

Mumbai, India

SVKM's CNM School

**Building STEM skills
and growing**



**WORLD'S
BEST SCHOOL**
Innovation

FUNDAÇÃO
Lemann



**WORLD'S
BEST SCHOOL
PRIZES**

Table of Contents

- 02 — Introduction**
- 03 — School Profile**
- 04 — Context and Challenge**
- 07 — Expertise and Approach**
- 11 — Outcomes and Results**
- 13 — Key Steps**
- 17 — Advice and Guidance**



Introduction

SVKM's CNM School in Mumbai, India, took up a challenge in 2018 to radically change its curriculum from a conservative content-based approach to one focussed on competency. The new curriculum is centred on STEM skills, with a focus towards learning about and working towards global issues.

Profile:



Country:

India



Region:

Mumbai



School type:

Private/Independent school



Location area:

City



Student population:

3000+



Prize Category:

Innovation

“Incorporating STEAM skills within students at the onset of primary school will help close the gender gap in STEM.”

**– Kavita Sanghvi,
Principal, SVKM’s CNM
School**



In-depth look

CONTEXT AND CHALLENGE

Established in 1997 by the Shri Vile Parle Kelavani Mandal charitable trust in India, SVKM's CNM School began with just 25 students, one teacher and one support staff. By 2005, the school had enrolled over 3,000 students across eight divisions, from kindergarten to the secondary level, with a faculty of 175 teaching staff.

The school's main ethos is to give every child the opportunity to grow and be equipped with the skills to help contribute to society once they graduate. Because of its large student body, SVKM's CNM School realises that its resources are limited, making adaptability a necessity. "What we are trying to show the students is how to

make the best of their resources, in that particular situation," says Kavita Sanghvi, the school Principal. "To make the best of things, no matter the constraints."

In 2018, the school was unhappy with its educational model and wanted to implement a curriculum that moved the focus from teaching for exams and academic results to one that developed the students' skills and improved their competency. This became more apparent to Sanghvi when compared SVKM CNM to the educational models she had seen as a Head of School in other schools.



“I came back to SVKM in 2018 and realised we were using the same textbooks,” she said, “the educational practices and pedagogies haven't evolved much, and that is when we thought that right now it's important: that more than the content, it's the skills development for the students.”

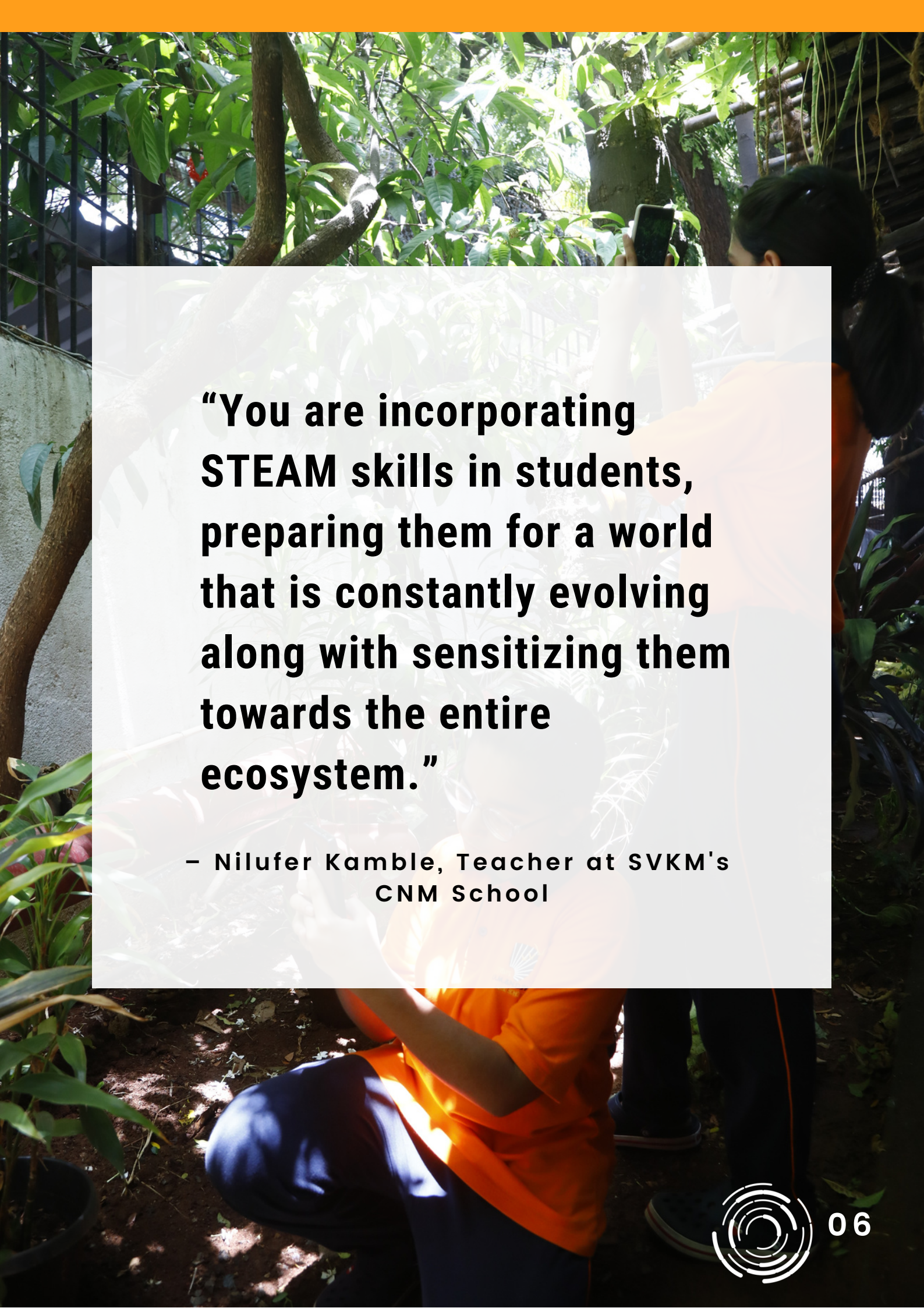
The challenge lay in switching from a traditional and well-established form of education to a more experimental – and largely untested – model. This was exacerbated by the school's history: for years, teachers had taught in traditional methods, achieved excellent board results and thus did not feel the need for change. Therefore, very few faculty members felt the need for radical change.

