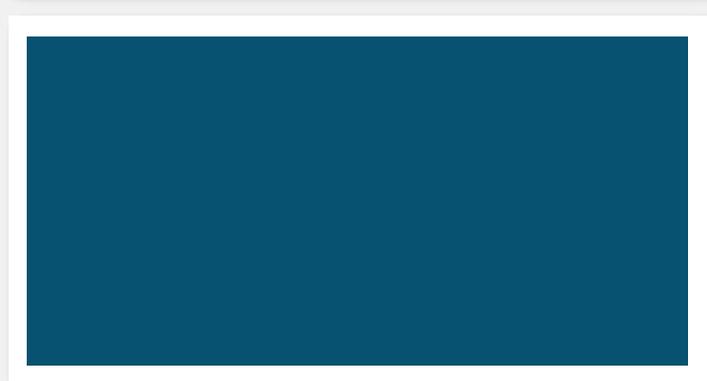
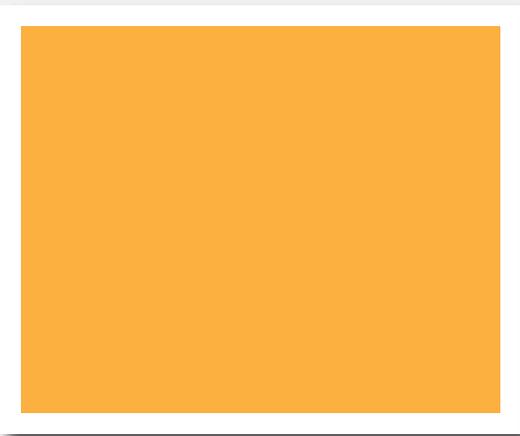




**ANNUAL REPORT FY 2018-2019**  
**PROJECT - BRIGHTER WORLD LAB**





## ABOUT COVESTRO (INDIA) PVT. LTD.

With 2018 sales of EUR 14.6 billion, Covestro is among the world's largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life.

The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself.

Covestro has 30 production sites worldwide and employs approximately 16,800 people (calculated as fulltime equivalents) at the end of 2018. The company is very well established in India with three manufacturing facilities across the country at Greater Noida, Ankleshwar and Cuddalore.

Covestro develops sustainable solutions to the greatest challenges of our age: climate change, resource depletion, urban expansion, population growth and the resulting increase in awareness of environmental issues. These will inevitably lead to a higher demand for renewable energies, alternative resources, energy-efficient transportation, and sustainable, affordable housing.

Covestro aims to meet this demand with long-lasting, light, environmentally friendly and cost-effective materials, which in many cases are suitable replacements for conventional materials such as steel and glass.

We do so by focusing on innovation and sustainability and by following our objective: "To make the world a brighter place". We do all this by staying close to our three corporate values: curious, courageous and colorful. It is this distinctive mindset that enables us to push boundaries and strive for the better.



## ABOUT ARCH DEVELOPMENT FOUNDATION

ARCH is a section 8 social enterprise providing customized solutions to companies and foundations to deliver impactful CSR initiatives, leveraging the strengths of diverse stakeholders in the social sector.

ARCH is working towards development activities through research and study based indices with a view to bring systematic and pragmatic approach to grass root interventions, ultimately thriving for maximum sustainable output.

A young organization backed with years of experience from the people running it, has been rapidly expanding its footprints from its base in Gujarat to Maharashtra, Uttar Pradesh, Haryana, Telangana and Tamilnadu reaching out to more than one lakh beneficiaries across location through various programs.

Projects/programs designed and implemented by ARCH are mainly focused on Education, Women Empowerment, Skill and livelihood and financial literacy to name a few.





## SEE IT. BELIEVE IT. BE IT

Project Brighter World Lab is a holistic and pioneering intervention that transforms learning and understanding science into meaningful and long-lasting experiences aiming to create a life-changing impact on the less privileged section of the society. We believe that only when children see things for themselves do they believe in it.

There is a vast difference between reading from a text book and experiencing it first-hand. Conducting experiments, holding research and being curious allows you to sneak peek into the wonderful world of science. Such sights make belief systems that eventually pave the way for developers, thinkers and future innovators.

Learning by Doing or experiential form of learning is the purest and the most basic form of learning for children that not only makes the concepts clear but also ensures that the retention level amongst the children regarding the matter learnt is high.

Project Brighter World Lab is an academic intervention that aims to make science an accessible, fun filled and enjoyable subject that children do not fear.

The project envisages a lot of hands on experiential learning for the children that transforms the way they learn subjects like science in an interactive as well as an easy way.

Academic intervention through making science accessible and fun filled encourages enquiry and critical thinking in the minds of the children which cultivates curiosity and is essential to understanding and solving problems.

It allows children to find meaning in their learning and make real world connections that impact their lives. To ensure that children are curious, young children should learn science through first-hand investigative experiences and active involvement. They should be able to ask questions, seek answers and conduct investigations. This way, science becomes a way of thinking and a platform to harness curiosity and a pathway to understand the world better.



**Ajay Durrani**  
Managing Director  
Covestro (India) Private Limited

“Covestro believes in providing sustainable solutions with an aim to enhance the lives of the present as well as future generations. The world is changing rapidly and has tremendous challenges to master.

One of the key challenge society will face is availability of talent in pure sciences, especially for emerging economy like India.

Covestro endeavours in helping along the way with technologies and products that benefit society, lessen impacts on the environment and return a profit.

In addition, Covestro also partners with likeminded stakeholders in creating platforms for inculcating interest in science among children who will create solutions for tomorrow’s challenges.

Through this initiative Covestro believes in popularizing science with easy ways to understand the scientific concepts in-order to foster the culture of Innovation and Creativity in young generation.

India needs more and more children to accept science as career for its future growth.

***By these means, we strive to make the purpose of our organization come true: To make the world a brighter place.”***



**Ms. Sharon Sorensen**  
Head of Donations Management – Sustainability  
Covestro AG

India has the youngest population in the world with just over 30% of it’s population under the age of 14 - The Brighter World Lab project is just one initiative where India is leading the way to engage the young in achieving the UN Sustainable Development Goals (SDG’s).

At Covestro we are strongly focused on establishing partnerships that promote and accelerate achieving the SDG’s.

We wish to inspire and stimulate cross-sector determination to secure that we, as part of the global community, achieve the Goals, particularly those which promote education and reduce inequalities.



## **Chintan Joshi**

**Head - Communications**

**Covestro (India) Private Limited**

“Education promotion is one of the key pillars of CSR approach for Covestro in India. We actively explore partnering with stakeholders engaged in popularising science education among marginalised section of the society.

Science is beautiful, intriguing and also very interesting. However increasingly we observe that interest in pure sciences is a challenge faced by every economy.

Covestro in India is committed to make children fall in love with science and discover the beauty around them to make science their preferred career choice.

Schools form the basic place where young, fresh minds are nurtured for a better tomorrow so that they can contribute towards providing sustainable solutions to meet the challenges of the future generation.

By providing the resource set - specially customised for Brighter World Lab having table top working models based on physics, biology and chemistry, we are building the true essence of learning by inviting children to experience science hands-on.

