

# The New Indian Express

## Education Express



Geometer's Sketchpad is a construction and exploration software that can be used both by the teachers as a teaching tool and by the students as a learning tool

# Math magic

A Children's Day gift from NIIT makes Mathematics easier

**F**OR most of us, Mathematics might be a nightmare. But with the introduction of Math Labs in schools, the study of maths will be more like playing a game.

NIIT, joining hands with US-based Key Curriculum Press Inc., a leading provider of software research and development for Mathematics Education, is introducing Mathematics Laboratories in Indian Schools. The novel concept, Math Lab launched on the occasion of Children's Day, will enable school students to learn and explore Mathematical concepts and verify Mathematical facts and theorems using technology tools such as 'The Geometer's Sketchpad' (GSP) and wide variety of mathematical models.

According to NCERT's National Curriculum Framework, Mathematics will be treated as a prime focus area in schools till 2020, with an emphasis on making the subject more visually appealing and an enjoyable learning experience for students. The CBSE has also issued directives to all schools following CBSE syllabus to install a Math Lab for promoting the subject. "We have conducted pilot

studies in India and will be launching the programme from the next academic year. This Math Labs in CBSE schools and, eventually, in other schools will be a major learning tool towards enhancing the Mathematics learning capability of the students," said L Balasubramanian, president, School Learning Solutions, NIIT.

With Geometer's Sketchpad, students will be able to construct an object and explore its mathematical properties through an exciting visual process; a process that would capture and hold

the student's attention, helping them build a strong foundation in Euclidean and Non Euclidean Geometry, Algebra, Trigonometry, Pre Calculus and Calculus.

"It is a construction and exploration software that can be used both by the teachers as a teaching tool and by the students as a learning tool. For example, in GSP, we don't have an option to create a 3 D model. But a student from China had created a beautiful 3D model using it. Here, students are not passive learners. They should be like

programmers, not the recipients of somebody else's creativity," said Steven Rasmussen, CEO of Key Curriculum Press, while talking to *Education Express*.

Comparing the maths education both in India and US, Steven added that India had a strong base in Mathematics when compared to US. "But here, it is still a paper-pencil work. In 21st century, students need to combine their mathematical knowledge with creativity and technological skills to become powerful problem solvers," he added.

When you construct objects in Sketchpad, you can drag points and lines with the mouse. As shapes and positions change, all mathematical relationships are preserved, allowing the students to examine an entire set of similar cases in a matter of seconds.

Visually appealing learning method is the main feature of GSP. Concepts that may be initially difficult for the students to understand become very clear when they see visual representations on the screen and interact with them using Sketchpad.

Launched in 1991 in the US, Geometer's Sketchpad is being used by over 25 per cent of the secondary schools in the United States. Sketchpad has been localised and published in Japanese, Arabic, French, German, Spanish, Korean, Danish, Slovenian, Czech, Swedish, Hebrew and Hungarian. When quizzed if there is any plan to launch in Indian languages, CEO of Key Curriculum Press said, "We would recommend the use of English language as it would be very helpful to understand mathematical terms. But, if there is a need for it to be translated to any Indian language, NIIT can decide on that."

— K P Riyas