Parents and the school's upper management felt similarly and, for the school to adopt a new model, Sanghvi and her team had to meet with a number of stakeholders and persuade them of the benefits that a

skill-based curriculum would have towards the students' futures.

Another issue was rescheduling the timetable and changing the dynamic of lessons. To address the issue, the programme had to have an initial test run in which one class was split in half, with one group of 20 students going into one educational strand and the other half going into another. This also called for more teachers to be involved in monitoring and teaching each class, which created a need for additional human resources.



A person wearing an orange shirt is seen from the side, holding a smartphone up to take a photo or video in a lush garden. The background is filled with green foliage and trees. A white text box is overlaid on the center of the image.

**“You are incorporating
STEAM skills in students,
preparing them for a world
that is constantly evolving
along with sensitizing them
towards the entire
ecosystem.”**

**– Nilufer Kamble, Teacher at SVKM's
CNM School**



EXPERTISE AND APPROACH

SVKM's CNM School has proven itself a leader with a modern, holistic, and integrated curriculum that seeks to mould its students into global citizens. Its new curriculum has seen the school launch a 'Global Outlook' programme focused on merging STEM skill building and other subjects to help broaden its students' insights on global issues.

Designed for classes 1 to 7, the programme enables students with the tools and skills to meet the challenges they will face in the future workplace. The school has also updated its facilities to help support the programme, including audio-visual support and interactive games that boost students' creativity and help make lessons more engaging. Moreover, the school has installed an online SVKM Student Portal to support students in their academic projects and assessments. Parents also use the portal to keep abreast of the latest school updates.

SVKM's CNM school organises a number of events, such as 'HI – STEAM', which teaches the history of major discoveries or inventions throughout the ages. Another one is 'Laundry Day', which allows students to experiment and discover how laundry is done across the globe, analysing the different types of stain removers and detergents, like Hydrogen Peroxide, ketchup, olive oil or even juice. At the end of the event, the students presented their findings to their peers and drafted a 100-word reflection essay detailing what they learned.

Another event launched in 2018, called 'Cutting Edge', encourages students to create bags from old dupattas and bedsheets. These bags were eventually sold at a number of events.



During COVID the focus shifted towards selling fashion masks on social media platforms. For these efforts, the School Enterprise Challenge awarded students with the Gold Level award for Business Plan in March 2022.

The school also encourages students to look further afield and engage in projects that develop their knowledge and interest in topics like environmental studies and climate change. In October 2020, the school participated in a six-week 'Climate Change' programme that saw over 10 million students from across 107 countries drawing on expertise from scientists, policymakers and activists from NASA, the World Wildlife Fund, and the United Nations.

Due to the challenges that come with such a large overhaul of the curriculum, the programme has had to go through several stages before full implementation. It began with a pilot programme, conducted with students in the primary grade. The progress was then monitored and reported to management. The exact pilot programme was a small version of "Laundry Day", the success of which led to a bid to incorporate a new curriculum for the school's primary grades.

As a result, two periods a week were devoted to the new educational model. Because 40 students made up one class, the faculty decided to split them in half and put each group on a specific curriculum, swapping them every two weeks.


Kavita Sanghvi, the school Principal, took the lead in advocating for the programme and was given a year to plan lessons, and the wider curriculum, and to relay the idea to the CEO. Once the plan was approved, Sanghvi went on to train the teachers in this



new educational model. Parents were made aware of the nature of the programme before it was implemented and, for two months, the project was closely monitored.

Due to the warm reception, the innovative educational model was finally established. After that, the school began involving parents in further developing the new curriculum and was given a skills-based report – separate from their child’s regular, academic report card – that detailed their child’s progress.





“How are we preparing our students to ensure that they have a bright future? Looking at that in 2018, we started brainstorming and thought: maybe we could introduce a subject that is completely skill-based.”