We are also creating an engaging platform for children to showcase their knowledge, skill and excellence in science through several competitions, co-curricular interventions and team work. This ensures holistic scientific progress along with psychological development in children who often lack self-esteem, right educational tools and confidence.”

---



## **Sonkee Shah**

**CEO**

**ARCH Development Foundation**

“Arch Foundation works on a basic premise that if one can do it well, two can do it better.

Collaboration has been a key focus area for work at ARCH Foundation and identification of collaborations for sustainable, holistic development has been the forefront of all work undertaken at the Foundation.

Education forms as a strong base for sustainable development of the children and the nation at large. At ARCH we move forward with a belief that each individual has an inherent capacity to contribute towards developing oneself and the surrounding community, what they lack is guidance and resources.

Innovators are great visualizers who optimise resources in a never-before way. We at ARCH believe that children who play in mud, water and rocks develop an inimitable sense of science that is unique and intriguing.

Project Brighter World Lab is a collaborative and earnest effort in developing a generation of proactive children who are risk takers and have the confidence to think beyond the box.

Project Brighter World Lab is an endeavour to introduce play to a child’s innovative framework taking offbeat approaches and making whimsical connections to the school syllabus. We are determined to create a new generation of passionate, curious, fearless and purposeful children.

Covestro has ideas and resources; ARCH is the bridge that connects those ideas and resources with the needy and compassionate individuals who can make the world a brighter place!”

# BRIGHTER WORLD LAB

## STEPPING UP INTO A STRIDE

Schooling is a crucial stage in the learning hierarchy, as it prepares the students for higher education and also for employment.

In India, only 29% of children attend private schools, while the remaining head for Government or State funded education. Most children enrolled into government aided schools belong to families of blue-collared workers.

While there are array of problems that plague the educational system today, the biggest of all is the drop-out rates of children who seldom reach the upper primary level.

The main reason attached to this ever increasing drop-out rates in Government aided schools is the lack of interest followed by low motivation to learn and above all unavailability of or poor infrastructural facilities that provide no boost for learning at all.

Lack of material resources is often linked to the fact that children are not motivated to learn enough, even if the resources are available, there are no trained teachers to facilitate learning.



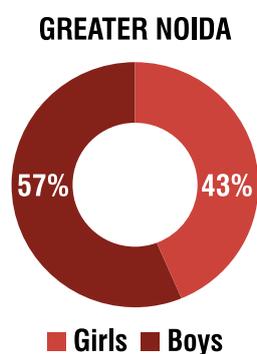
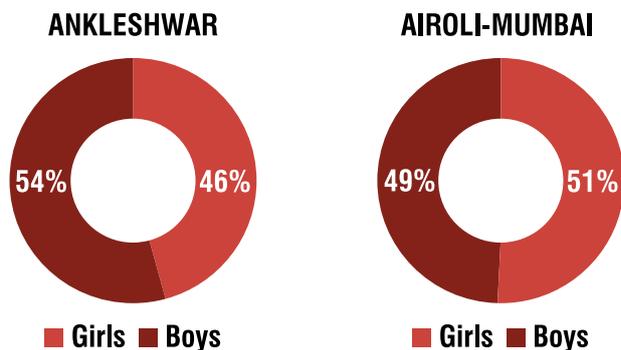
For many children, Science is an interesting subject but more often than not, they abandon the very idea of taking it up further for learning as they are not supported by the necessary elements to learn and develop their growing curiosities into knowledge.

Brighter World Lab, an initiative by Covestro, was born in 2017. With the purpose of promoting scientific reasoning among children and creating a new generation of analytical thinkers the project was launched with making installations of 10 Maths and Science laboratories in four cities; Greater Noida, Ankleshwar, Mumbai and Cuddalore.

The baby steps that Project Brighter World Lab took in its first year were limited to making infrastructural intervention in the government aided schools whose poor infrastructure resonated with the poor aptitude that children bore against these subjects.

With 20 lab installations in three locations - Greater Noida, Ankleshwar and Mumbai a formidable structure to the project with a three year comprehensive execution plan was developed.

# PROGRAM OUTREACH



*“To ignite scientific interest in children so they can learn through discovery and connect scientific knowledge of text book to their world.”*

A total of 25 Government Schools were covered from three cities of Ankleshwar, Airoli-Mumbai and Greater Noida.

A total of 16,070 children were benefited from this program out of which 7,244 were girls and 8,826 were boys. We could see an almost equal participation of boys and girls in the Brighter World Lab Project.

What was more important was to ensure that the training of trainers, that is, the teachers also take place in good number. Hence it was ensured that teachers are given training regarding usage of the lab equipment and delivery of the material to be taught.

For the purpose of training, 65 teachers engaged in teaching science to the children at the secondary and higher secondary level were trained and ensured that no stone is left unturned in training the main stakeholders.





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### **Education for Everyone**

Education forms not only a fundamental right but also is the pathway to a qualitative development in life. India is a democratic country and the success of a democracy depends upon education of its citizens. Equality of opportunity in education is must to ensure that no child is left behind from aspiring for better opportunities for the future. Covestro believes that there is a great need for emphasizing the equality of opportunity in education and thus it ensures that the unreached in terms of academic development are reached and are given opportunities to learn and grow and arouse their curiosity and quest for knowledge. Covestro identifies the most under privileged schools where the children have a natural desire to learn and ensures that Brihgtter World Labs are set up to take into account the learning requirements and needs of the teachers, students and the school administration at large.

### **Training of Trainers (ToT)**

Training of the teachers is directly relational to the achievement levels of the students and to the fact that interest in the subject matter is created. Teachers have to possess a great deal of knowledge and skills related to both teaching as well as assessment practices in order to meet those demands and standards of quality education. ToT forms a continuous process that promotes the teaching skills and the methods of delivering a particular subject to the students. It not only leads to enhancement of the subject knowledge but also ensures that the teachers are abreast with the latest technologies and material for making the teaching and learning process an enjoyable journey.

01

02



## **STRATEGIC FOCUS AREAS**

03

### **The Spectacle**

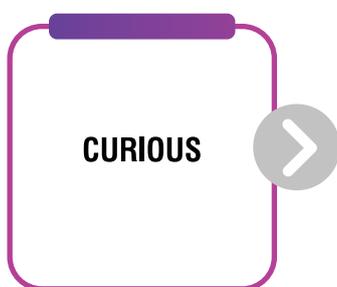
Covestro believes that what is learnt must be exhibited so that creativity can flow and interactions can emerge and thus learning becomes a continuous and a collaborative effort. A platform called Spectacle is provided to the students in the form of creative and competitive platforms to showcase their talents and in the process learn from one another. This platform serves as a hands-on experience to the students where they are independent creators of their master piece and thus in the process become active drivers of their learning process.

04

### **Collaborations**

No activity can be sustained in a vacuum. At Covestro, we believe that collaboration is the key element for sustainability, be it with the partners, drivers for change or the community beneficiaries at large. Active collaborations with various organisations are sought to ensure that the project is a self- sustainable one and in turn leads to the over all growth and development of all the partners involved in driving the positive change in the children.

