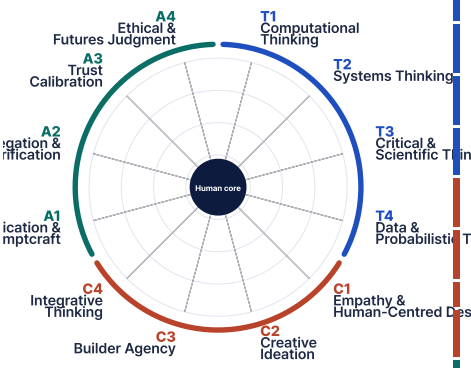
CIT Thinking Compass v1.1

AI gives answers. Your child asks better questions.



T1 Computational Thinking Computational thinking is breaking a problem into steps, keeping only what matters, writing rules that solve it, and checking that those rules actually work.

T2 Systems Thinking Systems thinking is seeing causes and effects as connected loops, and finding the delays, the stakeholders and the leverage points where a small change makes a large difference.

T3 Critical & Scientific Thinking Critical and scientific thinking is testing claims, including an AI's answers, against evidence and controlled experiments instead of accepting them as given.

T4 Data & Probabilistic Thinking Data and probabilistic thinking is reasoning from data under uncertainty, and reading what a model metric such as accuracy does and does not tell you.

C1 Empathy & Human-Centred Design Empathy and human-centred design is starting from real people's needs and testing what you build with those same people.

C2 Creative Ideation Creative ideation is diverging by hand first, extending with AI, then converging by human judgment, so the result stays original.

C3 Builder Agency Builder agency is shipping, from nothing to finished, an artifact that real people actually use.

C4 Integrative Thinking Integrative thinking is connecting disciplines and, when two of them pull against each other, finding an answer that keeps what matters in both.

A1 Specification & Promptcraft Specification and promptcraft is stating the goal, context, constraints, format and acceptance criteria whenever you hand work to a machine or a person.

A2 Delegation & Verification Delegation and verification is splitting work between human and AI through Plan, Delegate, Verify, Review, bounding every AI task and checking everything it returns.

A3 Trust Calibration Trust calibration is knowing, with reasons, when to trust an AI and when to trust yourself.

A4 Ethical & Futures Judgment Ethical and futures judgment is weighing who a creation is fair to, whom it could harm and what it leaves behind over time, and crediting the AI's part openly.

Apex: two first-order skills First Principles Thinking: Every lesson opens with one first-principles question. · Metacognition: Every lesson closes with a teach-back or a calibration check.

CIT Loop Empathize → Map → Compute → Create → Critique → Share

AI in the room, thinking by the student Think-First Window · Tutor-Mode Prompts · Verify Gate · Calibration Check · AI-Off Checkpoint

International (IB, AP)

Element	Compass skills	CIT artifact
IB Approaches to Learning: thinking skills	T3 C2 C4	One-variable experiment log, originality audit
IB ATL: research skills (information and media literacy)	T3 A4	Source-reliability table, AI-use log
IB ATL: self-management (reflection)	A3 C3	Confidence log, reflection log, second-version record
IB ATL: communication and social skills	C1 A1	Interview notes, specification
IB Theory of Knowledge	T3 A3 A4	Knowledge questions drawn from logs of verifying AI answers
IB Extended Essay and Internal Assessment	T3 T4 A2 A4	Research question, data analysis, citations that credit AI use
AP CSP AI Create Project (from 2027-28)	A1 A2 C1 C3	An AI application for real users, its spec and its test record

Korea (curriculum, competitions)

Element	Compass skills	CIT artifact
2022 national curriculum: creative thinking competency	C2 C4	Hand-made idea list, originality audit
Knowledge-information processing competency	T3 T4 A2	Source comparison, data analysis, verification log
Self-management competency	A3 C3	Confidence log, second-version record
Collaborative communication competency	C1 A1	Interview notes, specification
Community competency	A4 T2	Impact checklist, causal-loop diagram
School inquiry and performance tasks (the basis of 세특 records)	T3 C3 A4	Inquiry experience and records students can use in their own school work. Academy lessons themselves are not entered in the school record.
KOAI (run by KITPA) → IOAI national team selection	T1 T4 A3	AI-off checkpoints, model-metric problem logs
Science gifted and science high schools: inquiry	T3 T2 C3	Experiment design, inquiry report

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