

Project Proposal- Mini Science Centre
FIVE STAR BUSINESS FINANCE LIMITED.
CHENNAI- TAMIL NADU



Submitted by NGO Implementation Partner

NGO Contact Person:

Name: **Mr. Jasmir Thakur**

Designation: Secretary & E.O

Organisation: Samabhavana

Email: jasmir@samabhavanasociety.org

Mobile: +91 9820238574

Website: www.samabhavana.in

Collaboration Donor Partner Contact Person

Name: **Mr. SIVARAMAKRISHNAN. L**

Designation: Head CSR

Organisation: Five STAR Business Finance Limited

Email: sivaramakrishnan.l@fivestargroup.in

Mobile:

Project Support requested under the Corporate Social Responsibility

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COVERING LETTER:

28th November 2023

To

Mr. SIVARAMAKRISHNAN. L

Head CSR.

Five STAR Business Finance Limited

Subject: - Proposal for establishment of 20 - 'Mini Science Centre' 10 in Chennai- Urban- Tamil Nadu- 10 in Telangana & 5 in Karnataka.

Dear Shri Sivaramakrishnan L.

Season's Greetings~~

Samabhavana is in conversation with your esteemed office regarding submitting the proposal for setting up Mini Science center- 10 in Chennai- Urban- Tamil Nadu, 10 in Telangana and 5 in Karnataka

The Mini Science Centre aims to inculcate basic concepts of *Science, Technology, Engineering, Mathematics* at school level, thereby encouraging inclination of students / learners towards science and technology. Models designed help students in identifying and experiencing the actual products which they learn from textbooks making it more practical oriented for learning of students specially who are from less privileged section of the society.

Additionally, we look forward along with your esteemed support to create curiosity and opportunity for the children to enrich their learning with best teaching aid and concretization of their concept. This is not only an infrastructural setup but also a sustainable process to improve the pedagogy with continuous capacity building of the teachers alongside with students.

Our implementation partner is 'STEM Learning'.

We look forward for your support to increase scientific temper in the under privileged children and a long fruitful association.

Thanking you in anticipation for providing us the opportunity to work for this Nobel cause.

Best Regards,

For SAMABHAVANA

Jasmir Thakur
Secretary & E.O
Samabhavana
Secretary





ABOUT US:

Samabhavana is a 23 year old Not for Profit Charity Commissioner & CSR 1, Niti Aayog Certified as well as by IICA- Ministry of Corporate Affairs- Social Justice Department of Social Justice Ministry, Government of India Registered organization- one of the very few Non-Government organizations to have combination of all these in India, along with Environmental health Safety, Child Protection & Diversity Policy in Place along with Non Discrimination code of conduct on gender, class, creed, race, age, sexual orientation, disability, ethnicity, religion, language, marital status or political conviction and much more rare to have its 22 years of Annual & Audit reports available online: <https://samabhavana.in/annual-reports.html>

Our objective is to ensure the under privileged children are given the right opportunities of life to persevere and have an edge in the competitive world.

We have worked with more than 300 schools in Mumbai, Thane and Navi Mumbai in promotion of science and sports education along with work in child protection along with setting up Mini Science Center Pan India + our work is in areas of **Health, Education, Skills education Gender, Livelihood** for more information on our: <https://samabhavana.in/Education.html>

Samabhavana has undertaken various project across India and Internationally, Projects in Mumbai have been supported by UNAIDS, Hivos, LOVE 146.org, SWISSAID; Pune supported by Maharashtra State AIDS Control Society and Pathfinder International- Bill Melinda Gates Foundation – Avahaan Project, Mathura Supported by RCSHA, SWISSAID, GroupeDeveloppement, further we have undertaken path breaking research in Cambodia, Philippines & Thailand.

Our Corporate Partners are Airport Authority of India (AAI), Rashtriya Chemical Fertilizers (RCF), Railtel, Hindustan Petroleum Corporation Limited (HPCL), Steel Authority of India Limited (SAIL), ONGC – Hazira, GAIL- Guna- M.P, IBM, Thomson Reuters, BSE, Edelwise foundation, TATA Community Services, HDFC Life, Disney- UTV, Brillio, Reliance Industries Limited, Suzuki Motorcycles India Private Limited and many more..... <https://samabhavana.in/associates.html>

We have collaboration with National Scheduled Tribe Finance Development (NSTFDC) – 25C Company under the Ministry of Tribal Affairs to work in tribal schools, areas and population Pan India.

OUR MISSION: To work in the area of Child Protection, Gender and Human rights.

We are committed to supporting deprived sections of communities to achieve their rights.

We shall enable the scientific temper in the communities through innovative programs.

OUR VISION: We see a world where every individual is happy and comfortable with oneself.

OUR VALUES: Guide us towards these accomplishments of our vision.

Truth: Acknowledge and articulate reality as you see it and experience it. Our actions will be transparent and show truthful intentions.

Happiness: To promote a happy state of mind through our actions, thus contagiously promoting higher levels of productivity.

Innovation: Seek unusual, untried solutions, thinking outside the box to achieve breakthroughs on difficult issues.

Courage: Go beyond fear and act even in the face of risk and opposition.

Commitment: To deliver as committed to delight our stakeholders thus achieving our own happiness.

Motto: “Dignity in Life”

For more information on us please visit: www.samabhavana.in

Samabhavana & STEM Learning have joined hands to ensure systematic delivery of the MSC in Projectivization mode and the synergy ensures proper documentation required, the two verticals are STEM R&D, Production and logistics wing which is a commercial entity and Samabhavana is a NGO that provides facilitation at all the field level and programmatic support to the projects and donors. STEM Learning to its credit has the models are approved by **6 SCERT- Maharashtra, Goa, Chhattisgarh Odisha Nagaland and Jammu & Kashmir** for their alignment with the curriculum. (www.stemlearning.in)

1. A: Mission Statement – Developing aptitude & Learning by fun.

1. B: Vision Statement: To be recognized globally for bringing innovative learning products in School Education and contributing to the society by reaching to the less privileged students

1. C Goal: Learning made accessible to all children for aptitude strengthening.

1. C.1: **Immediate Goal:** Reaching to Large population of under privileged Children Pan India

1. C.2: **Aim:** Ensuring equal opportunities for all under privileged Children.

1. C.3: **Immediate Aim:** Reaching 2000 schools in 2017-18

1. C.4: **Objective:** Empowerment of aptitude of children

1. C.5: **Specific Objectives:** Ignite Scientific interest in children so that –

- Aptitude developed.
- Difficult subjects like Science & Math's are made fun & easy.
- Discovery is a regular process.
- Scientific knowledge provided for day to day understanding.
- Possibly a stepping stone for career in Science & Math's.
- Parents feeling secured of their children's future.