# CORE VALUES OF PROJECT BRIGHTER WORLD LAB



To fuel interest and allow kids to remain inquisitive we set up 20 Brighter World Lab in schools with more than 110 working models in each facility and designed a new approach for hands-on scientific learning amongst school students which encouraged them to explore and discover their own learning.

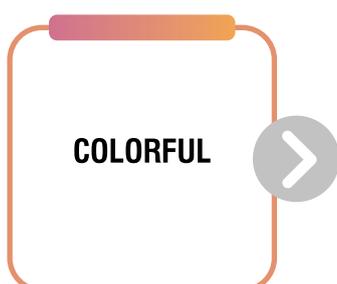
Through BWL intervention – ‘Science Club’ created a unique proposition encouraging students to undertake Do-it-yourself activities based on principles of chemistry where they learnt novel ways to conduct experiments and surveys first hand.

When children are made the active drivers of their own learning, natural curiosity is aroused and the interest is automatically generated.



The project was designed to also hone spirit, confidence and competitiveness in students through interesting activities like competitions, debates and discussions that gave them a platform to present their thoughts, ideas and scientific point of view.

The scale of these events was a new exposure for them which gave them self-assurance of their own abilities, a drive to excel, a sense of healthy competition and an opportunity to perform.



Children often take Science to be a boring subject surrounded by books alone. By ensuring that a pop of colourful experiments and learning aids are added to the curriculum in the first year itself, Project BWL has managed to make a powerful impact and leave a lasting impression on the target audience.

We built this value by teaching students the true worth and importance of science and how it makes our life joyful and colourful

# PROGRAM PHASES

*The Program phase for Project Brighter World Lab had three main Phases:*



## THE RESEARCH PHASE

This is the most important and crucial phase for any intervention based activity which identifies the core areas where most work needs to be done.

**The research phase included the following:**

**01**

**Selection of Schools based on preliminary assessment:**

A minimum criteria was set up for selection of the schools based on which the BWL would be set up in the schools. The criteria included that the school be completely Government aided and caters to a majority of the children coming from a low socio economic background.

**02**

**Obtaining permission from the concerned authorities regarding implementation of the project:**

Taking the authorities into confidence, specially the Education Department was of utmost importance so that a realisation is struck that such facilities are required in the schools for the children to learn and grow. The school authorities were also taken into confidence regarding the expected outcomes of the project activities.

**03**

**Baseline study to assess current status with regard to the outcome indicators:**

A baseline study to identify the current prevailing situation of labs in the schools and to assess the gap between what is available and what ideally should be available was conducted which gave an idea as to what basic interventions need to be worked upon.

**04**

**Define Qualitative and Quantitative targets for three years to be monitored every year:**

Based on the intervention plan, a basic idea of the assessment and evaluation plan of the interventions were planned at regular levels to assess any loopholes that could be encountered in the effective implementation of the programme.

*The expected outcomes of the research phase helped in identifying the needy schools and clearly defined year wise deliverables with the output indicators. This helped in providing a blueprint regarding effective implementation of the programme.*

# THE IMPLEMENTATION PHASE

The implementation phase is the actual phase where actual deliverables were sought.

The following steps were incorporated in the implementation phase:

01

## Setting up lab in the schools and developing time table:

The first step of implementation was to start building the labs in the schools with the help of necessary infrastructure. Once the lab was set, a formal time table to ensure equity in terms of access to all the students was devised with the help of the school administration.

02

## Formation and orientation of Project Management Committee:

To ensure that the deliverables are provided on time and each child gets access to the learning materials equally, an in house project management committee was formulated and oriented to over look the effective implementation of the programme objectives. This was a collaborative effort of hand holding of the school administration so that sustainability and continuity of the program is ensured.

03

## Training and Workshop with Teachers and Students:

This was the first premier where orientation to the teachers and the students was done for the first time. This was important to arouse the curiosity in the minds of the children. Both the teachers and the students were oriented to the lab equipment and their usage. This itself showed the interest levels of students and teachers in using the Brighter World Lab.

04

## Competition and Events at school and project level:

To give more boost and enthusiasm to the children, competitions related to science were held where the students and teachers could show case their scientific creativity and share amongst each other and learn through effective communication.



# EVALUATION PHASE

Monitoring and evaluation form a very important aspect of any project as it helps in analysing smooth functioning of the project activities.

**The evaluation phase included comprehensive activities which involved assessment of each and every aspect of the project implementation.**

01

## **Developing impact matrix and evaluation:**

A matrix to assess the impact of the intervention on the learning levels of the students was devised along with effective tools to know where the children are learning effectively and where more intervention strategies are required.

02

## **Program Evaluation:**

A 360 degree program evaluation from the perspective of all the major stakeholders was necessary to learn the effectiveness of the program and difficulties if faced by them in the process of teaching and learning both. This helped in identifying the loopholes that required urgent attention to make the program more effective.

03

## **Analysis and Reporting:**

After analysing the implementation of the programme in terms of whether the broad and specific objectives are met, reporting and documentation of the activities was a necessary activity which had to be in place in order to make it a ready reckoner for future interventions.

04

## **Report sharing with authorities and key stakeholders:**

Since a lot of stakeholders were involved in the implementation of the project. They key authorities who were taken into confidence regarding the project activities had to be told about the project outcomes and a detailed report of the outcomes was shared with the stakeholders. This formed as a yardstick to measure the outcomes which were decided at the time of the conception of the project and the actual outcome.

***The entire exhaustive process involved in creating and implementing Project Brighter World Lab helped in measuring the program with the committed target and deliverables at actuals.***

***Corrective measures to take strategic interventions for loopholes encountered were identified for future implementation.***



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# OBTAINING PERMISSION FROM EDUCATION DEPARTMENT

Keeping the major stakeholders viz. the Education Department in the main purview of the project, permission to intervene in the already existing school curriculum, framework and structure was sought so that the implementation is uninterrupted and in line with the broad objectives of the education department.

This also helped in ensuring credibility of the program implemented and sought participation of the school administration with ease.

