

CBSE's future-ready AI curriculum: But are students ready?

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The CT curriculum has been launched in the same year the foundational literacy goal was supposed to have been met. That gap between promise and reality is the risk worth examining carefully. | Photo: iStock/ Getty Images

On 1 April 2026, Union Education Minister Dharmendra Pradhan launched a new CBSE curriculum on Computational Thinking and Artificial Intelligence for students from Classes 3 to 8. The initiative is designed to develop foundational computational thinking skills: logical reasoning, problem-solving, and pattern recognition. It will familiarise students with the role of artificial intelligence in everyday life, starting from the 2026-27 academic session. The minister described it as a transformative step towards future-ready learning. He is right to be ambitious. This is a welcome move.

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But ambition without sequencing is just an announcement.

The foundation we are skipping

There is a four-letter acronym that sits at the base of all meaningful learning: LSRW — Listening, Speaking, Reading, Writing. These are not soft skills. They are the cognitive infrastructure through which a student processes information, builds understanding, and communicates thought. Every subject sits on top of this foundation. So does Computational Thinking and AI.

The new CT curriculum makes this dependency explicit. The curriculum document states that learning standards for CT are designed as foundational capacities integrated into Mathematics, Science, Language, and Social Sciences in the lower classes. CT is not a standalone subject sitting beside language. It is designed to be delivered through language. The resource book for Classes 3 to 5 consists of additional questions and activities embedded into existing textbook chapters. Every puzzle, every pattern exercise, every decomposition task is mediated through text that a child must read, interpret, and respond to in writing.

The learning outcomes for Classes 3 to 5 include: solving puzzles and daily-life problems through visual representations, interpreting texts, and analysing given information. The word interpreting is doing significant work there. The assessments for this stage include written tests involving CT questions and puzzles, group activities, and teacher observation journals. Even the group activities assume a child who can follow written or verbal instructions with comprehension.

In short: the CT curriculum for Classes 3 to 5 is, at its core, a literacy instrument. A child who cannot read at grade level will not experience it as a thinking exercise. They will experience it as a reading barrier.

What the data tells us

This is not a hypothetical concern. We have data, and it is sobering.

The Annual Status of Education Report 2024, published by Pratham, surveys children across rural India. The findings are direct. More than half of Class 5 children in government schools cannot read a Class 2-level text. The ASER reading task has remained unchanged since 2006: can a child read a simple story written for a seven-

year-old? After five years of schooling, more than half of Class 5 children cannot clear that bar.

One might assume this is a rural, government-school problem. That CBSE's largely urban and private constituency is insulated. That assumption is wrong.

The PARAKH Rashtriya Sarvekshan 2024 is the Ministry of Education's own national assessment. It covered 23 lakh students across approximately 88,000 schools, including government, aided, and private schools. The finding was counterintuitive. At Grade 3 level, urban and suburban students in private schools fared poorly compared to their rural counterparts. Students in state government schools scored higher in both Language and Mathematics. The students walking into CBSE classrooms this academic year are not exempt from this crisis. They are in the middle of it.

A promise and a deadline

The government is not unaware of the literacy gap. In 2021, the Ministry of Education launched NIPUN Bharat: the National Initiative for Proficiency in Reading with Understanding and Numeracy. The mission was explicit. Every child in the country must attain foundational literacy and numeracy by the end of Grade 3. The target year: 2026-27.

That target year is this academic year. The same year the CT curriculum is being launched. ASER 2024 gives us the most current picture of where things stand. Reading levels have improved since 2022, which is encouraging. But more than half of Class 5 children still cannot read a Class 2-level text. The NIPUN Bharat mission is incomplete as of the latest available data. The CT curriculum has been launched in the same year the foundational literacy goal was supposed to have been met. That gap between promise and reality is the risk worth examining carefully.

What the curriculum assumes

The CT curriculum's own aims state that it seeks to develop cognitive capacities: logical thinking, critical thinking, and analytical reasoning. These are legitimate and important goals. But they are downstream capacities. They depend on comprehension as a prerequisite. You cannot develop abstract reasoning in a child who cannot understand the text presenting the reasoning task.

Consider what Class 6 asks of a child. At that stage, CT assessments move to project presentations, reflective journals, and written assignments. Teachers are expected to create rubrics to evaluate student performance. This is where AI concepts are also introduced for the first time. A child who spent Classes 3 to 5 struggling to read the CT resource book will arrive at Class 6 without the computational thinking foundations those years were supposed to build. The pipeline breaks quietly, and it breaks early. We will discover the failure at Class 6, the same way we discovered the reading failure through ASER: through data, after the fact, for children who deserved better.

The curriculum document also notes that from Class 6 onwards, evaluations will focus on project presentations, reflective journals, and assigned tasks. Each of these requires a level of written and oral articulation that is built on years of strong LSRW practice. Without that practice, the assessments become a test of literacy deficits rather than computational thinking ability.

The unfulfilled parallel

There is a pattern here worth naming. LSRW was always the stated priority in India's primary school framework. The National Education Policy 2020 described foundational literacy and numeracy as the highest priority. NIPUN Bharat was launched to operationalise that commitment. And yet the data shows the mission is incomplete. CT now risks following the same arc: well-designed, genuinely ambitious, and built on a foundation that has not yet been secured.

CT is now being positioned as the new priority. The curriculum is well-designed. The intentions are genuine. The committee that developed it includes serious academics from IIT Madras, Azim Premji University, and other institutions. The phased approach, the activity-based pedagogy, the ethical framing of AI: all of this is thoughtful.

But if LSRW could not be delivered at scale despite being the stated highest priority, what makes CT different? The same children who fell through the LSRW gap will fall through the CT gap. The same data, a few years from now, will tell the same story. Unless the prerequisite is treated as a prerequisite.

The sequencing question

Countries like Finland, Singapore, and South Korea that have introduced AI at the school level share one thing: high foundational literacy rates. The curriculum reform followed the literacy work. It did not precede it.

India has the institutional momentum to get this right. NIPUN Bharat is producing results. ASER 2024 shows improvements in reading levels, even if the job is not yet done. That momentum must be carried deliberately into the CT rollout. The question is not whether India should teach Computational Thinking and AI in schools. It should, and this curriculum is a meaningful step. The question is whether the children sitting in Class 3 classrooms this year are ready to benefit from it.

A curriculum is only as strong as the child it reaches. That child is sitting in a Class 3 classroom right now. There is a CT worksheet in front of them and a reading gap beneath them. Addressing one without the other is not transformation.

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