Snapshot of work:



Model Designing



Teacher explaining to Students the model



Students undertaking model Designing



Students undertaking model Designing

1.0 Strategic areas of Focus

- ▶ **Provide quality teaching aids to improve teaching pedagogy** for students from less privileged section of society.
- ▶ **Enhance aptitude capacity and skills** of students to learn science and mathematics in more effective and interesting way and that also enhances teacher's skills.
- ▶ **Providing a platform to exhibit and execute** for Students and teachers through customized volunteer engagement programs/events.
- ▶ **Create partnership and collaboration** with various stakeholders to ensure programmatic sustainability for the project.

2.0 Project Need

Science education in India is faced by various practical challenges today. The first is the most basic problem that has persisted and resisted solution since early education is our inability to ease the fear of difficult subjects such as science and math's and makes it fun so as to help retain the knowledge and strengthen the foundation of the child for future.

Science is knowledge about the material, natural world. It is knowledge produced from systematic observation, measurement, experimentation, exploration, and speculation and theorization about natural objects, their properties and their interactions. Whether the topic of forces in Physics or the solubility of substances in water from Chemistry, or germination in Biology, the science curriculum directs attention to the material world, to things and processes in it, about which it would like children to learn—to notice, name and think about things based on concepts and theories that characterize these disciplinary approaches, further more mathematics establishes the foundation for calculation is a everyday part of life

However, disciplinary approach is essential in learning BUT it is also imperative and our task to ensure that we make the subject interesting; as, it is a challenge to large percentage of children to comprehend the formulas and equations; This not only limits the learning of students about science & Math's but also lessen the interest of children in science subjects and a fear psychosis is created in their minds with these subjects.

Our Honorable Prime Minister Shri Narendra Modiji during the 104th Indian Science Congress on 'Science and Technology for National Development, emphasized that the government is committed to support the different streams of scientific knowledge from fundamental science to applied science with an emphasis on innovations.

Prime Minister instituted the concept of 'scientific social responsibility'. Underlining the need to inculcate the concept of 'scientific social responsibility (SSR)', akin to corporate social responsibility, PM

Shri Modiji put the impetus on corporates to actively participate in developing science and technology centers across India.

We at Samabhavana- STEM Learning provides the Mini Science Centre – (MSC) that supports and encourages the students to develop aptitude & skills. Science activities done to stimulate curiosity, provide practical opportunities to explore a concept in easy ways, develop appropriate hands-on experience in understanding science and its concepts which is sadly absent today across all our education syllabus and more so with the burden of less teaching staff in rural, municipal schools which are for the underprivileged children.

3.1 Project Summary Statement

Mini Science Centre is a very educative innovative systemic instrument to revolutionize science & math's education that makes learning accessible. It is a catalytic channel that is interactive, engaging & fun that's aimed to raise awareness, grasp the information & strengthen the aptitude foundation of children; furthermore, also supports the teachers in teaching - with a focus on science & math's. Mini Science Centre has a range of *80 tabletop working models with 40 back-drops and manuals in regional language* providing hands-on experience for learning Science and Mathematics for Class 5 through 10.

MSC will be a permanent part of the school from installation onwards.

3.2 The expected outcome of the program is –

- The aptitude of students for learning science and mathematics improved by creating child friendly eco system which is fun and enjoyable.
- Empowering teachers with easy teaching aids.
- Improve teaching pedagogy by use of models in conducting the science and math class through better engagement of teachers in teaching.
- Aptitude foundation laid for Science and Math's educational consolidation.

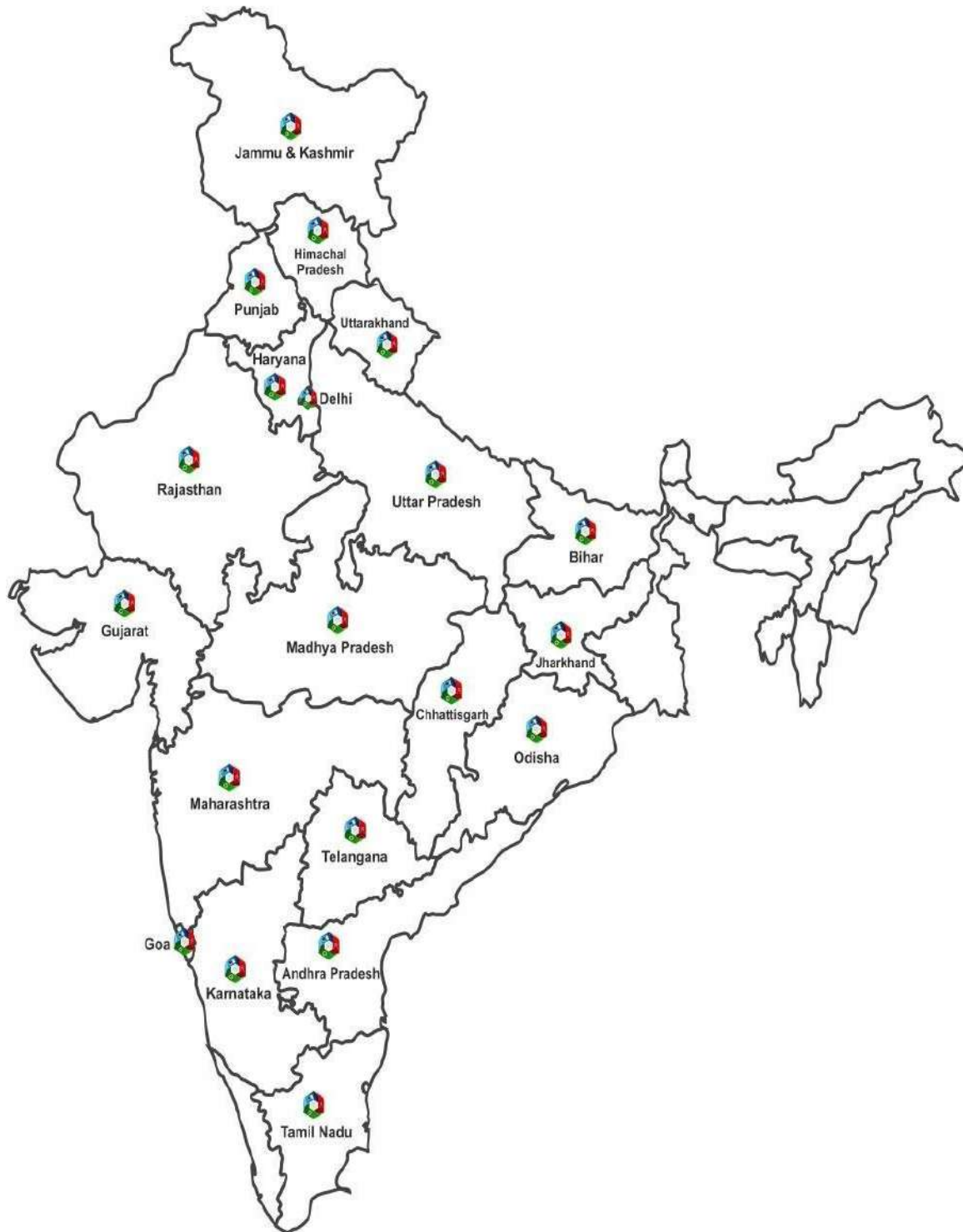
3.3 Project location: 10 in Chennai- Urban- Tamil Nadu - 10 in Telangana- 5 in Karnataka.