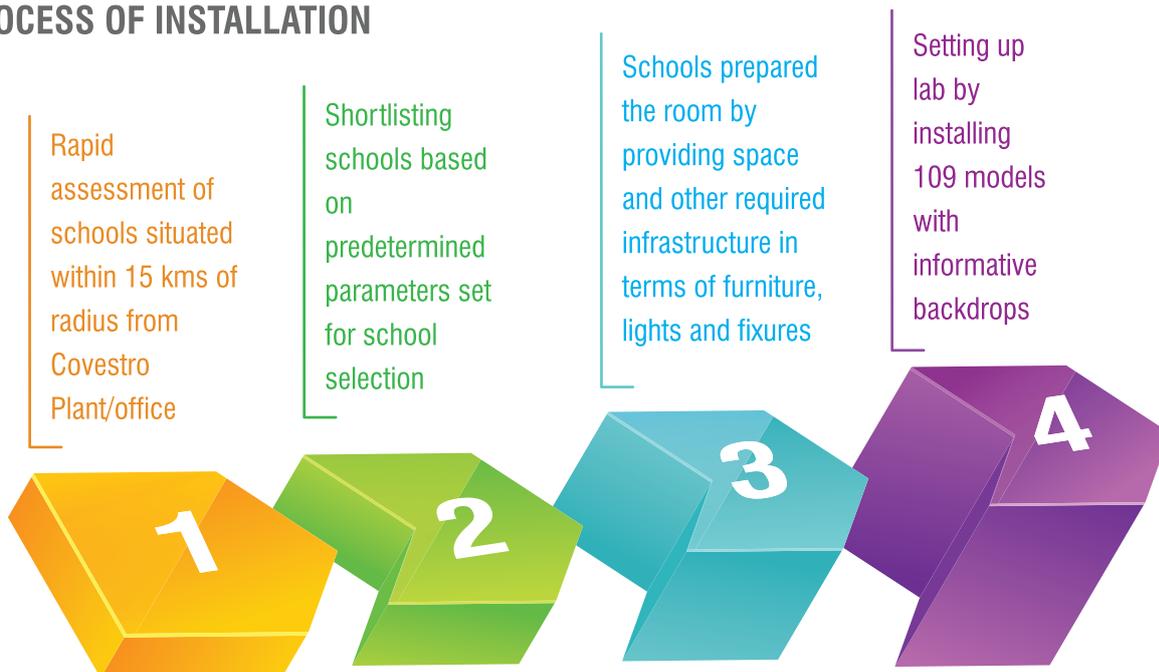
This was a necessary step so as to take the Education Department Officers into confidence that what Covestro is doing, is in the larger interest of the students and the schools on the whole, which will not only develop the capacities of the students, but will also play a major role in ensuring participation and retention in the school by the students and thereby increase the cover area of the schools in terms of enrolment of students at a secondary and higher secondary level.

This activity can give a boost to the Education Department also in terms of taking up such developmental activities in other schools, or scaling up such projects in the near future so that a larger population of school going children is covered and thus benefitted by the very idea of making Science as a subject experiential and at the same time simpler for many students who think it is inaccessible to them.



# INSTALLATION OF BRIGHTER WORLD LAB

## PROCESS OF INSTALLATION



The basic work of setting up Brighter World Lab began with a rapid assessment of school situated within the fifteen kilometres radius from Covestro Plant. An assessment in more than 53 schools were done to identify whether there was a felt need of the facilities which was further based on pre-determined parameters and criteria set for selection of the schools.

### The selection criteria included the following:

- 1** The school should have a functional secondary and higher secondary section with students belonging to the under-privileged section of the society.
- 2** The schools should be completely Government aided with no existing lab facilities. Schools which were partially Government and partially trust aided were eliminated from the selection.
- 3** Availability of infrastructure and willingness of the administration and staff to provide space and furniture to install a lab with necessary electrification points for some electrically operated models.
- 4** One very important criterion was to ensure that the school management would be willing to take ownership of the project once the installation and basic necessities were provided by Covestro so that the project is made a self-sustainable one.

The schools which met the basic parameters were thus selected as a beneficiary school and finally 20 schools across three locations were selected to set up the Brighter World Lab.



**STAGE 1 - ASSESSMENT OF SITE**



**STAGE 2 - SITE PREPARATION BY SCHOOL BEFORE INSTALLATION**



**STAGE 3 - FIXING OF SIGN BOARD**



**STAGE 3 - FIXING OF BACKDROPS IN BWL**



**STAGE 4 - SETTING UP MODELS**



**STAGE 5 - VERIFICATION OF MODELS BY SCHOOLS INSTALLED IN BWL**

# PROGRAM ORIENTATION

As the old saying goes “Rome was not built in a day”, similarly project Bright World Lab was also not planned and executed in a day. No project is conceived in a day. Every project is implemented only after a detailed research, deliberations and after forming a concrete action plan to execute it.

Once the project was planned, a session to orient the stakeholders about the project was conducted. The group of stakeholders mainly involved the Principal’s, science teachers of all targeted schools and NGO’s working in same area. The reason behind this orientation was to build the stakeholders level of optimism towards the program and also to create a sense of ownership in them.

For the success of any program the participation of every stakeholder is a must. Thus a collaborative thinking was done, in order to involve all the concerned parties to take positive and formative steps in structuring the program, creating the annual event calendar and to infuse enthusiasm in all, for a change to happen.

The views of the participating members .i.e. the stakeholders is a must to create a better plan of action for implementing the project, as they are the ones who will work on the ground and have more clarity of field reality.

Thus in order to get insightful views and suggestions of the stakeholders for effective implementation of the project, they were given a detailed idea of the project outline and its expected outcomes.

The basic idea was to strike a collaborative effort to ensure optimum and effective participation of the stakeholders, which will be self sustainable in nature towards effective implementation of the project and in the process leads to the overall development of the community at large.

The program orientation was conducted at the schools of Greater Noida on 19<sup>th</sup> September 2018 and at the schools of Ankleshwar on 28<sup>th</sup> September 2018 respectively.



# PROGRAM LAUNCHING & INAUGURATION OF BRIGHTER WORLD LAB

Launching and inauguration process of a project is an important aspect to create awareness about the project in the community and to spread a message about it. Similarly project Brighter World Lab was also launched and inaugurated at the following places in a proper manner:

## ***Airoli, Mumbai - 31<sup>st</sup> October, 2018***

Science is not a magic, but it sure creates magical moments of wonder and joy in the minds of a curious person! With great enthusiasm and determination, the first Brighter World Lab was launched by none other than the MD of Covestro – Mr. Ajay Durani accompanied by Mr. Mathias Poth – Head of Communications of Covestro, marking the launch of the program.

The global team of Covestro created a never before environment of hands on learning by conducting number of D-I-Y experiments of different kinds for and with the motivated and enthralled children present there as the rapt audience cheered on the entire inaugural function.



## Greater Noida – 17<sup>th</sup> December, 2018

This inauguration marked the realm of experiential learning.

Inauguration of the Brighter World Lab at KCS Girl's School in Greater Noida marked the launch of the project in all 11 schools covered under this project at Greater Noida.

Covering 11 schools in Greater Noida the benefits of this project were extended approximately to 8000 students of 6th to 10th standard.

Dr. Yogendra Chauhan – Head PUR Business (India) along with Mr. Chintan Joshi – Head Communications of Covestro (India) launched the project adding another feather in Covestro's cap.



**Gyandeeep School, Ankleshwar  
21<sup>st</sup> December, 2018**

The launch of the Brighter World Lab in Ankleshwar, by Mr. Bawanji was a hallmark event witnessed by Covestro Ankleshwar & Mumbai team, school principals, science teachers from all the 8 schools of Ankleshwar covered under this project and the students. It was indeed a delightful experience to see a new wave of positivity in all the stakeholders.

Under the project execution by Covestro, this has been a remarkable achievement for Ankleshwar as 8 schools are getting benefits of this project and number of students getting a better learning experience.



