

A CSR initiative by



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MINI SCIENCE LAB





Most of the children have a childhood curiosity of knowing about some natural phenomena which many of them lose by the time they are adults. There is enormous potential for India to become a leading knowledge power provided our younger generation has opportunities for all-round good education and training, especially in science and technology.

The present education system is a structured one that is based on a specified course and also creates a competition for more marks among the students. Science education must make scientists who work and unlock the laws of nature with their efforts.

The students must be taught the fundamentals of science from the schools in such a way that creates curiosity among them. They should be encouraged to have their independent thinking and to learn by doing by themselves.

EXECUTIVE SUMMARY

Science Festivals are unique to a community of schools where such initiatives provide the students with an opportunity to develop and expand their curiosity and knowledge level.

Keeping this thought in mind, making science engaging and fun loving is a distinctive activity undertaken by ARCH Development Foundation in partnership with L&T Technology Services. Conceived and initiated in the year 2016, the main aim of starting the Mini Science Lab project was to ignite scientific curiosity in the minds of the children.

A feasibility study conducted initially highlighted that, except 20-25 schools, the science lab facilities were not available in any other schools.

Thus, in partnership with ARCH, LTTS designed a holistic program, focusing on different components with an aim to make science fun loving and engaging at the same time.

Vadodara being a developed city has about 153 Government aided schools with over 2.5 lakh students, 105 corporation run schools with over 1 Lakh students and 2711 Government schools having more than 10.5 lakh students.

Despite having so many schools and children, the facilities for teaching science concepts against these are almost negligible apart from meager 20-25 schools.

This shows a great deficit in terms of the fact as to why most of the children in the municipal schools do not reach beyond the primary stage.

Science plays an essential role in the development of any country and considering that a major chunk of our children is in the local schools, it is very important to groom them in order to enhance their interest in science and technology.

Research on curriculum by the National Council Education Research & Training (NCERT) Position Paper on science has recognized that the school science textbooks are overloaded with scientific facts.

The factual data is too bland and dry and in this fast moving and technical era, children are not interested in cramming their minds with factual data and monotonous lectures.

The data also mentions that science teaching in India suffers from varied problems like:

It is lagging behind in achieving enshrined values like humanism, scientific temper and social justice in our Constitution.

Science education, even at its best, does not encourage inventiveness and creativity.

Overpowering examination system is the fundamental problems of science education.

Apart from the above-mentioned problems, temperament of the students and teachers towards science as a subject on the whole needs to be changed for greater involvement and interest towards the subject.

Similar conclusions have been also drawn by Aikenhead. According to Aikenhead, students are increasingly disenchanted with the content of school science. School science is full of content which is socially sterile, intellectually boring, and dismissive of student's life.

It does not come as a surprise that most students aren't able to derive meaning out of the classroom teaching of science and thus are unable to correlate with what is being taught in the classroom, with their personal life.

This has proven fatal for ensuring popularity of science as a subject among students and promoted the myth of science as a brainy and difficult subject, resulting in development of fear in the minds of the students regarding taking up the subject.



Science labs prove to be an opportunity for the students to build the scientific temperament and indulge into exploring science through a hands-on experience. Mini science Lab was designed and launched based on the above-mentioned situation and addressing the following objectives:

- Providing hands on experience for science education where students can learn through practical thereby creating scientific temperament
- Create opportunity for students to correlate scientific principles and theory with their day to day life
- Encouraging teaching pedagogy for teachers where theory is linked with the practical experiments.

The Science Lab was thus initiated with the support of LTTS in order to provide the schools with a scientific learning environment.

MESSAGE FROM LTTS

One thing that needs to be taken into consideration while talking about science education is not how to obtain new facts alone, but also to discover new ways of thinking about them.

As the old proverb says “All great things begin with a small step”, setting up of Mini Science Lab was a baby step in establishing a strategic management of science pedagogy.

Started as an initiative to encourage curiosity and foster innovation, Mini Science Lab has become a major activity in developing interest and creating an engaging environment for the teachers and the students into learning science which does not take place in a vacuum.

Such academic endeavors help not only the schools but also the community in creating a cadre of individuals who are rational and are willing to transform self and the community at large.

Through establishing Mini Science Labs, LTTS is contributing towards building a just society where young minds are not devoid of learning due to lack of access of infrastructure.

Through the quantitative and qualitative development of schools with the help of establishment of MSL's in the needy schools, the efforts of LTTS are trying to move from hand-holding of schools to towards making the schools self-sustainable in engaging into activities that enhance and improve the quality of teaching and learning in schools with improved access, equity and equality of opportunities where no child is left alone from the purview of integrative learning.



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