(Specific Districts to be provided by donor partner)

4.0 MSC Locations: Installed Pan India.

SAMABHAVANA –STEM learning has pan India presence in 24 states of India and have proven our process of Installation, delivery- Teachers Training Program along with Monitoring & Evaluation and Maintenance of MSC.

1. Maharashtra	2. Rajasthan	3. Gujarat	4. Karnataka
5. Himachal Pradesh	6. Jammu & Kashmir	7. Goa	8. Haryana
9. New Delhi	10. Tamil Nadu	11. Uttar Pradesh	12. Jharkhand
13. Chhattisgarh	14. Madhya Pradesh	15. Andhra Pradesh	16. Odisha
17. Telangana	18. Bihar	19. Uttarakhand	20. Punjab
21. Odisha	22. Dadra and Nagar Haveli	23. Assam	24. Rajasthan



5.0 Salient Points

→ SAMABHAVANA- STEM-Mini Science Centre (MSC)
→ Owned by school from day 1.
→ Fixed Infrastructure- Permanent Branding for Corporate.
→ 24 X 7 accesses to students and teachers.
→ In school program as it's based within the school premises.
→ 80 plug and play models + 40 backdrops -Mapped to 130 concepts of Maths & Science.
→ Student's analytical skills developed to enhance constructive imagination.
→ Certified by 6 SCERTS- Maharashtra, Goa, Chhattisgarh Odisha Nagaland and Jammu & Kashmir
→ Empowerment of teachers for sustainability by way of Peer lead teachers training.
→ 2- Teachers Training Program – specially designed training to ensure comfort and ownership from day 1.
→ 2- Monitoring & Evaluation to capture data so as to ensure proper reporting to donors.
→ Easy up scaling and replication.

6.0 SWOT Analysis

STRENGTHS (Internal factors) <ul style="list-style-type: none"> ✓ Timely set up of MSC. ✓ 80 Models& backdrops aligned with curriculum. ✓ Structured TTP. ✓ Planned M& E Process. ✓ STEM Plus app for better connectivity & response. ✓ Vibrant Volunteer engagement programs. 	WEAKNESS (Internal factors) <ul style="list-style-type: none"> ✓ Probable delay in delivery in models for MSC.
STRENGTHS (EXTERNAL FACTORS) <ul style="list-style-type: none"> → Only structured program that has been certified by 6 SCERTS aligning with educational curriculum. → Trust of more than 40 donors. → Successfully implemented Program Pan India in 24 states in more than 2000 schools. 	WEAKNESS (EXTERNAL FACTOR) <ul style="list-style-type: none"> → School withdrawal or no support. → Non-Availability for training on scheduled dates.
OPPORTUNITY (INTERNAL FACTORS). <ul style="list-style-type: none"> ✓ Constantly up grading its process and offerings. ✓ Constant development of new modules. 	THREAT (INTERNAL FACTORS). <ul style="list-style-type: none"> ✓ None, as the Organisation is managed by professionals and overseen daily by its Founder and MD.
OPPORTUNITY (EXTERNAL FACTORS) <ul style="list-style-type: none"> → To constantly better our TTP and M&E by learning's, experience and donor value addition. 	THREAT (EXTERNAL FACTORS). <ul style="list-style-type: none"> → Probable non acceptance of additional responsibility by school administration. → Probable delay in taking ownership beyond the project period.

7.0 TARGET POPULATION:

- **SCHOOLS: 25** Schools
- **STUDENTS: 12,500** students (500 appx/ school) *
- **TEACHERS: 50** teachers (2 appx/ school) *

**(Precise number will be provided post school finalization)*

8.0 Work Plan Narrative (M&E): (Attached)

8.1 Tentative Timeline plan

PO & Contract	School Identification.	Installation	1-TTP.	1st Basic M&E	2nd TTP.	Maintenance	2 nd M&E. (Annual Report)
1st week	2 -3 weeks from PO.	3-weeks from school identification & Closure.	15 to 30 Days from installation.	45-60 days from 1st TTP.	15-20th Day from 1st Follow-up.	20 to 25 weeks from Installation	45-60 days from project completion.

9.0 Project Sustainability:

Samabhavana seeks sustainability from two aspects namely programmatic and Financial.

9.1 Programmatic Sustainability:

The programmatic sustainability is achieved by undertaking the following actions:

- The Mini Science Centre model is replicable and scalable program.
- Zero Operation Cost.
- MSC enhances the very basic requirement of the schools to support their existing syllabus.
- A vibrant network of teachers will be available for training 3rd year onwards, creating a peer lead program.

9.2 Financial Sustainability:

Samabhavana shall provide on request the financials based on year-on-year basic support of the Program.