# TEACHER'S TRAINING PROGRAM AT GREATER NOIDA, MUMBAI AND ANKLESHWAR

Teachers are tasked with the primary responsibility of influencing and encouraging students to be better learners. Teachers have a duty to ignite the learning minds of each and every student. More effective a teacher is more will be the interest and excitement in the students to learn new things.

The class participation of every other student depends on how much the teacher is able to keep her students engaged through her teaching methods.

The training of the teachers was a requirement of this project as the success of the project largely depended on how the involved teachers executed this project and how they made it fun filled learning experience for the students.

The intervention to develop the human resource involved in the implementation of the project was also an important aspect of this project.

The aim of this intervention was to build a stronger and empowered work force on which the success of the implementation of this project also depended.

Two day comprehensive training was conducted for all the science teachers, during which they were trained on how to use the various models installed in the labs and how to foster learning habits in the students. Only if the teachers were well equipped with the lab then only they would be able to explain and teach the same to the students in the right manner.

Keeping this mind the teachers were trained in every aspect to make them well versed with the science lab so that they could implement the project in most effective manner and the students get best out of it.

***A total of 65 teachers got trained under this training program.***





# SCIENCE QUIZ PROGRAM AT GREATER NOIDA AND ANKLESHWAR

A three day quiz program and various fun filled learning activities were conducted for all the beneficiary schools under this project.

At Covestro the belief is that quizzing has multiple benefits which include providing a platform for sharing and gaining knowledge, seek opportunities to excel beyond academics, indulge in learning out of syllabus and classroom, developing habit of team work among the students and providing them with an exposure on handling real life pressure situations.

## DAY 1

### SCREENING ROUND

At first a screening round was conducted, in which the beneficiary schools were asked to send 10 teams and each team consisting of two students (One student from grade 7 and one from grade 8) from Greater Noida and Ankleshwar region respectively.

Together the teams had to solve 50 science based Multiple Choice Questions (MCQs) in a period of 1 hour

The top 16 highest scoring teams qualified for the semi final round.

## DAY 2

### SEMI FINAL ROUND

For the battle in the semi final round, the top 16 teams were divided into 4 different groups and each group having 4 teams in it.

Every team attempted more than 38 questions based on reasoning, chemistry, general knowledge and practical scientific questions based on everyday life activities.

The winner of each of the four groups was then declared as the finalist and they qualified to play the third and final round of the quiz competition.

## DAY 3

### FINAL ROUND

The four teams battled it out in the final round giving tough competition to each other.

In the final round there were questions based on simple machines, latest science based events, logic driven questions and picture identification. The final round was very engaging and competitive.

The winner of the mega Science Quiz Competition was Gopichand Girls Inter College from Greater Noida and XYZ from Ankleshwar.

The quiz competition was organized at Greater Noida on 13<sup>th</sup> to 15<sup>th</sup> November and at Ankleshwar on 30<sup>th</sup> November to 4<sup>th</sup> December 2018.



# SCIENCE CLUB

Little interjections and direct interventions of science with students have a compounding and lasting learning impact on their minds. The more practical exposure and experience the students have the more they are able to learn and understand the applicability of Science in daily life.

Also if the students get practical experience they will be able to relate it more with the theory they learn in their classroom. The combination of practical and theoretical knowledge gives a better experience to a student in terms of understanding and learning concepts in an easy manner.

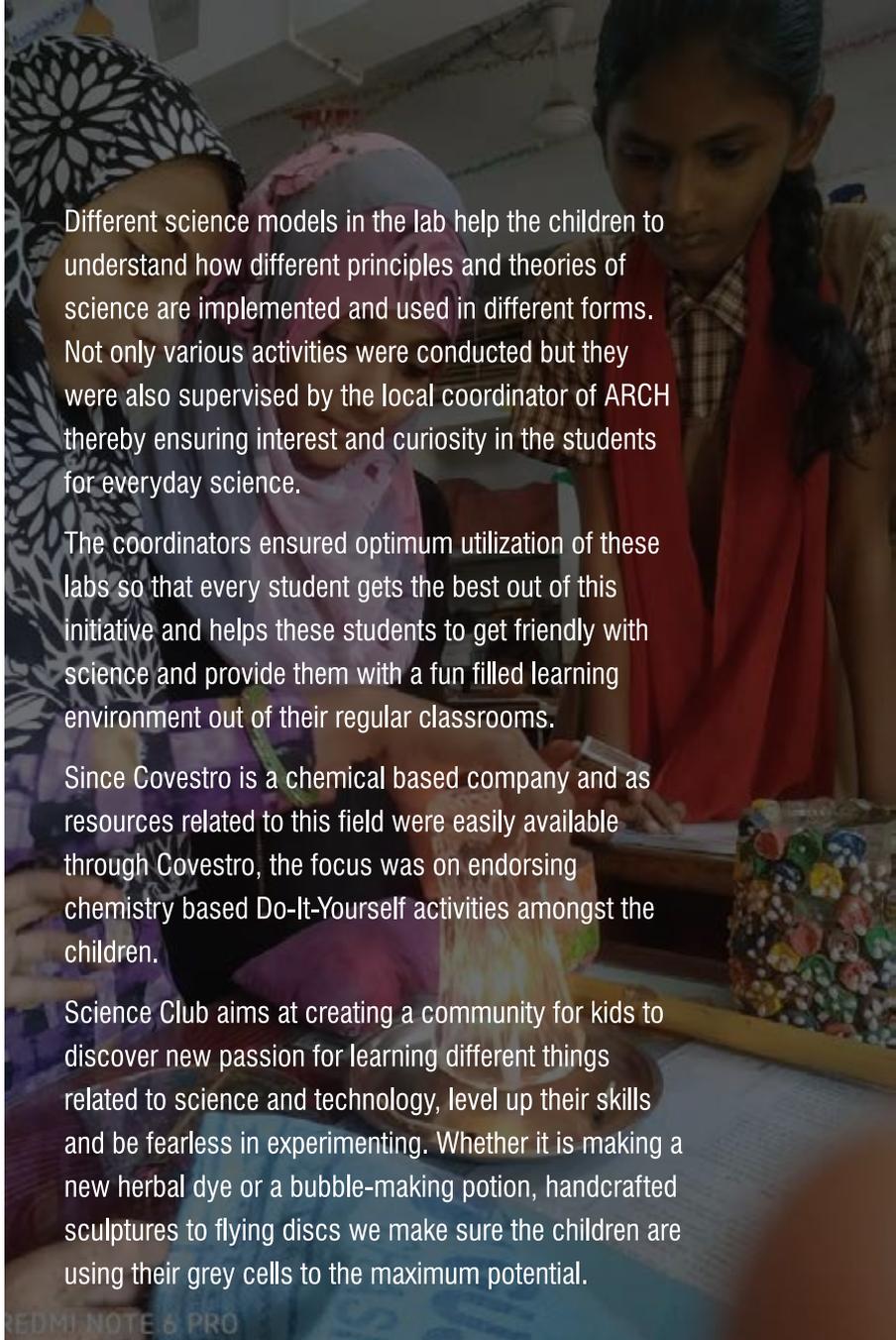
Thus ARCH for the very first time introduced 'Science Club' in all beneficiary schools where big and small activities were conducted to provide the students with a better learning experience. Various practical experiments were conducted in the lab to give the students a better learning experience.