- Kavita Sanghvi, Principal of SVKM's CNM School



OUTCOMES AND RESULTS

Two years after the new programme was incorporated, the school achieved the NABET Accreditation from the Quality Council of India and was awarded the International Dimension in School Certificate from the British Council in January 2021. The success of the programme motivated faculty to create more dynamic lesson plans. They took feedback from all stakeholders, analysed the feedback, and used it to inform their next steps in setting up new lesson plans.

Parents also became more involved and were taken on as major stakeholders to help shape the educational model to better nurture their children. And because the parents have been so motivated to play a more integral part in the wider school community, the school has introduced efforts to broaden some of their initiatives into the wider

community, such as cleaning up the local beaches, and helping improve the marine ecosystem.

As another community initiative, students have embarked on learning about the different types of cheese. They have visited cheese manufacturers and have begun practising making their own products, showcasing their cheeses at a festival and putting their earnings back into the local community.

When filling out their reflection booklets, students write in greater detail about their thought processes and show how the new educational model has broadened their understanding of themselves as global citizens. When the school first introduced the reflection books, the students were still in the lower grades and wrote very little.



As they have grown older, however, they have grown alongside the programme. As Kavitha Mendonsa, a teacher at SVKM, says: “You come to grade 6 and their reflections are almost two pages long, where they have nearly described the entire journey of a topic.”

Faculty noticed that students’ behaviours in and outside the classroom have improved considerably, with pupils becoming more empathetic towards each other, listening intently to their peers during presentations, and exhibiting a higher level of confidence in their own abilities. “Giving back to society is one of the main features of Global Outlook,” says Kumar, highlighting that students showed a marked change in their world understanding and wanted to find solutions that would help the community at large.



Key Steps



PROFESSIONAL DEVELOPMENT

Kavita Sanghvi, the school's Principal, took the initiative and decided to build her knowledge through courses and reading educational journals and materials. She then networked with teachers and listened to what they observed in their classrooms and how they were imparting skills to students. After completing her research, Sanghvi designed and shared her lesson plans with some of her colleagues for feedback.



STRENGTH AND WEAKNESSES

The second step was studying the school's curriculum and practices and documenting the main strengths and weaknesses. The core faculty, who were helping Sanghvi develop her expertise, attended several meetings. "I created my plan of action, filled the learning



gaps, and then presented it to the management for further action,” she wrote. She also consulted the upper management, including the CEO and incorporated their feedback into future lesson planning.



PERSUADING STAKEHOLDERS

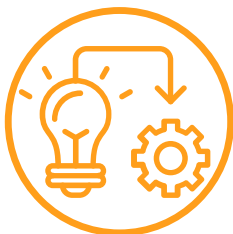
It was important to get all stakeholders, including students, teachers, and parents, to understand and support the vision for change. Staff used PTA and parent meetings to inform the parents of the need to shift towards competency-based education. The faculty shared statistics on how STEM and skills were the future of education. For teachers, Sanghvi conducted staff meetings and organised individual meetings with people who had different opinions. Sanghvi and other members of the faculty spoke to students, informing them of the shift in lesson plans and the curriculum.





TRAINING AND PROFESSIONAL DEVELOPMENT

As teachers were recognised as the key component to the success of the programme, there was a need to place faculty on professional development courses to best instruct pupils on the new curriculum. Sanghvi created timelines, where teachers could practice how to teach students. Sanghvi would play the role of the teacher and had teachers play the role of students. Over time they began to understand how to run classes and were given the space to ask questions and express doubts. Faculty were allowed to add their input to the lesson plans.



EXECUTION OF THE PROGRAMME

The fifth step was putting the programme into practice. As teachers implemented the sessions, they were careful to give students the space to question, explore, and present their opinions. A coordinator was appointed to ensure that all teachers had the right resources and tools, and helped make sure all faculty members were working at a similar pace.





ASSESSMENT AND MONITORING

The school wanted the programme to develop students' skills, so it created rubrics for every lesson. Teachers fill the rubric progressions from novice to apprentice to master or expert, for parameters like Activity Engagement, Research and Data Analysis, and Verbal Presentation of Research. The teachers then use the data from these sessions to create a Reflection Report. This rubric has moved away from content and focuses on skills. Teachers then share a separate report card for Global Outlook with parents.



REFLECTION

The school faculty meet every month and provide feedback to each teacher on how they can improve within the programme. Teachers also suggest changes, reflecting feedback they receive from students. Parents and students are also able to give their thoughts through Google Forms and their feedback is analysed and later used to change lesson plans if needed.



Advice and Guidance

This is not an academic, subject-based curriculum, and it's important to come with an open mind when developing this type of expertise. Students also enjoyed the range of subjects that deviated from traditional learning, expanding the knowledge that they could use in their everyday life. It is useful to weave in potential experiences that might enhance the mindset of students and how they can best contribute to society.

More information

 <https://cnms.ac.in/>

 [CNM & ND Parekh Pre-Primary School](#)

 [@c.n.m.school](#)

 [CNM School ND Parekh Pre-primary School](#)

Read more: the [SVKM Global Report](#)

Learn more about their work by watching their event at 2022's T4 World Education Week: [watch here](#)