10.0 Value Addition: (Volunteer Engagement {optional-at cost to be discussed based on number of volunteers, number of students engaging, number of school's vis-a viz the activity to be undertaken})

1. **Industry Engagement:** - In which we will invite an expert /expert from the Organisation to give talk on connects between school learning and corporate business to further enhance their knowledge and understanding of the product correlation in real life.
2. **Quiz:** The corporate can develop a databank of quiz as games on their existing school subject of Math's and Science
3. **Model Learning:** As to how various scientific and Mathematical models are developed for easy learning.
4. Support in creating database of online reference/videos/website to be offered as support reference material.
5. STEM career opportunities in the industry- Talk by VE team on future prospects
6. And many more.....

11.0 Due Credit:

Samabhavana- STEM MSC ensures long term due credit as the MSC will be a permanent infrastructure in the school premises ensuring long term visibility and due credit - Starting from the entrance of the Centre to the backdrops and reference leaflet, the name and logo of the sponsor partner is inscribed. Each model is also labelled with the corporate partner's name and logo.

12.0 Budget: *Attached*

12.1: Payment terms

- 50% on signing of MoU, 25% on Installation, 25% on 1ST TTP.
- All Reports will be provided post each activity as mentioned in the Timeline plan.
- Utilization certificate on receiving 100% funds & Completion letter from Donor partner.

12.2: Samabhavana Role

Samabhavana plays the role of complete Monitoring & Evaluation of Project in terms of physical visits to locations to verify & oversee the installation, Teachers Training (TTP) and Monitoring & Evaluation (M&E).

Post these activities we provide reports with photography evidence, and on receiving the final 100% of funds along with Completion Certificate shall provide the Utilization Certificate (UC) from our Chartered Accountant (CA), the annual report will be provided.

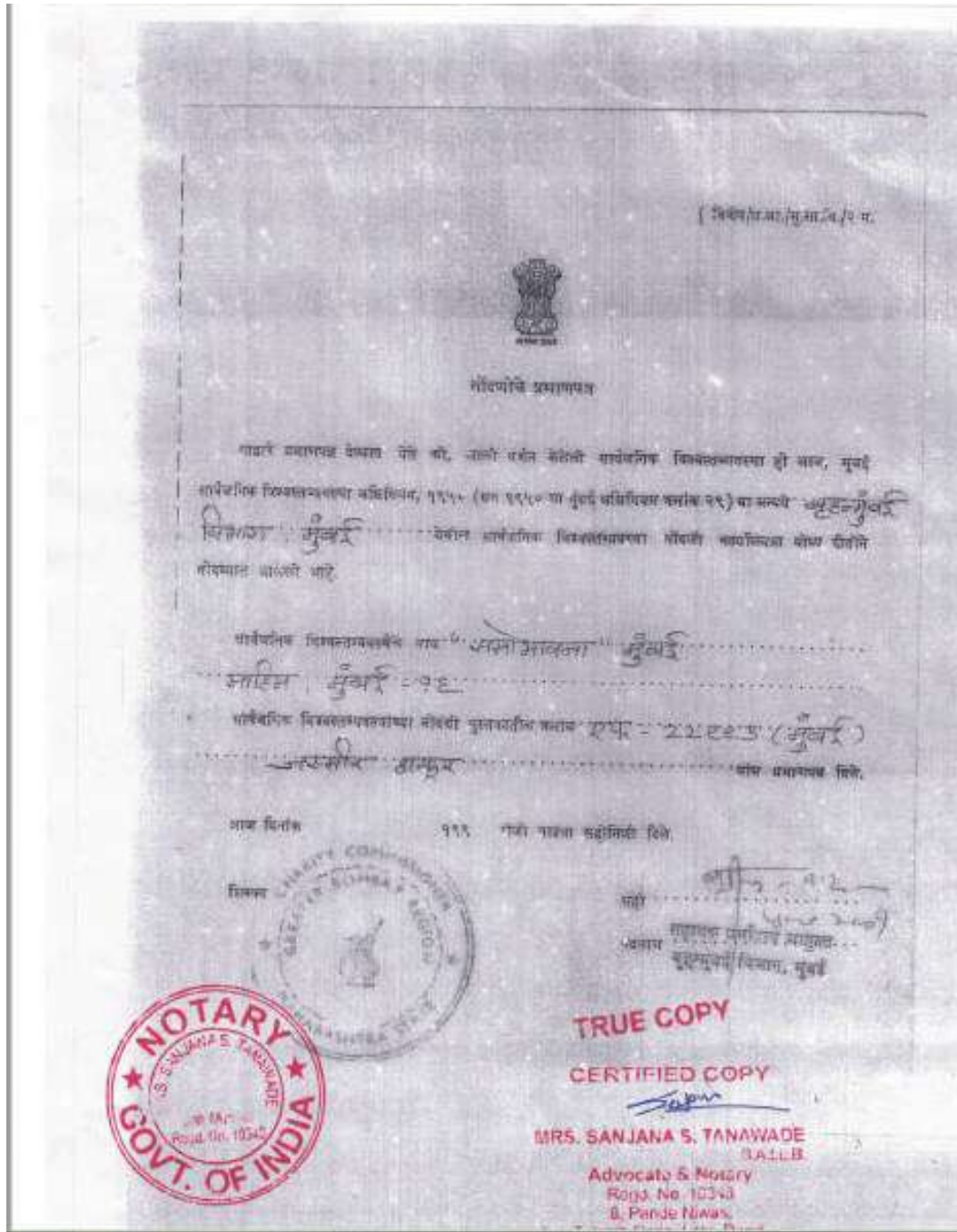
If required Inauguration and volunteer engagement and any other event are customized and at additional cost.

For SAMABHAVANA



Jasmir Thakur
Secretary & E.O
Samabhavana

Secretary





SAMABHAVANA PAN Card Copy

स्थायी लेखा संख्या /PERMANENT ACCOUNT NUMBER	
AACT54135J	
नाम /NAME	
SAMABHAVANA	
निगमन/बनने की तिथि /DATE OF INCORPORATION/FORMATION	
16-03-2000	
	<p>TRUE COPY CERTIFIED COPY MRS. SANJANA S. TANAWADE Advocate & Notary Regd. No. 10343 8, Pande Niwas, Tilwath Park, Lake Road, Bhamburda (W), Mumbai - 400 073.</p> <p> P. S. D.</p>
आयकर आयुक्त (कम्प्यूटर केन्द्र) Commissioner of Income-tax(Computer Operations)	

SAMABHAVANA 12 A Registration Copy

FORM NO. 10AC

(See rule 17A/11AA/2C)