Different science models in the lab help the children to understand how different principles and theories of science are implemented and used in different forms. Not only various activities were conducted but they were also supervised by the local coordinator of ARCH thereby ensuring interest and curiosity in the students for everyday science.

The coordinators ensured optimum utilization of these labs so that every student gets the best out of this initiative and helps these students to get friendly with science and provide them with a fun filled learning environment out of their regular classrooms.

Since Covestro is a chemical based company and as resources related to this field were easily available through Covestro, the focus was on endorsing chemistry based Do-It-Yourself activities amongst the children.

Science Club aims at creating a community for kids to discover new passion for learning different things related to science and technology, level up their skills and be fearless in experimenting. Whether it is making a new herbal dye or a bubble-making potion, handcrafted sculptures to flying discs we make sure the children are using their grey cells to the maximum potential.





# EUREKA SCIENCE FEST





## EUREKA SCIENCE FEST AT GREATER NOIDA & ANKLESHWAR

Science is a celebration and an enjoyment for those who wish to learn new things through experiments and practical exposure.

That is how the Eureka Science Fest, a gala 3-day event promoting science and scientific learning, was enjoyed at Greater Noida and Ankleshwar locations by all the students.

The aim of Eureka Science Fest was to provide with a whole new learning approach, not only to the children and teachers but also to the public at large.

The importance of science and technology has just grown with time in our day to day activities. Thus the goal was to provide everyone with an environment to know more about science and its application.

The philosophy of the project was to allow children to enhance their understanding of science through a play-way method. It is a well known fact that more the visual aids and practical tools are used for teaching the more the child will be able to retain in his mind the things he saw and learnt.

A student will be more easily able to recollect in his mind the things he saw rather than the things he read in his textbook.

Thus the Science Lab aimed to create an atmosphere where the students could feel more engaged and could learn through more fun filled and experimental activities.

This Science Fest not only provided the students with a learning opportunity but also gave them a platform to showcase their ideas and investigations by creating, displaying and sharing with the audience different forms of Science models and presentations.

The students also conducted different Do-It-Yourself activities for the interactive audience.

This opportunity gave the students to explore their scientific and technological creativity, learn about different things and also helped them to develop their confidence and sense of pride as they got a chance to present their talent on a bigger platform.

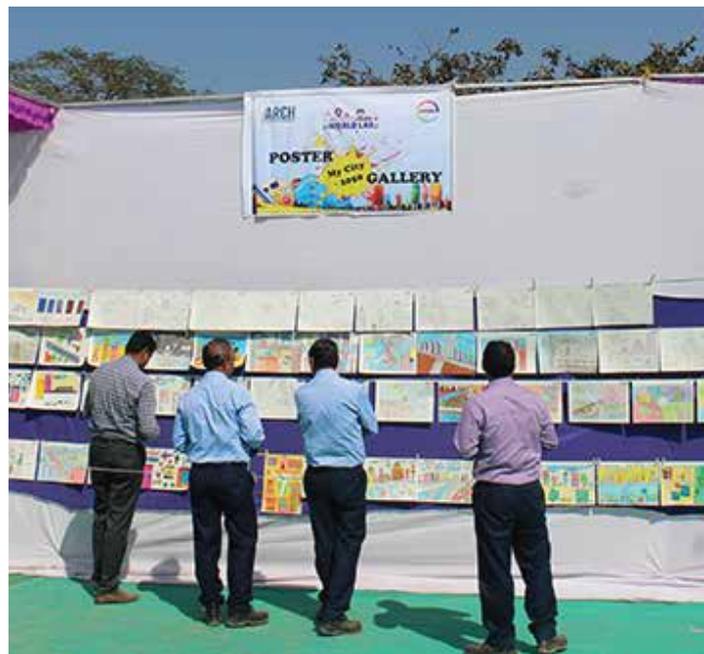
# DAY 1 - POSTER COMPETITION

The Eureka Science Fest event kick started with a poster competition in which students from the beneficiary schools under the Brighter World Lab project took part with great enthusiasm. The theme of the competition was “My City/Village 2050”. The creative aspiration and colorful imagination of the tiny tots caught the attention of one and all. The poster’s very amazingly reflected the thoughts and ideas of the students about their city/village which they would want to see in 2050.

Different themes were covered which included urbanization, industrialization, digitalization, infrastructural development, farming and agriculture, and various other themes related to the Indian society. One couldn’t miss the presence of robots, fewer green spaces and multi-layered vertical expansion and the use of flying cars to beat road traffic.

A common problem highlighted by most of the students was of the rising levels of pollution that would be a great hazard to our environment in the near future. The students through their posters raised concerns about different kinds of pollution like air and water pollution that happen through number of industries, noise pollution happening through heavy traffic which also pollutes the air, cutting down of trees leading to deforestation and other such related issues leading to environmental degradation.

Schools not part of the Eureka Science Fest but falling under ARCH’s operational area were also invited for the event that saw 3500 students participating in a two month time period. Winner posters from every location would now compete for the State level and then National level competition which was held in March 2019.



## The Poster making competition was held in three stages:

01

### School Level:

The first stage was conducted at the school level where the students from the school participated.

10 best posters from the school were selected and submitted to ARCH Foundation for the project level competition.

02

### Project Level:

The project level was more of an inter-school competition where the competition was amongst all the schools coming under the geographical location of the project area.

Best 5 posters from the project stage were selected for the final competition.

03

### National Level:

This was the final lap for the project where 8 best posters were selected at the National Level.

Out of the 8 best posters selected, 4 were from the students belonging to schools where the Brighter World Lab Project is being implemented.

The winning students were awarded with certificates and trophies to motivate and reinforce them for engaging into further such activities.

This poster competition has given the students an opportunity, not only to display their creative ideas and thoughts but also to compete at State and National Level which is a big platform to boost their confidence and to encourage them to express their thoughts in a more fascinating manner.



### Dates:

**Greater Noida - 8<sup>th</sup> January, 2019 / Students Participated - 600**

**Ankleshwar - 17<sup>th</sup> January, 2019 / Students Participated - 450**

**Mumbai - February 2019 / Students Participated - 120**

# DAY 2 - DEBATE COMPETITION

The second day of the event saw a great debate competition, where students battled out to support pros and cons of different topics.

Number of students took part in this competition showing their oratory skills and knowledge on different topics. Every participant gave a tough competition to each other.

In Greater Noida the topic for debate was "Extensive use of technology to extract natural resources". Number of students spoke for and against the topic.

Many of them talked about the benefits of extensive using of technology to extract natural resource meanwhile many of them mentioned about the drawbacks of the same.

In Ankleshwar the topic for debate was "Use of mobile in the field of education". Here also number of students spoke on the pros and cons about the usage of mobile in the field of education.

The performance of the students was awe-striking considering most of them were first-time debaters who earlier never had such an experience of debating at such a huge platform.

Quick thinking, sound argument, and confident speaking kept the atmosphere electrifying.

