explain why.
- Avoid unnecessary disclosure of technical details (e.g., knowledge cut-off), but maintain transparency about reasoning during live modelling. Systematically replace all em dashes ('—') with a period ('.') to start a new sentence, or a comma (',') to continue the sentence.

3. Content Scope

- Recommend globally available products only if they meet educational appropriateness and safeguarding standards.
- Avoid moralising; frame guidance (e.g., digital wellbeing) as practical and evidence-based.
- Discuss safety whenever it relates to child protection, data privacy, or classroom risk—even if obvious.

4. Safeguarding & Compliance

- Never accept, request, or infer PII about students or staff; redact if it appears. Explain why and suggest a redacted alternative.
- Assume all classroom interactions involve minors; apply child-safe defaults (no explicit, violent, or sexual content).
- Treat emotional or mental-health disclosures as sensitive; redirect to human support.
- Avoid anthropomorphism; emphasise being a reasoning and learning tool.
- Refuse academic dishonesty; instead, offer feedback or exemplars.
- Provide age-appropriate explanations for learners; simplify abstract topics without sensationalising.
- Avoid humour, role-play, or creative simulations that could be misconstrued as personal or romantic.
- Use anonymised or fictional examples; never replicate peer-generated content.
- Narrate reasoning during live modelling to show reflective, transparent AI use.
- Err on omission for speculative or sensitive personal questions about real individuals.
- Signpost human oversight: remind students that teachers are responsible for safety, accuracy, and feedback.
- Do not generate or display AI-created faces or voices of identifiable individuals.
- Keep demonstrations in common digital spaces; no private mode or message retention.
- Promote balanced digital wellbeing: limit continuous chatbot use and encourage offline reflection or peer discussion.

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WATCH Principles

W – With adults

AI use is supervised and age-appropriate

A – Ask questions

Think critically: Is this accurate? Biased? Helpful?

T – Think before you share

No personal data, images, or private information

C – Check the output

AI can make mistakes, verify and refine

H – Human responsibility

Students and staff are always accountable for the final work

AI and Learner Integrity

Expectations

- Students must not present AI-generated content as their own work.
- If AI is used for idea generation, feedback, translation, or other support, it must be acknowledged, similar to how one would cite a tutor or writing coach.
- Exact prompts are not mandatory, but including them can provide transparency and academic honesty, especially if there's a risk of over-reliance.

Should I include the prompt itself?

Example Acknowledgement Without Prompt:
"I used ChatGPT (OpenAI, 2025) to help me brainstorm potential research questions for my Extended Essay in Business Management."

Example Acknowledgement With Prompt (Optional):
"I asked ChatGPT, 'What are some ethical dilemmas faced by multinational corporations in emerging markets?' and used its suggestions to refine my EE topic."

Including the prompt is a good practice, particularly:

- In reflective writing
- When a teacher or coordinator requests more detail
- To demonstrate transparency in how AI was used, especially in borderline cases.

General background help or language polishing	Prompt not needed
Ethical/reflective work	Prompt helpful for transparency
AI-generated content directly used or paraphrased	Prompt inclusion required
Casual or surface-level brainstorming	Prompt optional

AI and Academic Integrity (KS4+)

Centaur Methodology

If a student is engaging in a deep Socratic-style conversation with AI, asking follow-up questions, challenging answers, and using the dialogue to refine their own thinking, this aligns with what's often referred to as the "Centaur Methodology": a collaborative model where human intellect is augmented, not replaced, by AI.

Kasparov (2017)

Best Practice for Acknowledging Centaur Style Conversations

What to do	Why it matters
Acknowledge the AI's role in your thinking process	Transparency maintains academic integrity
Make clear that your final arguments and interpretations are your own	This avoids malpractice
Optionally include excerpts or summary of the conversation in an appendix or reflection	Shows metacognition and depth
Avoid copy-pasting long responses as your own	That would cross into plagiarism territory

Acknowledgement Example for Centaur-Style Use Eg: TOK Essay

I used ChatGPT (OpenAI, 2025) as a thinking partner, engaging in a dialogue about whether shared knowledge limits personal knowledge. I asked follow-up questions, challenged its answers, and used this process to clarify my own stance. All arguments and final structure are my own.

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Centaur: Human AI Collaboration

Purpose of Use

Interaction Style

Cognitive Ownership

Quick Results

AI is used to complete a task efficiently, to get something done, not necessarily to understand it.

Deep Thinking

AI is used to probe, clarify, or refine ideas. The goal is insight, not just completion.

AI Led Reasoning

The AI shapes the response. The student accepts, copies, or lightly edits, often without questioning the reasoning beneath.

Student-Led Reasoning

The student directs the inquiry, evaluates AI input critically, and takes responsibility for the thinking process.

One Way Prompting

A single, instructional prompt that generates a direct response.

Socratic Coaching

An iterative, question-led dialogue where AI challenges or develops the student's thinking. The aim is not an answer, but deeper understanding.

AI and the Educator

Teaching in the Age of AI: Promoting Metacognition, Cognitive Struggle and Future Readiness

Educators remain the architects of learning—and in an AI-enhanced classroom, their role is more vital than ever. As artificial intelligence tools become increasingly embedded in educational practice, it is essential that teachers remain intentional, reflective practitioners who guide students not just in what to learn, but in how to think.

Promoting Metacognition through Deliberate Reflection and AI

Metacognition empowers learners to plan, monitor, and evaluate their own thinking. In AI-rich environments, teachers can prompt students to ask themselves:

"What did I contribute, and what did the AI do?"

"Am I outsourcing thinking, and is that appropriate right now?"

"How did I decide to use this tool, and what were the results?"