Order for registration

1	PAN	AACTS4135J
2	Name	SAMABHAVANA
2a	Address	
	Flat/Door/Building	6, SUMANGAL CHS
	Name of premises/Building/Village	
	Road/Street/Post Office	Airoli S.O
	Area/Locality	NaviMumbai
	Town/City/District	THANE
	State	Maharashtra
	Country	INDIA
	Pin Code/Zip Code	400708
3	Document Identification Number	AACTS4135JE2021801
4	Application Number	394548420210322
5	Unique Registration Number	AACTS4135JE20218
6	Section/sub-section/clause/sub-clause/proviso in which registration is being granted	01-Sub clause (i) of clause (ac) of sub -section (1) of section 12A
7	Date of registration	28-03-2022
8	Assessment year or years for which the trust or institution is registered	From AY 2022-23 to AY 2026-2027
9	Order for registration:	
	a. After considering the application of the applicant and the material available on record, the applicant is hereby granted registration with effect from the assessment year mentioned at serial no 8 above subject to the conditions mentioned in row number 10.	
	b. The taxability, or otherwise, of the income of the applicant would be separately considered as per the provisions of the Income Tax Act, 1961.	
	c. This order is liable to be withdrawn by the prescribed authority if it is subsequently found that the activities of the applicant are not genuine or if they are not carried out in accordance with all or any of the conditions subject to which it is granted, if it is found that the applicant has obtained the registration by fraud or misrepresentation of facts or it is found that the assessee has violated any condition prescribed in the Income Tax Act, 1961.	
10	Conditions subject to which registration is being granted	
	The registration is granted subject to the following conditions:-	
	a. As and when there is a move to amend or alter the objects/rules and regulations of the applicant, prior approval of the Commissioner of Income Tax shall be sought along with the draft of the amended deed and no such amendment shall be effected until and unless the approval is accorded.	

SAMABHAVANA 80G Certificate Copy

FORM NO. 10AC

(See rule 17A/11AA/2C)

Order for approval

1	PAN	AACTS4135J
2	Name	SAMABHAVANA
2a	Address	
	Flat/Door/Building	6, SUMANGAL CHS
	Name of premises/Building/Village	
	Road/Street/Post Office	Airoli S.O
	Area/Locality	NaviMumbai
	Town/City/District	THANE
	State	Maharashtra
	Country	INDIA
	Pin Code/Zip Code	400708
3	Document Identification Number	AACTS4135JF2001801
4	Application Number	395215220210322
5	Unique Registration Number	AACTS4135JF20018
6	Section/sub-section/clause/sub-clause/proviso in which approval is being granted	11-Clause (i) of first proviso to sub-section (5) of section 80G
7	Date of approval	28-03-2022
8	Assessment year or years for which the trust or institution is approved	From AY 2022-23 to AY 2026-2027
9	Order for approval:	
	a. After considering the application of the applicant and the material available on record, the applicant is hereby granted approval with effect from the assessment year mentioned at serial no 8 above subject to the conditions mentioned in row number 10	
	b. The taxability, or otherwise, of the income of the applicant would be separately considered as per the provisions of the Income Tax Act, 1961.	
	c. This order is liable to be withdrawn by the prescribed authority if it is subsequently found that the activities of the applicant are not genuine or if they are not carried out in accordance with all or any of the conditions subject to which it is granted, if it is found that the applicant has obtained the approval by fraud or misrepresentation of facts or it is found that the assessee has violated any condition prescribed in the Income Tax Act, 1961.	
10	Conditions subject to which approval is being granted	
	The approval is granted subject to the following conditions:-	

SAMABHAVANA NITI AAYOG

The screenshot shows a web browser window with the URL ngodarpan.gov.in/index.php/ngo/progress. The page title is "Registration Progress". A green progress bar indicates "100% Completed". Below this, a blue box displays "Your Unique Id: MH/2009/0005655". A yellow box at the bottom contains the text: "Please be informed that following information is still required to be completed, Please complete the information by clicking on Below links provided before each Status". The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system clock indicates 12:47 on 03-07-2017.

SAMABHAVANA CSR 1



GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
OFFICE OF THE REGISTRAR OF COMPANIES

Dated : 06-04-2021

NOTE - THIS LETTER IS ONLY AN APPROVAL FOR REGISTRATION OF THE ENTITIES FOR UNDERTAKING CSR ACTIVITIES.

To,
SAMABHAVANA , 6,SUMANGAL CO OP HSG SOCIETY,SECTOR 2, AIROLI,,NAVI
MUMBAI,MH32,MH,400708

PAN : AACTS4135J

Subject: In Reference to Registration of Entities for undertaking CSR activities

Reference: Your application dated 06-04-2021 (SRN-T12003992)

Sir/Madam,

With reference to the above, it is informed that the entity has been registered for undertaking CSR activities and the Registration number is CSR00000687. Please refer the registration number for any further communication.



Registrar of Companies

ROC-DELHI

Note: The corresponding form has been approved and this letter has been digitally signed through a system generated digital signature.

SAMABHAVANA BANK MANDATE FORM

**REAL TIME GROSS SETTLEMENT (RTGS) / NATIONAL ELECTRONIC FUNDS TRANSFER (NEFT)
MANDATE FORM**

1. Vendor/customer Name: Samabhavana

i. Vendor /customer Address: 6, Sumangal Co Op Housing Society, Sector -2, Airoli, Navi
Mumbai 400708

ii. Vendor/customer e-mail id: jasmir@samabhavanasociety.org / jasmir@samabhavana.in

a. Particulars of bank account: Savings

b. Name of Bank: Union Bank of India

c. Name of branch: Mulund

d. Branch code: 01402

e. Address: 185-R, Alhad, P.K. Road, Mulund West, Mumbai 400080

f. Telephone number: 022 25617171 / 25600674

g. Account Number: 520101233367671

h. RTGS IFSC code of the bank branch: UBIN0901407

i. NEFT IFSC code of the bank branch: UBIN0901407

j. 9-digit MICR code: 400026225

k. SWIFT Code: UBININBBMUG

We hereby declare that the particulars given above are correct and complete.



(Signature)

FOR SAMABHAVANA
(Signature of vendor/customer)
President Secretary Treasurer

BANK CERTIFICATE

We certify that Samabhavana has an Account no. 520101233367671 with us and we confirm that the details given above are correct as per our records.