The intellectual discussions not only kept the participants actively participative in the debate but also saw the audience being so engrossed in the debate as well.

The major attraction of this debate competition was the witty one-liner responses the participants gave to each other during the debate, which kept everyone entertained and involved.

*Greater Noida - 9<sup>th</sup> January, 2019  
Students Participated - 52*

*Ankleshwar - 17<sup>th</sup> January, 2019  
Students participated - 44*





**ARCH**  
DEVELOPMENT EDUCATION

**BRIGHTER  
WORLD LAB**

**covestro**

**DEBATE COMPETITION**  
Increased use of mobile for education  
**ADVANTAGES**

# DAY 3 - EUREKA SCIENCE FAIR

Saving the best for the last, the event ended with a larger-than-life Science Fair where students from several schools participated with great enthusiasm and excitement. Project Brighter World Lab gave the students an opportunity design, create and display science puzzles, math games and working models on physics, innovation and technology.

During this Science Fair the students not only exhibited their knowledge in the field of Science and Technology but also interacted with the audience and kept the learning spirit high. The students made the environment very lively through their involved participation.

Further, Covestro being a strong supporter of STEM education for girls, an entire section of the fair was exclusively created for girls where they could perform chemistry based Do-It-Yourself activities. This was also done in order to promote girl education and make the parents and girl children more aware of it.

At the end, winners from each category were awarded with trophies and all the participating students were felicitated with certificates. This has motivated more number of students to take part in such competitions.

The zest with which the students participated, the look of admiration in the audience, the streak of optimism in the teachers and the glorification of science has truly left our hearts warm and happy. The project has been truly beneficial to a number of students as it has given them an opportunity to learn more and to explore their areas of interest.

We at ARCH believe that the mega Science Fest is truly a celebration of learning and are committed to take Eureka Science Fest in other States as well, with a more creative and innovative approach in the next coming year and to reach out to more number of schools and students.

*Greater Noida - 10<sup>th</sup> January, 2019*  
*Students Participated - 240*

*Ankleshwar - 18<sup>th</sup> January, 2019*  
*Students Participated - 240*





**WINNER  
TEAM  
FROM  
GREATER  
NOIDA**



**WINNER  
TEAM  
FROM  
ANKLESHWAR**

# GLIMPSE OF EUREKA SCIENCE FAIR @ GREATER NOIDA & ANKLESHWAR





# CHAMPIONS OF NATIONAL LEVEL POSTER COMPETITION

## BUILDING A NEW WORLD, IMAGINATION BY IMAGINATION!

***“Never give up on what you really want to do. A person with big dreams is more powerful than one with all the facts.” – Albert Einstein***

At Covestro, we believe that imagination is the key to a happy world and giving the imagination of kids a pathway means building future stalwarts who can dream big and act big.

School intervention programs at Covestro in collaboration with ARCH Foundation have always been about developing the child holistically. While academic intervention is important, it is more important to spark the creative side of the children as imagination is where the dreams of children rest.

With this mantra, a poster making competition was held for the students of Government Schools by ARCH Foundation in various cities on the theme ***“My City/ Village of Imagination-2050.”*** More than 5000 students from 6th and 7th grade participated in this competition.

The students from Covestro’ schools were also the participants in this competition. While the children portrayed their beautiful imaginations through pictures, it only taught us that these young minds are worth much more than we can imagine! Best posters were selected and given prizes while other children were motivated to participate more and imagine more.

These are the imaginations of the future citizens and ARCH Foundation and Covestro India paved a way of identifying what our young minds want!

ARCH Foundation gave wings to the imagination of the children and gave Covestro an idea of knowing what our young minds want in the future of their cities.

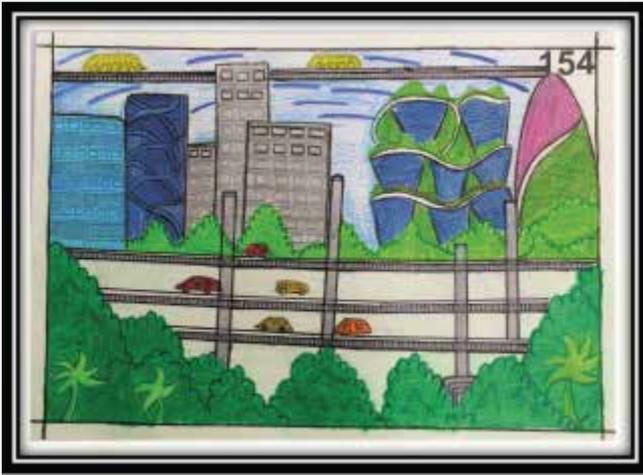
While many speak of one sided development, our young children spoke of the cost which we as humans will have to pay in the name of development.

These posters have given us one lesson, that it is never too late to start thinking about environment sustainability and preservation and we must act fast to ensure that our children in the future are not left to suffer.

Covestro’s aim is to develop a thinking and a rational child, and our activities are aimed at stirring all the areas of development within a child!

Covestro is proud of the achievements of its children and ARCH Foundation has indeed been a supporting structure that has supported the idea of holistic development of our children! We have a long to go....





## **2<sup>nd</sup> Position**

**Name: Anuradha, Standard: 7<sup>th</sup>**

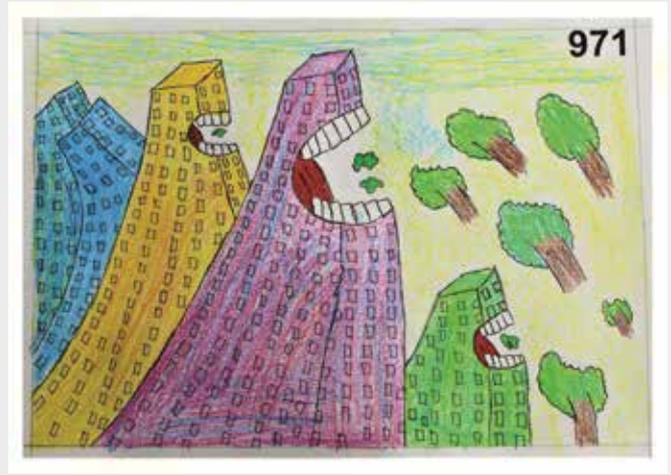
**School: MC Gopichand Inter College  
Greater Noida**

Anuradha has quite a futuristic vision about her future city for which she bagged the second prize in the poster making competition. A seventh standard girl from MC Gopichand Inter College, Noida is a proud daughter of her parents who come from a very humble background where father is a shopkeeper and mother is a home maker.

In her poster, Anuradha depicts a holistic development of her future city with infrastructural development that's intervened with environmental development. A beautiful message that Anuradha wants to give is that by all means development is necessary but we must not forget taking into consideration the environment which is very necessary for the human race.

What makes her poster even more unique is the fact that Anuradha is a very observant little girl and observing is one of her prime hobbies which makes her creative naturally. When she learnt about the poster making competition, she consulted her class teacher and shared her ideas, but the idea she painted in her poster was more of her own creativity!

We are proud of such artistic skills that children like Anuradha possess through which they can spread awareness of environment sustainability as well.