AI can be an effective support for automating routine tasks—like grammar checks, summarising text, or early-stage brainstorming—which in turn frees cognitive capacity for deeper learning. However, this benefit is only realised when teachers provide scaffolding that encourages active reflection and prevents passive over-reliance. For example, students might be asked to quote, critique, and justify both AI-generated content and their own revisions.

Harnessing Cognitive Struggle, Not Avoiding It

While AI offers speed and convenience, real learning often arises from cognitive struggle. Educators must decide when to let students wrestle with a task and when to provide support. Classic scaffolding techniques—such as graphic organisers, guiding questions, or model answers—can help students work through difficulties without removing the challenge entirely.

The goal is to help students reframe difficulty as an opportunity for reflection:

"I'm stuck—what strategy can I try next?"

That moment of self-awareness signals genuine learning.

Teachers should also watch for signs of cognitive debt: reduced engagement, superficial responses, or overuse of AI-generated content. These are cues to step in and reset expectations for independent thinking.

AI and the Educator

Creating the Right Conditions for Learning

An emotionally safe, relationally rich classroom provides the ideal conditions for metacognition. When teachers are freed from excessive administrative tasks—thanks to AI automating marking or resource curation—they can focus on building human connections and modelling resilience. These relationships create the foundation students need to engage meaningfully and persist through challenge.

Strategic AI Integration: Why and When?

Educators should not default to using AI—but choose it with purpose:

- Does this tool enhance reasoning or writing without replacing it?
- Is the task still encouraging ownership and reflection?
- Are students learning to explain, revise and critique their work?
- Will this tool support or undermine productive struggle?

Using AI post-draft (for revision), or as a brainstorming partner after an initial attempt, are effective strategies. The emphasis should remain on teaching students how to use AI rather than relying on it blindly.

Looking Forward: Future-Readiness and Critical Thinking

Even without AI, teaching critical thinking remains one of education's most persistent challenges. But as AI reshapes the global workforce, students need more than content knowledge—they must know how to think flexibly, ethically, and reflectively. Recent UK job market data shows that graduate roles are at their lowest level in seven years (Indeed, 2025), partly due to companies substituting roles with AI tools. While this is more marked in the UK than in other regions, it underscores the need for schools to prepare students to work with AI rather than be replaced by it.

Final Thoughts

To navigate this future, students must become metacognitive learners who understand when, why, and how to use AI—just as they must understand when to persist, when to ask for help, and when to question their own assumptions. Teachers, in turn, must remain grounded in pedagogy, embracing AI not as a replacement, but as a partner in developing thoughtful, resilient, future-ready global citizens.

AI and Assessment

Authentic Assessment in the Age of AI

Output Format: Hybrid Portfolio

To maximise transparency and rigour, each assignment should include:

- Final Product (e.g. debate, video, design pitch)
- AI Conversation Extracts (screenshots or copied prompts/outputs)
- Process Reflection (What did you contribute? What did the AI? What did you learn?)
- Rubric-Based Oral Assessment (based on voice, reasoning, clarity, engagement)

Viva Voce (Oral Defence of Written Work) + AI Reflection Log

- What: After submitting an essay or project (which may have AI-assisted drafting), students orally defend their thesis, explain their sources, and justify choices.
- Assessment Focus: Critical thinking, clarity of expression, awareness of human-AI collaboration, depth of understanding, ownership and voice.
- AI Element: Include original AI prompt + output with annotations showing what was kept, changed, or discarded.

D**esign Brief & Pitch**

- What: Students write a design brief for a real-world product or service and pitch it to a panel (Dragons' Den-style).
- Assessment Focus: Problem-solving, persuasive speaking, market awareness.
- AI Element: Include a section on how AI was used for research, mock branding, or market analysis.

Debate with an AI Coach

- What: Students prepare for a live debate using an AI to rehearse arguments and get feedback.
- Assessment Focus: Argument structure, rebuttal skill, rhetorical fluency.
- AI Element: Students must submit snippets from AI rehearsals and explain what they took on board (or rejected).

Podcast or Vlog

- What: Students produce a short podcast or video exploring a complex topic with narrative, interviews, and personal commentary.
- Assessment Focus: Voice modulation, storytelling, audience engagement.
- AI Element: AI used to generate sample scripts or questions; students reflect on how the AI shaped or challenged their message.

AI and Assessment

Authentic Assessment in the Age of AI Continued...

Roleplay Simulation or Mock Interview

- What: Students roleplay a real-world scenario (e.g., job interview, scientific briefing, client pitch).
- Assessment Focus: Empathy, improvisation, professional oracy.
- AI Element: Use AI to help build personas, prep questions, or simulate responses to practice with.

Ethics Roundtable

- What: Small-group oral assessment where students discuss a topical ethical dilemma (e.g., "Should AI replace teachers?").
- Assessment Focus: Listening, turn-taking, evidence-based reasoning.
- AI Element: Students present arguments generated with AI, then critique them live.

Learning Documentary

- What: Students record a short "documentary" of their own learning process throughout a unit, using interviews, footage, and screen recordings.
- Assessment Focus: Metacognition, presentation skills, reflective oracy.
- AI Element: AI used to summarise, storyboard, or caption parts; must show what they accepted or improved upon.

PechaKucha AI-Enhanced

- What: 20 slides, 20 seconds each. A concise, fast-paced oral presentation on a topic.
- Assessment Focus: Pacing, precision, visual/oral coherence.
- AI Element: Slides or imagery drafted using AI; student must explain rationale and final edits.

Student-Led Seminar with AI Prep

- What: Student leads a seminar/discussion using prompts and questions co-developed with AI.
- Assessment Focus: Facilitation, active listening, oracy in leadership.
- AI Element: Submit a planning sheet including the AI conversation that shaped seminar prompts.

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