Bank stamp

कुले युनियन बैंक ऑफ इंडिया
Date: For UNION BANK OF INDIA

लेखाकार / Accountant शाखा प्रबंधक / Br. Manager
मुलुंड (प) शाखा / Mulund (W) Br. (0140)

(Signature of authorized officer of bank)

(Signature) 06/08/2024

SAMABHAVANA CANCELLED CHEQUE

यूनियन बैंक ऑफ इंडिया Union Bank of India

बोम्बे मुलुंड वेस्ट शाखा मुंबई - 400080
BOMBAY-MULUNDWEST Branch,
MUMBAISUBURBAN-400080
IFS Code : UBIN0901407

VALID FOR 3 MONTHS FROM THE DATE OF ISSUE
DATE

D	B	M	Y	Y	Y
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1GI39
या धारक को OR BEARER

PAY
रुपये RUPEES

अदा करें ₹

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खाता सं. A/c No.	520101233367671
चेक नं. Cheque No.	12018221

भारत की हमारी सभी शाखाओं में सममूल्य पर देय
PAYABLE AT PAR AT ALL OUR BRANCHES IN INDIA

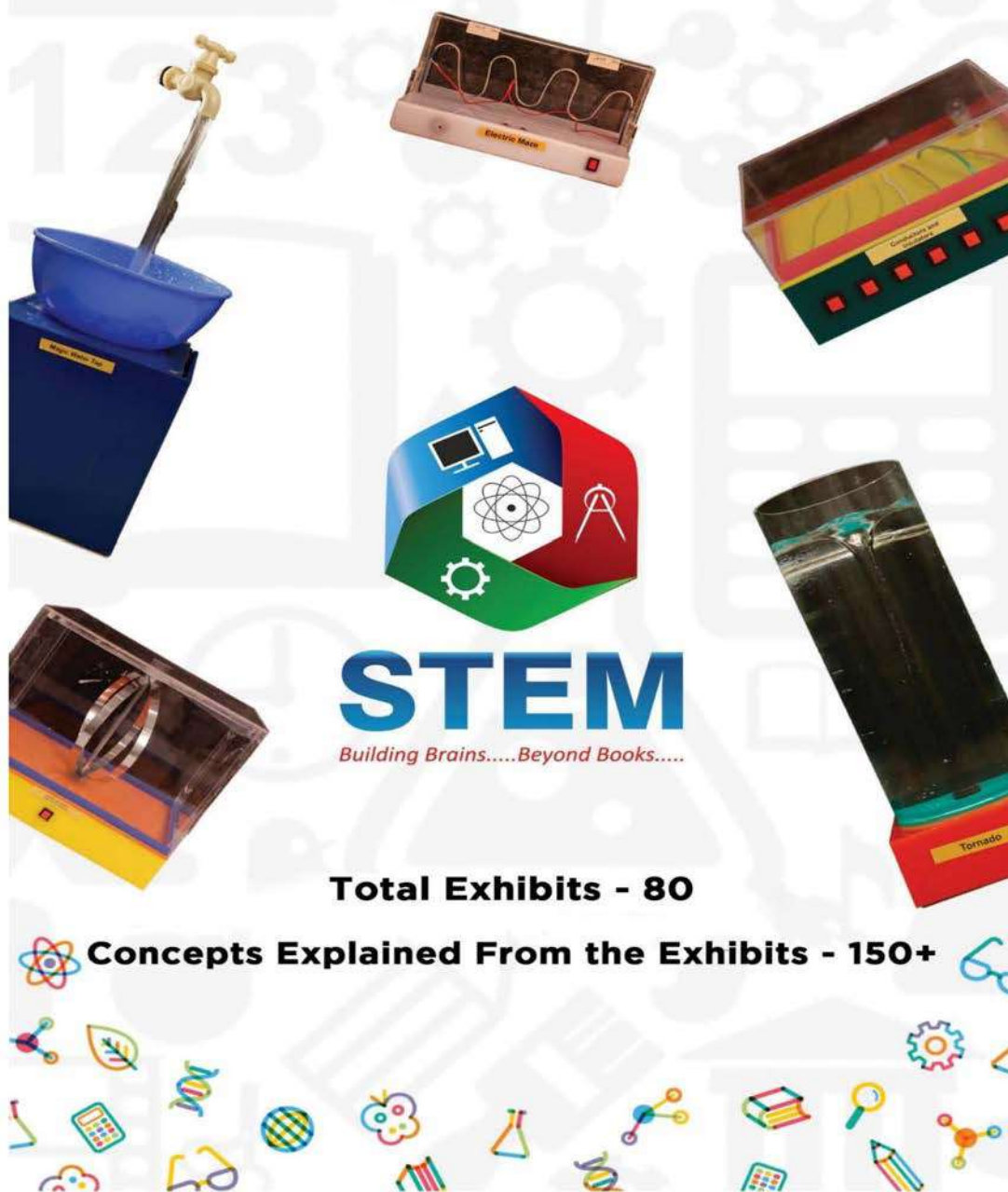
SAMABHAVANA
PLEASE SIGN ABOVE THIS LINE

MI NOTE 5 PRO
DUAL CAMERA

॥ 0 1 8 2 2 1 ॥ 4 0 0 0 2 6 2 2 5 0 1 4 0 2 0 ॥ 3 1







यूनियन बैंक ऑफ इंडिया Union Bank of India


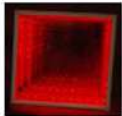





Annexure 3: List of 80 Models










Total Exhibits - 80



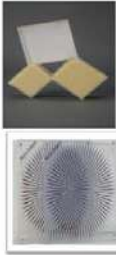
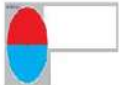
Concepts Explained From the Exhibits - 150+