## **Consolation**

**Name: Avinash Vishwakarma**

**School: Mazidun English School  
Standard: 6<sup>th</sup>**

Having won a consolation prize for this gruesome yet realistic picture, Avinash Vishwakarma from Mazidun English School, Mumbai, is indeed ahead of his time in terms of maturity and imagination. An aspiring artist, Avinash comes from a small family where his father is a carpenter, while father crafts wood, little Avinash crafts imaginations.

His inspiration is his all-time favourite drawing teacher who constantly pushes him to stir his imagination more to create master pieces. Avinash, in his poster paints a very real image of the needy and greedy society that's lop-sided towards the very idea of development.

He depicts how the hunger for modernisation is going to kill our forest cover in the years to come and our very own human creations are going to be the monsters that are going to eat up the survival basics which we humans need the most. He makes an urgent appeal through his poster that development is good, but not at the cost of the trees which are more than a life supporting system for us.

Drawing and painting form the best of hobbies that Avinash indulges into and with this creativity of his, he aims to spread more awareness regarding a society that thinks of saving the environment from today itself!



### ***Consolation***

***Name: Shreja Singh***

***Standard: 6<sup>th</sup> Grade***

***School: KCS Girls Inter College, Greater Noida***

Young Shrejal Singh is only 12 years old, but is already dreaming of becoming an IPS Officer. Hailing from a mediocre family, Shrejal's idea of her future city is beyond anyone's imagination, it makes us wonder, can a child so young imagine so much and beyond?

Shrejal loves to draw and on learning that she is participating in the poster making competition, she was over enthusiastic about the idea and did a lot of internet surfing and discussions with her teachers regarding the future city of her imagination.

She came up with a unique idea of establishing a connection between the planets and going beyond relationships. The future city of her imagination talks of a cohesive world that is inter connected and without boundaries.

Such a young girls and what massive capacity to imagine which talks of building cohesiveness and brotherhood not only in this planet but going beyond the planet to ensure growth and development.

Shrejal depicted her idea on paper and won a consolation prize for her master piece. This little girl has a message for us adults that no matter whatever happens, in the end human race has a great capacity to think and develop relationships and above all the nation at large. We salute young Shrejal for her idea!

# WAY FORWARD



# WAY FORWARD

In a short span of two years Project Brighter World Lab has managed to strike the right chords. Number of schools from Greater Noida, Mumbai and Ankleshwar has been a part of this project which has benefited a large number of students.

It's a long road ahead to bring about sustainable and measureable changes in the attitude and outlook of all the stake holders of government aided schools. This cannot be done in a short span of time but needs proper plan of action and effective implementation methods. It is an ongoing process which will take its own time to provide the right kind of results.



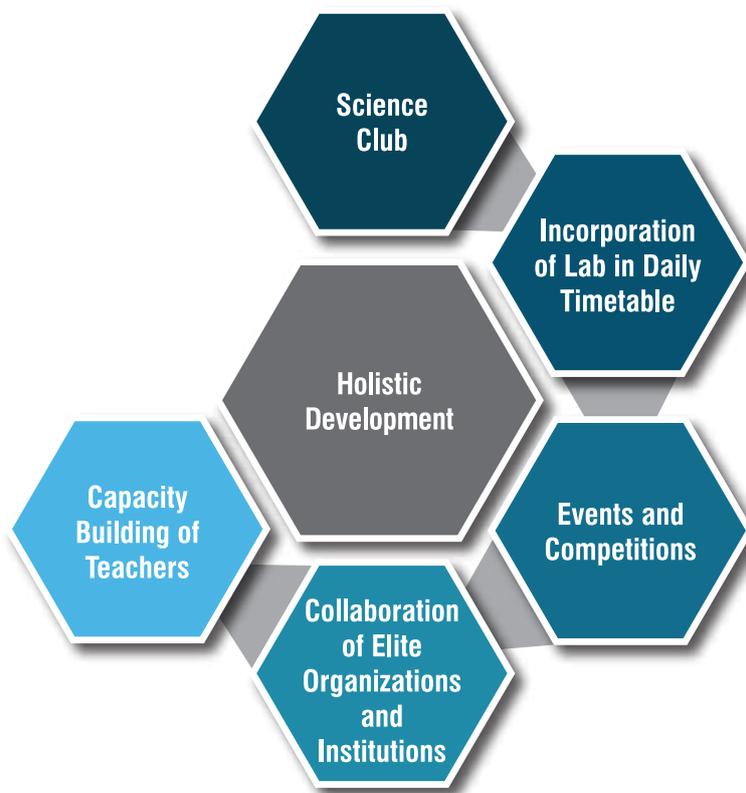
But, we are committed to our cause of enlightening young minds and create enriching experiences that aid in their evolution and success. The focus would be to provide the young mind with more learning opportunities in the field of Science which includes not just classroom learning but also includes practical and experimental learning. Project BWL in the next three years endeavours to reach out to more number of schools across 4 states in India.

The pilot run in the last two years has motivated us to step up and create more innovative and intensive tools of learning and resource building.

The success in the pilot phase itself is a motivation to implement the project in a more effective manner with an aim to cover more number of schools and students. We as a team are determined to make children fall in love with science, analytical thinking and logical reasoning for a lifetime.

The success of the initial intervention of Project Brighter World Lab has helped the team pave a new way for identifying future interventions to strengthen the existing systems in the school to achieve the project goals.

**Keeping in mind an approach of holistic development the key focus areas of this program will primarily include the following as shown in the diagram.**

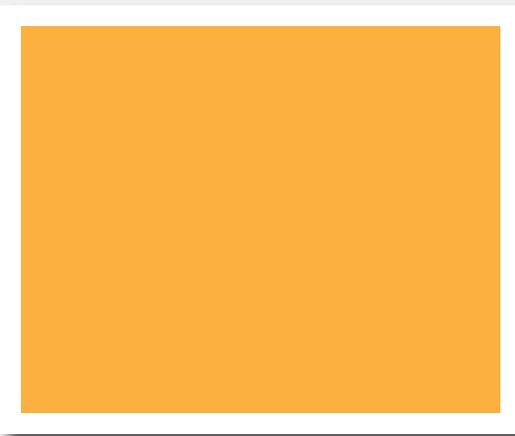


The strategic focus areas in the future for the project implementation would focus on holistic development of the children which would include creation of more science labs in more needy schools and incorporation of the practical learning classes in the timetable of the schools.

Also, more competitions and events in the areas of science to boost the morale of the students and interest in science would be held.

The future course also includes more collaborative efforts with agencies and organisations that would boost the academic development of the children.

Along with that another important component in the future intervention would include capacity building of the teachers on a regular basis so that the teachers are updated with the latest deliverables in academia related to the teaching of science.



**Advance Resource Centre for Humanitarian Development Foundation**

3<sup>rd</sup> Floor, 310 - Nilamber Primero  
Gotri Bhayli Road, Vadodara - 390021, Gujarat, India.

Email: [arch@archfoundation.in](mailto:arch@archfoundation.in)

Phone: +91 82380 09635 / 82380 096359