EXHIBITS MAPPED AS PER SSC/CBSE BOARD				
Sl. No.	Exhibit	Image	Concepts	SSC/CBSE Board
1.	Constellation Viewer		Identification and study of Indian constellations About Constellations Stars Pattern	Std. 8 th -17. Our Universe
2.	Newton's Disc		White light is made up of 7 colours (VIBGYOR). Splitting of white light.	i) Std 7 th -15. Light ii) Std 8 th -16. Light iii) Std 10 th -11. The Human Eye and the colourful world
3.	Colour Shadow		Combinations of colour lights. Additive mixture of colour. Primary colours.	Std. 6 th -11. Light, Shadows and Reflection
4.	Periscope		Application of laws of reflection. Angle of incidence and angle of reflection	i) Std. 6 th -11. Light, Shadows and Reflection ii) Std 7 th -15. Light iii) Std 8 th -15. Light
5.	Kaleidoscope		Multiple reflection. Symmetric images. Patterns due to reflection	i) Std 6 th -11. Light, Shadows and Reflection ii) Std 6 th -13. Symmetry (Math's) iii) Std 7 th -15. Light iv) Std 8 th -16. Light
6.	Laws of Reflection		Laws of reflection for plane mirror. Angle of incidence = angle of reflection.	i) Std 6 th -11. Light, Shadows and Reflection ii) Std 7 th -15. Light iii) Std 8 th -16. Light iv) Std 10 th -10. Light - Reflection and Refraction







7.	Corner Mirror		Multiple reflection. Image formula ($N=360/A - 1$) Angled mirrors.	i)Std 6'th-11.Light, Shadows and Reflection ii)Std 7'th-15.Light iii)Std 8'th-16.Light
8.	Infinity Well		Multiple reflections. Image formation in parallel mirrors.	i)Std 6'th-11.Light, Shadows and Reflection ii)Std 7'th-15.Light iii)Std 8'th-16.Light
9.	Magic Water Tap		Optical Illusion. Refractive index of medium, refraction	Std. 10'th-10.Light - Reflection and Refraction
10.	Total Internal Reflection.		Total internal reflection, bending of light ray. Optical fibre	Std. 10'th-10.Light - Reflection and Refraction
11.	Fun with Magnets		Types of magnets Magnetic field and properties of field lines.	i)Std 6'th-13. Fun with Magnets ii)Std 10'th-13.Magnetic effects of electric current ii)Std 10'th-13.Matter in our surroundings
12.	Law of Inertia		Newton's first law. Inertia is opposing change in state of rest.	Std. 9'th-9.Force and Law of Motion
13.	Circle and Ball		Newton's first law. Inertia is opposing change in motion. Centripetal force.	Std. 9'th-9.Force and Law of Motion







14.	Action and Reaction		Newton's 3rd law of motion. For every action there is equal opposite and reaction	Std. 9 th -9. Force and Law of Motion
15.	Parrot in the Cage		Persistence of vision. Frames per second. The basic concept of animation.	Std. 8 th -16. Light
16.	Zoetrope		Persistence of vision. Frames per second. The basic concept of motion picture.	Std. 8 th -16. Light
17.	Pin screen		Pressure Inverse relation of Pressure Area Representation of pixels	Std. 9 th -9. Force and Law of Motion
18.	Floating Ball		Bernoulli's principle. Pressure difference and lift.	Std. 7 th -8. Winds, Storms and Cyclones
19.	Floating Fan		Bernoulli's principle. Air pressure difference	Std. 7 th -8. Winds, Storms and Cyclones








20.	Tornado		Atmospheric disturbances, currents, storms. Vortex of wind.	i)Std 7 th -8.Winds, Storms and Cyclones ii)Std 8 th -15.Some Natural Phenomena
21.	Hand Pump		Application of pressure to pump water. Pressure-volume relation.	i)Std 7 th -11.Transportation in Animals and Plants ii)Std 10 th -6.Life Process
22.	Anamorph		Perspective, Viewpoints Illusion and Graphical projection	Std. 10 th - 11. The Human eye and The colourful Word
23.	Floating Magnets		Properties of magnet. Attraction in opposite poles and repulsion in like poles	i)Std 6 th -13. Fun with Magnets ii)Std 8 th -11.Force and Pressure
24.	Magnetic Field Tube & Immiscible Fluid		Magnetic field and properties of magnets. Density of liquid	i)Std 6 th -13. Fun with Magnets ii)Std 10 th -13.Magnetic effects of electric current ii)Std 10 th -13.Matter in our surroundings
25.	Moment of inertia		Moment of inertia Rotational inertia. Distribution of mass.	Std. 10- 6. Force and Pressure
26.	Lazy Tube		Magnetic Field and Forces, Eddy current, Lenz Law.	i)Std 6 th -13. Fun with Magnets ii)Std 10 th -13.Magnetic effects of electric current









27.	Hyperbola		Conic sections. Shape of hyperbola.	i)Std 8'th-16.Light (Persistence of vision)
28.	Magnetic effect of electric current		Magnetism Magnetic effects of electric current. Compass deflection. Oesterd's experiment	Std. 10- 13. Magnetic Effect of Electrical Current
29.	Pythagoras Model & Moire Pattern		Pythagoras theorem and Interference of Light	i)Std 7'th-6.The Triangle and its Properties ii)Std 9'th-9.Areas of Parallelograms and triangles iii)Std 10'th-6.Triangles Std 10-, 10. Light- Reflection and Refraction
30.	Elliptical Carrom Board		Conic sections. Properties of ellipse.	i)Std 8'th-13.Sound ii)Std 9'th-12.Sound
31.	Two Congruent Right Triangles		Comparison of area of different geometric shapes. Congruent shapes.	i)Std 6'th-5.Understanding Elementary Shapes ii)Std 7'th-11. Perimeter and Area
32.	Area of a Circle		Simple illustration of derivation of area of circle	i)Std 6'th-5.Understanding Elementary Shapes ii)Std 7'th-11. Perimeter and Area iii)Std 10'th-12.Areas related to circle

33.	$(a+b)^2 = a^2 + 2ab + b^2$		Geometric illustration of basic algebraic identity.	i)Std 7 th -12.Algebraic Expression ii)Std 8 th -19.Algebraic expression and Identities iii)Std 9 th -2.Polynomials
34.	$(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$		Geometric illustration of basic algebraic identity.	i)Std 7 th -12.Algebraic Expression ii)Std 8 th -19.Algebraic expression and Identities iii)Std 9 th -2.Polynomials
35.	$a^2 - b^2 = (a+b)(a-b)$		Geometric illustration of basic algebraic identity.	i)Std 7 th -12.Algebraic Expression ii)Std 8 th -19.Algebraic expression and Identities iii)Std 9 th -2.Polynomials
36.	Sum of the angles of a triangle		Elementary theorem of math. "Sum of all three angles of any triangle = 180 ° Linear pair.	i)Std 6 th -5.Understanding Elementary Shapes ii)Std 7 th -6.The Triangle and its Properties
37.	Tangram		Interesting tiling puzzle. Basic geometric shapes.	To all standard
38.	Parking Puzzle		Mathematical logic Algorithm Brain Teaser	To all standard
39.	Organ pipes		Sound of different frequencies and wavelengths. Musical notes.	i)Std 8 th -13.Sound ii)Std 9 th -13.Sound

40.	Area of rhombus		Simple illustration of derivation of area of rhombus	Std. 10 th -6. Area and mensuration
41.	Transverse wave pendulum		Mechanical wave. Basic concepts of transverse wave. Actual Representation of vibrating particles and propagating wave	i)Std 8'th-13.Sound ii)Std 9'th-13.Sound
42.	Area of triangle		Simple illustration of derivation of Area of Triangle	Std. 10 th - 6. Area and mensuration
43.	Area of parallelogram		Simple illustration of derivation of area of parallelogram	Std. 10 th - 6. Area and mensuration
44.	Coupled Pendulum		Resonant frequency. The resonant frequency depends on the pendulum's length. Longer pendulums have lower frequencies.	i)Std 6'th-10.Motion, and Measurement of Distances ii)Std 7'th-13.Motion and time
45.	Solar Light		Conversion of solar energy into electricity. Application of renewable energy sources. Solar panel, semiconductors.	Std. 10'th-14.Sources of Energy






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45.	Solar Light		Conversion of solar energy into electricity. Application of renewable energy sources. Solar panel, semiconductors.	Std. 10'th-14.Sources of Energy

46.	Wind Mill		Working of wind mill. Conversion of wind energy into electricity.	Std. 10 th -14.Sources of Energy
47.	Shape of earth due to rotation		Shape of earth Rotational force Centrifugal force	Std. 10 - 6.Gravitation
48.	KE PE Track		Conversion of energy. Potential and Kinetic energy.	i)Std 6 th -10.Motion, and Measurement of Distances ii)Std 7 th -13.Motion and time iii)Std 9 th -11.Work and energy
49.	Loop The Loop		Conservation of energy. The minimum speed necessary to complete the loop without falling.	Std 9 th -11.Work and energy
50.	Rope Puzzle		Logic and Mathematical shapes study of surfaces	to all standard
51.	Refraction Cylinder		Refraction of light Alphabet symmetry	Std. 10 th - 10. Light- Reflection and Refraction
52.	Newton's Cradle		Conservation of energy, conservation of momentum and friction.	Std. 9 th -9.Force and Law of Motion

53.	Reflection Transmission		Application of laws of reflection. Reflection and Transmission of light.	i)Std. 6 th - 11. Light, shadows and reflection ii)Std. 7 th - 15. Light iii)Std. 8 th - 16.Light
54.	Hand Battery		Electric potential difference. Electric battery. Chemical effect of electric current	Std. 10 th -3.Metals & Non - Metals
55.	T Puzzle		Brain Teaser Tiling Puzzle	All standards
56.	Cone Run Uphill		Centre of mass.Gravity pulls on the centre of mass of objects.	Std. 9 th -10.Gravitation
57.	Tower Of Pisa		Center of mass. Centre of gravity. Gravitation. Stability of structure.	Std. 9 th -10.Gravitation
58.	Lever		Simple Machines Lever. Type of lever.	Std. 9 th -11.Work and energy
59.	Pulley Block		Pulley- simple machine. Combination of pulley. Mechanical Advantage.	Std. 9 th -11.Work and energy
60.	Wheel and Axle		How it is easy to rotate wheel when force is applied at a point distant from center.	i)Std 9 th -11.Work and energy

61.	Heat Absorption		Black Body, Heat Absorption and Reflection, Colour Temperature	Std. 7 th -4.Heat
62.	Conductors and Insulators		Electrical conductivity Types of conductor and insulator	i)Std. 6 th - 12. Electricity and circuit ii)Std. 8 th - 4. Materials: metals and non-metals iii)Std. 10 th - 3. Metals and non-metals
63.	Viscosity Tube		Buoyancy. Viscosity. Density	i)Std 5 th -7.Experiments with water ii)Std 9 th -10.Gravitation
64.	Rock and Minerals		Different types of rock and mineral samples. Difference between them.	Std 9 th -14.Natural Resources
65.	DNA		Double helix structure of DNA. A-T and G-C pairs.	Std 10 th - 9.Heredity and Evolution
66.	Lateral Shift		Refraction of light, deviation in path.	Std. 10 th -10 Light - Reflection and Refraction
67.	Force & types of friction		Friction, speed due to surface texture. Rolling Friction.	Std. 9 th - 11. Work And Energy
68.	Funny mirrors		Distorted mirror. Convex and concave mirrors	Std. 10 th - 10 Light - Reflection and Refraction

69.	Marble Slide		Conservation of momentum.	Std. 9 th - 9. Force and laws of motion
70.	Resonance		Frequency and length of object, resonating frequency.	Std. 9 th - 4. Sound
71.	Weight Illusion		Weight Illusion Volume and Density	Std. 9 th - 1. Matter - Its Nature & Behaviour
72.	Area of Trapezium		Area of trapezium using parallelogram	Std. 10 th - 6. Area and mensuration
73.	Sum of angles of Quadrilateral		Sum of angles of Quadrilateral Complete angle	i) Std 6 th - 5. Understanding Elementary Shapes ii) Std 9 th - 6. The Quadrilateral
74.	$(A+B)^2 - (A-B)^2 = 4AB$		Geometric illustration of basic algebraic identity.	i) Std 7 th - 12. Algebraic Expression ii) Std 8 th - 19. Algebraic expression and Identities iii) Std 9 th - 2. Polynomials
75.	Electric bell		Electric Circuit, Electromagnet and magnetic effects of current	i) Std - 7 th - 14 Electrical currents and its effects. ii) Std - 10 th - 12. Magnetic effects of Electric Current.

76.	Human Torso		Human Body Anatomy Organs Functions of Body parts	Std. 6th- 8. Body Movements
77.	Ear & Eye		Sense organs Functions of body parts Vision Hearing	Std. 5th - 1. Super Senses
78.	Human Joints		Types of joint In human body Bones and ligaments	Std 6th - 8 Body Movements
79.	Plant Cell		Eukaryotic cells Difference between cells Parts of cell	Std 9th- 5. The Fundamental Unit of Life
80.	Animal Cell		Difference between cells, Parts of cell	Std 9th - 5. The Fundamental Unit of Life